



Abdul Rahman Fares

## The ethical challenges experienced by healthcare workers during the war in Syria

A qualitative research project  
and comparison with ethics frameworks

Universitätsverlag Göttingen



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*Contact*

Abdul Rahman Fares

E-Mail: [abdulrehman.fares@gmail.com](mailto:abdulrehman.fares@gmail.com)

Dissertation, Georg-August-Universität Göttingen

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ALEPPO, SYRIA - APRIL 30: Civil defense workers and civilians carry out search and rescue works after the Russian forces staged air-strikes in Bustan al Qasr Neighborhood of Aleppo, Syria on April 30, 2016. Beha el Halebi / Anadolu Agency



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# 1 Introduction

## 1.1 Disaster ethics

Disasters, from natural phenomena to human-made conflicts, indiscriminately affect societies, where the gravity of impact varies significantly depending on time, place, and extent (Karadag & Hakan, 2012, p. 609). For instance, regional and global military conflicts present very complex and unpredictable situations with far-reaching consequences. Wars and armed conflicts frequently destroy infrastructure, including hospitals and medical facilities, and in some instances lead to a complete collapse of the community. Such military activities not only wreak physical destruction to communities but also threaten the safety of civilians, healthcare personnel, and humanitarian workers on both sides of the conflict, which results in injuries and displacement. Prolonged periods of war or armed conflict drain essential resources and can exacerbate the affected country into a protracted crisis, directly impeding the vital, life-saving work of the health and humanitarian sectors.

This complex situation of war and its damaging effects on communities creates many ethical challenges and dilemmas, such as the difficulty of dealing with scarce resources, the issue of fairness in the distribution of resources, and the priority of relief and rescue efforts. These challenges often directly affect healthcare and humanitarian workers due to the nature of their work and are thus directly linked to their choices and commitments. The response to disasters, therefore, must go beyond established facts and consider the obligations, values, and choices of those

who are both affected and responding to the situation (Zack, 2009). For instance, context and cultural dimensions are factors affecting the nature of the ethical principles and values and determine how these approaches are adopted and applied. This scenario becomes even more complicated when discussing and navigating answers to problems that arise in health care and medicine (Kalokairinou, 2016). Health care for survivors of disasters is of utmost importance, and yet, healthcare workers regularly face extraordinary moral challenges.

Given the moral challenges arising from disaster situations for healthcare workers, and the insufficiency of daily-life ethical frameworks to capture these complexities, attention within the field of bioethics has recently been raised to understand disaster situations from a philosophical and ethical perspective. This in turn established a new field within ethics and bioethics (Komenská, 2016). “Disaster ethics” is a relatively new research area in bioethics that formed as a result of the significant and pressing ethical problems involved in health care provision during disasters (O’Mathúna et al., 2014). As it is essential to integrate well-reflected moral values and principles in every aspect of health care (Karadag & Hakan, 2012), within this field, researchers, healthcare givers, humanitarian workers, and other related professionals and organizations evaluate and analyze ethical theories and principles to find solutions for moral problems, barriers, and gaps that often arise in disasters and humanitarian relief.

Often the overwhelming situations caused by disasters distract or even delay consideration of the ethical challenges that disasters cause in real-life contexts. Frequently, questions such as who has the right to get priority access to treatment, given the lack of medical resources and a mass casualty situation, remain unanswered (Geale, 2012). Because the public increasingly recognizes that humanitarian and healthcare workers are trusted to support and assist vulnerable groups and populations, they have a fiduciary responsibility that makes it essential to be upfront and informed about how and why they make ethical choices (Fraser et al., 2014).

Nonetheless, the outpouring of well-intentioned help by disaster responders is often tainted by criticisms about their services’ lack of preparation, coordination, appropriate skills, and ethical soundness (O’Mathúna, 2016, p. 8). In addition, disaster responders, including healthcare workers who help injured and traumatized individuals, often face moral dilemmas, but these have received relatively little attention until recently (O’Mathúna, 2016, p. 9). Therefore, special attention must also be given to the ethical challenges that usually go unrecognized within the multiple layers of complexity created by disasters. For example, deciding between two competing options, where the benefits of one option could be unfeasible considering the costs of the other option, is an ethical dilemma faced by most healthcare workers during wars who must choose between two options, to either stay and work, thus exposing themselves and their families to danger, or to leave and thus feel guilty and constant remorse for leaving their duty.

## 1.2 Syria, geopolitical and demographic overview

This study was conducted in Syria, a country afflicted by war since 2011. This section provides an overview of Syria to better understand the country's context and demographic situation, the stages of the conflict, and the historical and present situation of the health sector. Additionally, the critical challenges facing the health and humanitarian sector are further described.

Syria borders the Mediterranean Sea, between Lebanon and Turkey, in the Middle East at approximately 184,050 sq. km (Gall & Gall, 2004, p. 610). Syria is a country rich in ethnic and religious groups. The main ethnic groups include Syrian Arabs (74.9%), Bedouin Arabs (7.4%), Kurds (7.3%), Palestinian Arabs (3.9%), Armenians (2.7%), and other minor ethnic groups (3.8%) (Ochsenwald et al., 2021). The primary religious group is Sunni Muslim (74%), followed by Alawites (a Shiite branch) as the second largest religious group (11%), Druze (3%), and Christians (predominantly Roman Catholic and Orthodox) constituting about one-tenth of the Syrian population (Ochsenwald et al., 2021). Most of the population speaks Arabic. In terms of its total population size, Syria witnessed a significant decrease due to the ongoing war; in 2019, for example, the population was 20% lower than in 2010 due to numerous war casualties and the outflow of refugees (Population Division of the UN Department of Economic and Social Affairs, 2019, p. 12)

Tracing the current conflict in Syria requires an overview of the country's modern history. After gaining independence in 1946 from the French occupation, Syria became its own republic and established a new government based on elections during the occupation period. Military coups organized by opposition to the new government, however, began shortly and heightened between 1949 and 1970, culminating in the rise of the Ba'ath Party and Hafez al-Assad's assumption of power (Ochsenwald et al., 2021). Hafez al-Assad ruled Syria as an authoritarian until he died in 2000 (Britannica, 2021, October). Immediately following his death, the positions of president, leader of the Ba'ath party, and commander-in-chief of the Syrian Armed Forces went to his son, Bashar al-Assad, when the Syrian parliament amended the constitution in order to facilitate Bashar al-Assad assuming the presidency due to his young age. Bashar al-Assad followed his father's footsteps and continues to rule Syria presently in an authoritarian manner (Britannica, 2021, November).

Dissatisfaction with this leadership coincided with momentum from the Arab Spring movement, and in early 2011 protests erupted in Syria to peacefully demand political reforms and restore civil rights (Britannica, 2021, November). The Syrian army responded with violent repression, however, which aggravated the situation and turned a peaceful movement into an armed conflict, thus commencing the war. Several international governments and regional states became involved in the Syrian conflict, either directly or through the support of their proxies. During the war years, the control over the land changed continuously and significantly between the conflicting parties. In 2018, for example, the rule of Syrian territory was divided

between the Syrian regime forces, the Syrian opposition factions, the Islamic State in Iraq and Syria, the Syrian Democratic Forces, and the international forces (Mohamed et al., 2020). The timeline below outlines major events contributing to the conflict and control change (Cornish & al-Omar, 2020).

### Timeline

- In 2011, civil war breaks out. The European Union and the United States impose sanctions on the Syrian regime for alleged human rights violations.
- In 2012, Turkey and other countries opposed to President Bashar al-Assad arm and train rebel groups.
- In 2013, the Syrian regime is accused of carrying out a chemical weapons attack in the Damascus countryside.
- In 2014, ISIS seizes vast swaths of land in Syria and Iraq.
- In 2015, Russia sends its air force to help the Syrian regime. Large numbers of refugees make their way to Europe.
- In 2016, the regime regains Aleppo from the hands of the rebels. Turkey establishes areas in northwest Syria under its control.
- In 2018, the regime regains tracts of land, including the southern provinces.
- In 2019, ISIS loses its last piece of land. Turkey launches a new attack on the Kurdish forces.

As of 2021, the Syrian conflict has caused unprecedented destruction and displacement, with more than 6 million Syrians fleeing the country and 6.7 million remaining internally displaced Syrian men, women, and children with untold suffering (United Nations News Centre, 2021). The United Nations News Center also estimated in 2021 that while more than 13 million people needed health-related assistance, at least half of the country's hospitals, clinics, and primary health care centers were destroyed or only partially functioning (United Nations News Centre, 2021).

## 1.3 The healthcare system in Syria

Health care in Syria has been under the auspices of the state since the Ba'ath Party assumed power. It includes the supervision and control of organizational structures and strongly focuses on primary care, health promotion, and disease prevention (Sen & Faisal, 2015, p. 318). Very few studies evaluating this state-run health sector in Syria have been conducted due to inconsistent data records, the lack of research cooperation, and the scarcity of researchers trained in researching health systems (Sen & Faisal, 2015, p. 318). However, data from the Syrian Ministry of Health show a marked improvement in health indicators in the country before the war (Kherallah et al., 2012, p. 51). According to Kherallah et al. (2012), the life expectancy at birth rose from 56 years in 1970 to 73.1 years in 2009. In addition, the infant mortality



rate has decreased from 132 per 1,000 live births in 1970 to 17.9 per 1,000 in 2009. In 2010, health care spending was 3.276% of the country's gross domestic product (The World Bank, 2021). Nevertheless, as identified by Kherallah et al. (2012, p. 51), many issues related to healthcare provision arose during the pre-war period and were never adequately addressed, such as poor data validation, general access inequality, lack of transparency, insufficient use of capacity and coordination between health service providers, unequal distribution of human resources, rapid turnover of skilled and leadership personnel, inadequate number of qualified healthcare workers, and the unregulated expansion of private service providers, where the latter resulted in an uneven distribution of health and medical services between geographical regions.

The war not only exacerbated these challenges but also inflicted catastrophic damage to the health sector's physical infrastructure of hospitals, health facilities, and healthcare workers. Many hospitals and medical centers under the regime's control continued to operate despite damages and the increasing pressures of war; however, most hospitals become located under the power of opposition areas were heavily targeted and destroyed, forcing healthcare workers to establish hidden field hospitals, many of which were subsequently bombed. The economic loss due to the notable increase in official military spending at the expense of other sectors, including the health sector (Syrian Centre for Policy Research et al., 2015, p. 29), also resulted in notable consequences to the access and provision of healthcare resources. As a result, the health index decreased by 36.3% at the end of 2014 compared to 2010 (Syrian Centre for Policy Research et al., 2015, p. 42) and the average life expectancy decreased from 75.9 years in 2010 to 55.7 years in 2014 (Syrian Centre for Policy Research et al., 2015, p. 9). Moreover, the war period saw a steady decrease in the number of healthcare workers. For example, the number of doctors and nurses decreased by at least 20% between 2010 and 2016, from 31,194 to 22,485 doctors and 33,959 to 26,908 nurses (Statistical Economic and Social Research and Training Centre for Islamic Countries, 2022).

## 1.4 Statement of the problem

The war has caused a catastrophic humanitarian and health crisis in Syria. With more than half of Syria's 2010 population forcibly displaced, over 400,000 casualties attributed mostly to civilians (Onder et al., 2017), and almost 60% of Syrian hospitals destroyed or damaged (Save the Children, 2014), the burden placed on healthcare workers to secure their personal safety while carrying out their professional duties within a network of scarce and damaged resources remains a considerable ethical issue. Many healthcare workers fled Syria, but those who remain are at serious risk and experience threats, imprisonment, or death. The practitioners who continue providing health care for those living through the war face a three-pronged ethical dilemma between their duty to patients, the level of acceptable risk to their own

lives, and their moral obligation to their families as they must balance their professional responsibilities with their duties to families and personal security.

First, within the framework of their professional duties as healthcare workers are ethical issues related to providing care under the circumstances of war. For instance, the few remaining operating hospitals are usually overwhelmed by injured civilians and are short on medicines and other medical supplies; for outpatient cases, even when drugs become available, they are too expensive for the majority of patients. Consequently, healthcare workers continually face ethical dilemmas about who to treat first and how to allocate the few available resources without discrimination.

Caring for pediatric populations with scarce resources brings unique ethical issues within their professional obligations. Children have been left without vaccinations, which has, for example, resulted in a poliomyelitis outbreak (Ratnayake et al., 2014). Another challenge may occur if practitioners need to isolate children with infectious diseases for public health reasons but may be unable to obtain parental permission; in this example, the healthcare workers will be unsure how to balance the autonomy of the parents, the wellbeing of the children, and their professional duty to not only the child but also the health of the population.

This balancing act of duties and obligations during a war when there are not enough personnel to provide medical care and when political values are ignited create ethical issues for workers related to their “do no harm” duty. Instances of unqualified healthcare workers operating on patients in battlefield clinics (Giovanni, 2014) and being unable to provide appropriate care have led to some injured patients’ limbs being amputated inappropriately (Save the Children, 2014). Additionally, healthcare workers in government hospitals could choose to engage in war crimes and torture against patients because of their political orientations (Amnesty International, 2011; Miller, 2012). For example, in 2022, the trial of a Syrian doctor began in Germany on charges of committing crimes against humanity and torture in the military hospitals of the Syrian regime (Deutsche Welle, 2022; Alkousaa & Uhlig, 2022). The doctor, who arrived in Germany in 2015, was charged by a Frankfurt prosecutor with 18 charges of torture and murder (Al Jazeera, 2022), examples of which include “dousing the genitals of teenagers with alcohol and setting them on fire, of kicking prisoners’ broken arms and legs, of administering those who protest against mistreatment with injections” (Deutsche Welle, 2022). The involvement in torture points to severe ethical violations of the medical profession’s universal moral codes. Unfortunately, in some cases, healthcare workers do not choose but rather are forced to aid in political objectives that directly harm patients or otherwise face severe consequences. A report by the United Nations Human Rights Council cites evidence of collusion between military hospitals and various security agencies to carry out torture (Jones, 2020, p. 77). Based on the report’s findings, these security agencies obstructed the medical staff’s work and ordered doctors to keep patients alive so they could be interrogated and tortured.

Thus, healthcare workers are confronted with another type of ethical decision during the Syria war; on one hand, they must commit themselves to their professional duty not to harm by refusing to participate in torture, but in doing so, they expose themselves as well as their families and patients to the risk of various penalties if they refuse to comply with orders. Healthcare workers have been tortured for providing medical care to opponents of the Assad regime (Amnesty International, 2011), and if the authorities find that a doctor has treated a wounded person from the opposition, both the doctor and the injured patient face arrest and torture (The Lancet, 2011, p 1606). A complex trade-off manifests, one where, in carrying out the basic functions of their profession by providing treatment to someone in need, healthcare workers create risk and therefore potential harm for their patients and even themselves, but by withholding treatment for those injured, they violate the moral obligations of their profession (The Lancet, 2011).

The conflict in Syria presents new and unprecedented challenges that undermine the principles and practice of medical neutrality in armed conflict (Fouad et al., 2017). These challenges impose difficult choices and complicated ethical decision-making, which put the lives and consciences of those involved and their moral values at stake. The example below, an event recounted by one of the interviewees who participated in this study, further illustrates the challenges that healthcare workers face on the ground in Syria.

The healthcare worker (M29, DOC) is a twenty-nine-year-old dentist who worked in emergency, anesthesia, and orthopedic surgeries during the war period from 2011 until the end of 2016 in areas of Syria outside the regime's control. Because these areas were targeted and besieged by the regime's military, the situations he faced with his colleagues were extremely difficult and forced them to make disturbing and painful choices related to patient care. One of the most significant challenges he faced was the problem of treating each patient with only a few resources available, resulting in daily discussions with his colleagues over how to use and divide them and the best way to make those decisions. Moreover, he believed that applying ethical values in this context was difficult and sometimes not possible. He stated, for example, that honesty does not always work with patients, families, and the community, especially in the event of war, because the truth can negatively affect the psyche of the patient, family, and more broadly, the psyche of society. From his experience, he believed the use of deception in certain medical cases constituted compassionate care and could potentially mitigate additional burden and stress for a population dealing with an active war.

During this study, he recounted a poignant example while he was working in the emergency room and he and his colleagues obtained narcotic drugs after a long wait. They gave the drug to a few patients and later discovered that the material was contaminated, causing one patient to develop sepsis and later die. The healthcare worker (M29, DOC) described what happened:

*Once ... we ran out of anesthetics ... then we were able to get some after paying a lot of money ... we got a substance called propofol ... on that day, we were catering for a patient who had a previous amputation, and we wanted to do a debridement ... and an abscess treatment ... we used the propofol, but it caused the patient septic shock. The patient died of this septic shock. It was such a horrific issue because the patient was not in a serious condition. At first, we didn't understand the problem ... then someone told us that we had to stop using this propofol because it is hand packed and not original. He told us that anyone who takes this propofol will show symptoms of septic shock. We kept quiet and didn't tell anyone about it. We were the only center providing medical service to that place, and there was no other center. Imagine the loss of reliability that would follow if our medicines were said to be spoiled! This thing has a huge impact on us.*

The patient's death caused great distress for the healthcare workers because it placed them in two dilemmas, the first of which was concealment or disclosure of information. They decided to hide the incident from the other patients and their families who got the same drug and from their own families to protect their reputation and the reputation of their medical center. Thus, the ethical decision-making here was to abandon the principle of transparency in exchange for preserving the reputation, community trust, and thus the continuity of the services of the only medical center in this military-besieged area. The second ethical dilemma was the issue of accountability for the patient's death. Who bears the responsibility for the death of the patient and exposing other patients to danger due to administering contaminated drugs? Accountability is likely difficult to rectify due to the absence of drug monitoring and verification bodies and the lack of alternatives. It was clear the healthcare workers tried very hard to obtain the proper drugs, but in order to meet their patient's needs, they were eventually forced to buy from unqualified sellers and then secretly bring it to the health center because the regime prevented medicines from entering the besieged areas.

This real-life story is an example of what motivated me to conduct this study; more specifically, to determine the ethical standards by which healthcare workers in Syria depend, evaluate the experiences, challenges, dilemmas, and consequences they face, mainly when making ethical decisions in exceptional war conditions, and identify healthcare workers' psychological and emotional reactions that accompany decision-making, including their perspective on what is needed for training and support in this area. Furthermore, the story draws attention to the importance of addressing ethical frameworks and codes in the context of war to determine the moral values and principles they adopt and compare them to those adopted by healthcare workers in Syria during the war. For example, this will provide necessary information for organizations and volunteers wishing to work in conflict areas by illuminating differences in priorities, values, and ethical principles determined by a specific culture and context. While the available literature provides ethical models, tools, or frameworks to employ in the context of conflicts and war, some were

developed without testing them in real-life conditions, or they were tested on samples and societies different from the Syrian context and might not be suitable for it.

Finally, evidence that public healthcare ethics in Syria deteriorated due to restrictions on access to training in the field and the moral distress that healthcare workers face while making difficult ethical decisions (Center for Public Health and Human Rights et al., 2019) represents another significant challenge relevant to this project. The lack of adequate in-service training for ethical decision-making has led to a continued lack of ethical competence in Syrian healthcare workers, yet the moral distress experienced by workers due to the war adds another feature to this issue. The lack of training in addition to practitioner burnout can cause additional harm to patients by leading healthcare workers to place less importance on individual patient safety and utilize scarce resources unjustly. Moreover, resource shortages could cause inappropriate allocation and represent a challenge for applying any ethical framework. Therefore, it is crucial to identify and study each of these challenges that healthcare workers face during the war to provide a basis for giving recommendations or tools to help them in their difficult choices and ethical decision-making.

Hence, the main topic of interest in this study relates to analyzing the ethical problems in health and humanitarian care that are relevant in the Syrian war. Issues such as those described above relating specifically to the Syrian war, as well as more generally to other military conflicts, have not been thoroughly addressed in either the literature or through rigorous methodology. To address this problem, I prepared a framework for an in-depth analysis by identifying the ethical challenges that healthcare workers face generally during war such as in Syria. I examined the characteristics of the moral values used in care during disasters and wartime as well as the role of challenges and difficulties that wartime conditions impose when applying ethical frameworks and codes in Syrian healthcare. Because of issues identified in the pre-war era, and to support future efforts, I analyzed the way moral values and principles shape medical and humanitarian work between periods of peace and war in Syria and to determine its consequences.

Since medical and humanitarian organizations often follow different values and ethical principles, moreover, it was necessary to investigate if this moral diversity represented a positive or negative factor for healthcare and humanitarian workers. Lastly, one major problem identified was that moral distress and burnout among healthcare workers are common experiences during periods of disaster and war due to the safety risks for healthcare workers and the dilemmas they face while making the ethical decisions that accompany the influx of many injured people and those in need of urgent care. Thus, it was particularly relevant to this study's purpose to collect data about the attitudes and feelings of healthcare workers during their confrontation with the moral conflicts they have and continue to experience.

## 1.5 Research questions and aims

Disasters and wars often lead to numerous challenges and ethical dilemmas for healthcare workers that vary according to context and culture. Therefore, I formulated both open-ended and specific research questions, allowing the participants to talk about their experiences and the challenges they faced while capturing insights related to their specific context or cultural values. Using a bioethics lens, the primary aim of this study is to broaden the scope and output of bioethical analysis, on a local and global level, addressing the ethical challenges facing healthcare workers in wars and similar disasters. This study aims to answer the following questions:

- What are the common principles and values that underpin ethical frameworks, codes, and guidelines during disasters and wars? Is it different from the ones that Syrian healthcare workers rely on?
- Which type of ethical conflicts do healthcare workers encounter during the Syrian war? How do they feel when experiencing ethical conflicts? How do they cope with them?
- What challenges and difficulties do war conditions impose on applying ethical principles and values in medical and humanitarian work in Syria?
- Are there specific moral principles and values used by healthcare workers in Syria during the war? If so, why?

The research aims of this study are to:

- Provide an overview of the ethical frameworks, guidelines, and codes and their values that are used in healthcare during war and emergencies. This was achieved by identifying, reviewing, and cataloging some of the available ethical frameworks, guidelines, and codes used by healthcare workers and humanitarian organizations during war and disaster.
- Compare the ethical principles and values used in ethical frameworks, guidelines, and codes with those of Syrian healthcare workers. This was achieved by identifying and comparing the ethical principles and values that both the developers of ethical frameworks and Syrian healthcare workers included and considered important.
- Understand the nature of the ethical challenges and difficulties healthcare workers face in Syria during the war. This was achieved by collecting and analyzing healthcare workers' perspectives and experiences.
- Recognize the most important ethical principles and values used by healthcare workers in Syria during the war and the challenges associated with their implementation. This was achieved by describing healthcare workers' views on the nature and limits of ethical principles and values of healthcare.
- Help healthcare workers in Syria and in areas of armed conflict with a similar context in the ethical decision-making process and in identifying, examining,

and addressing ethical dilemmas. This was achieved by providing ground-work and in-depth analysis that can be built upon to help produce recommendations or guidelines that are appropriate to the real-life setting of Syria and similar military conflicts.

## 1.6 Significance of the study

This study aims to make a significant contribution to the field of disaster ethics by gathering accounts of practitioners' field experiences with ethical dilemmas in war disasters to help in developing guidelines that improve and promote ethical decision-making among healthcare workers in Syria and comparable disaster settings. Such recommendations or guidelines can ideally contribute also to disaster recovery plans regionally and globally. The results of this study will thus be of use to international organizations in Syria, its neighboring countries, and other countries engaged in humanitarian work, such as Germany, that play an integral role in alleviating the suffering of populations affected by conflict. For example, Germany has provided more than €4.4 billion in humanitarian aid since 2011, making it one of the leading donor countries for humanitarian assistance in Syria (German Federal Foreign Office, 2021).

Other international organizations, such as but not limited to, the United Nations, the World Health Organization (WHO), the International Red Cross, Médecins Sans Frontières, and Save the Children, possess extensive experience dealing with global humanitarian crises resulting from disasters such as wars, epidemics, famines. These organizations rely on methods that are well-established through their use over the years, but because of organizational differences regarding what ethical frameworks and codes are applied in disaster responses, further research is required to assess the applicability of these various approaches to the conditions of war in Syria. More importantly, many organizational disaster responses that are formed on diverse ethical frameworks are not supported by evidence from pragmatic studies. The purpose of "implementation research" is to "understand what, why and how interventions work in 'real-world' settings" (Peters et al., 2013).

Therefore, the experiences and suggestions of healthcare workers in Syria are of critical importance to provide a closer and more realistic understanding of ethical decision making which can help make recommendations to add to the overall body of knowledge. This study captures the experience of healthcare workers in Syria faced with ethical decisions during the war to determine what moral values and principles were applicable to the daily challenges and conflicts they faced and how they were applied. Their experience can also assist in identifying the values and ethical principles that are more important and appropriate for a Middle Eastern society in the event of military conflicts compared to peacetime.





## **2 Methods**

The figure below provides an overview of the study's methodology:

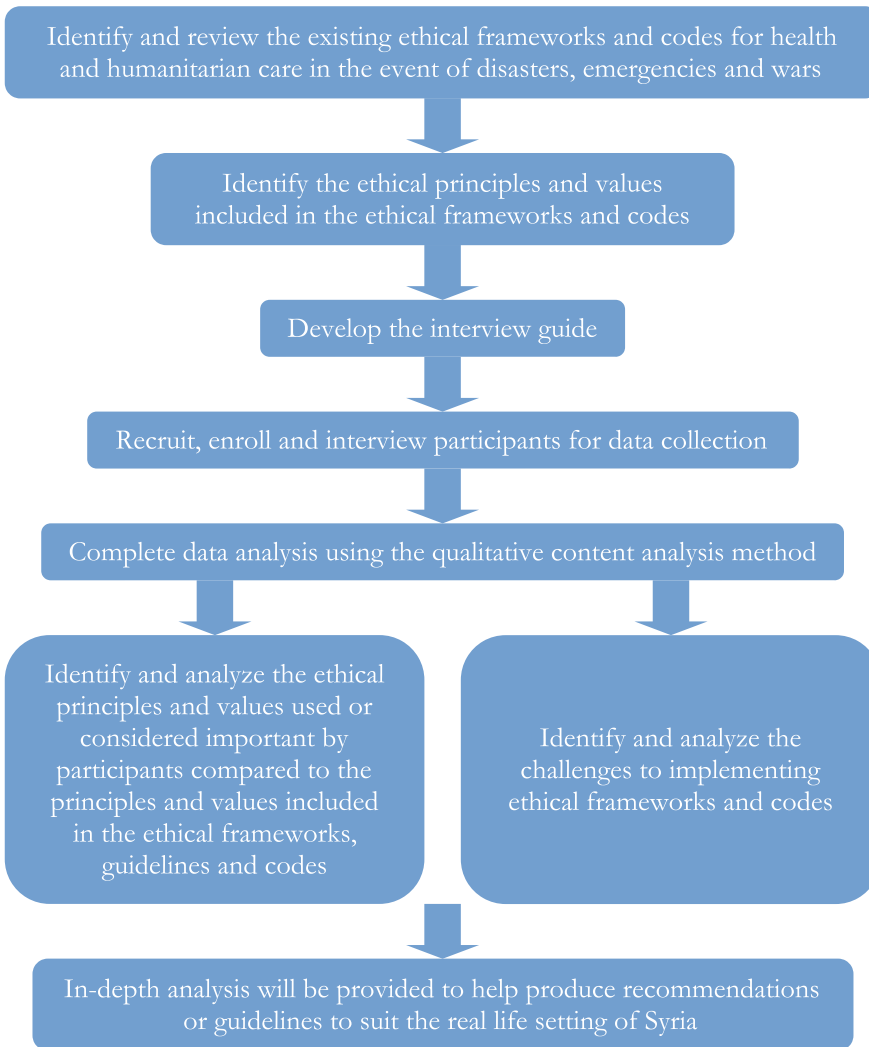


Figure 1. The research steps.

## 2.1 Data collection

Data collection included two parts: collecting data from secondary sources about ethical frameworks and codes, and collecting primary data through interviews with participants.

### **2.1.1 Identifying ethical frameworks and codes for humanitarian disasters**

To obtain basic information about the ethical principles and values used in humanitarian disasters, the ethical frameworks for health and humanitarian care developed and published by major non-governmental organizations in the humanitarian sector, such as the International Committee of the Red Cross, WMA General Assembly, American Health Care Association, were reviewed (see Chapter 3 “Ethical frameworks and codes for humanitarian disasters”). International and national ethical frameworks, guidelines, and codes were also included.

Sources pertaining to ethical frameworks, guidelines, and codes used during disasters, wars, and public emergencies were identified using Google’s standard search engine. Google offers a unique tool that streamlines the process of finding specific search terms and keywords on web pages, creating an opportunity to access more diverse ethical frameworks and codes and thus present a broader spectrum of the ethical principles and values used nationally and internationally in this field. In addition, most medical and humanitarian organizations and institutions publish their ethical frameworks and codes on their website rather than in academic journals, therefore the use of a web-based search engine such as Google was appropriate for this study.

The final terms used in the Google search strategy were as follows: (disaster ethics framework) and (armed conflict AND code of ethics) and (ethical guidance AND crisis) and (code of ethics AND public health emergencies) and (code of conduct AND humanitarian care). The first two pages of Google search results were screened for the ethical frameworks, guidelines, and codes used in health and humanitarian care during emergencies, disasters, and armed conflicts. Documents were filtered for English language without any restrictions to publication date.

#### **Inclusion/exclusion criteria**

The following documents were excluded:

- Unrelated documents such as news articles, conference publications, presentations, workshops, and documents from non-disaster fields.
- Documents not containing frameworks, standards of care, codes of conduct, or ethical guidelines, or do not mention moral principles and values.
- Documents containing ethical principles and values adopted entirely from other frameworks, standards of care, codes of conduct, or ethical guidelines. In such cases, only the original documents were included.

### **2.1.2 Qualitative empirical research: interviews**

Interviews are a qualitative research method used to collect and analyze expert perspectives (Helfferich 2005; Schreier 2012). Selecting interviews as the method for

data collection provided the necessary space and freedom for each participant to talk about their experiences. The interview method, by allowing for reflexivity, can be flexible with question and answer dialogue, clarification of vague ideas, or deeper discussion when the participant presents unique ideas, which helps to understand the phenomenon in appropriate detail. In addition, this method protects confidential information and provides privacy of each participant. Privacy and confidentiality were especially vital to this study due to the sensitivity of the topics discussed in the interview and the fact that many participants worked in dangerous conditions and required confidentiality for security reasons.

To understand the nature of the ethical challenges and difficulties healthcare workers face in Syria during the war, we developed a qualitative empirical research design based on personal interviews. The Ethics Review Board of Göttingen University Medical Centre, Germany, reviewed the study and confirmed that the relevant ethical and legal regulations were observed. They expressed no reservations about the realisation of the project.

To connect with a potential study population, contact was made with key stakeholders in not only Syria but also Germany, Turkey, Lebanon, and Jordan as these countries host many Syrian refugees and allow easy access to the target population. Healthcare workers from prominent stakeholders and non-governmental organizations (NGOs) working on the ground in the Syrian war (e.g., Syrian Expatriate Medical Association, The Syrian American Medical Society, Red Cross, Doctors without Borders, UNICEF, WHO) were contacted first. I also contacted healthcare workers in private, government, or field hospitals. Next, healthcare workers who previously worked in Syria during the war were contacted, with a preference for workers who directly provided health and humanitarian services to those affected by the war or worked in areas of armed conflict (Leavy, 2017, p. 148). Once identified, the healthcare workers were contacted via email, WhatsApp, and Facebook with study information. Some participants were also contacted through direct communication or through a snowball system, where participants suggested others who were potentially interested in participating in the study.

After obtaining informed consent from those who wished to participate in the study, an interview was scheduled for each participant, who was sent an electronic invitation letter to join the interview. After receiving their approval, semi-structured interviews were conducted by phone using the platforms WhatsApp and Skype (Burke & Miller, 2001; Cachia & Millward, 2011). The interviews lasted between 30 and 90 minutes.

The goals of the interview were to:

- identify ethical challenges, conflicts, and dilemmas faced by the participants during the war,
- recognize their experiences and feelings while dealing with such challenges,
- explore the moral values and principles that are used or considered necessary by the participants in a real-life context, and

- highlight the difficulties of applying ethical principles and values in such settings. Interviews were audiotaped by placing the phone call on speakerphone and using a tape-recorder with a portable taping machine to record the conversation. Interviews were conducted in colloquial Arabic language and, whenever possible, in English. Transcriptions were made for each interview.

### 2.1.3 Data confidentiality

The participants' personal data will always be treated confidentially within this study and will never be revealed to third parties. The personal data will be stored only in a pseudonymized (encrypted) form. Audio files and transcripts are stored on password-protected servers and on the Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen (GWDG) Cloud. GWDG is a service organization that works alongside the University of Göttingen and the Max Planck Society as a data and IT service center. The data will stay there for ten years according to regulations of the Deutsche Forschungsgemeinschaft (the German Research Foundation). If the results of this study are published, data will be anonymized, and nobody will be able to identify the interviewees.

## 2.2 Interview guide

The interview guide, developed in both Arabic and English, was based on the literature review evaluating ethical frameworks and codes that identified knowledge gaps. The purpose of the interview guide was to explore the experiences of healthcare workers in Syria dealing with or who had previously dealt with ethical challenges during the war. The review of ethical frameworks and codes determined what types of moral values were frequently cited, why and how they were chosen by developers, and the challenges of applying them; therefore, similar questions about the ethical frameworks that healthcare workers followed in Syria during the war and the challenges that accompanied their implementation were included in the interview guide.

The interview guide was pre-tested and adjusted through a test interview with a healthcare worker who had previously worked in Syria during the war. The test interviewee evaluated the interview questions based on adequacy, coverage of the study's research questions, and relevance to the time frame and constraints of a phone interview. Open-ended questions were primarily used in the interview guide because, in general, they provide participants more freedom to express their ideas about a specific issue and allow them to extrapolate further about their experiences and feelings. This style fits the approach of this study, and ultimately, the guide provided a controlled framework from which to explore the moral challenges and difficulties in applying traditional medical ethical principles within the reality of the Syrian context and determine how healthcare workers navigated these challenges.

## Interview guide script

The interview guide: First, let me explain what we will do: I will ask you some questions. Feel free to share with me what you want. If you agree, I will record your answers. Any personal data will always be treated confidentially and will not be disclosed to third parties. I will transcribe the interview for the scientific evaluation. The data will be stored on a secure server and only in a pseudonymized (encrypted) form. If the results of this study were published, no one would be able to identify the interviewees.

Do you agree to have your answers recorded?

- We start with some relevant personal information: How old are you? What is your profession? How long have you worked in Syria during the war and in similar situations?
- Have you encountered particularly troublesome situations? Please describe. What was the most annoying aspect?
- War as a man-made disaster causes many difficulties and conflicts for healthcare workers with ethical aspects (examples: triage system; who should be treated first, scarce resources; personal safety; when to give up duty and leave your workplace, etc.) Did you encounter any of these during your work? How did you deal with it? What did you rely on when you made your decisions? What values were at stake?
- Codes of ethics have been a longstanding component guiding the professional behavior of healthcare workers. In addition, health and relief organizations usually use these ethical codes and standards of care in disaster relief to determine the best course of action. One example is the Red Cross principles and code of conduct (it contains seven principles: humanity, impartiality, neutrality, independence, etc.). Do you know of any ethical standards and codes used in healthcare (by NGOs, health institutions, and healthcare workers) during the war in Syria? Are any of the Islamic ethics involved? What do you use personally? How feasible and applicable are they? If not applicable, why not?
- What ethical principles, values, and norms do you think are important? Can you prioritize them in terms of importance? (If the participants didn't know any of them, I can then list some of the most commonly used values in such situations and then ask them if they are relevant and if they can prioritize them).
- Does applying ethical values and standards in medical and humanitarian work differ between periods of peace and war in Syria?
- How do you define your responsibility, obligations, rights, and the responsibility of health institutions and NGOs during the disaster?

- Have you had any training in medical and disaster ethics? What materials were involved?
- Is it essential to develop an ethical framework/tool/guideline for the Syrian context?
- Is there anything else you would like to share with me on this topic?

## 2.3 Sample size

The sample size was determined according to the saturation principle and pragmatic considerations (Schwandt, 2007). As the data examination progressed, the sample size was re-evaluated to determine when adequate saturation was achieved. Sufficient saturation is achieved when additional data collection does not contribute significantly to enhancing understanding of the phenomenon being studied (Carnvale, 2002, p. 126). In this study, saturation was achieved by understanding and identifying the ethical challenges and values used in healthcare and fulfilling the remaining points in the interview guide. The research objectives of the study focused on an in-depth and contextualized understanding of specific phenomena, and these objectives are well suited to small sample sizes (Given, 2008, p. 798).

## 2.4 Data analysis

Data analysis was completed for the ethical framework, code, and guideline literature review and for the interview transcripts.

### 2.4.1 Analyzing ethical frameworks and codes for humanitarian disasters

The process of data analysis for the ethical frameworks and codes began by defining, reviewing, and summarizing each of their foundational principles and values in order to understand their structures. During the review stage, specific ethical values employed by these frameworks, why and how they were chosen, and the challenges of applying them were identified. Next, the extracted ethical principles and values using the Qualitative Content Analysis method were systematically analyzed and synthesized. This method is well suited to data that are already highly organized and contextualized (Finfgeld-Connett, 2014, p. 341). The Arizona Model Code of Public Health Emergency Ethics (Hodge et al., 2012) was also used to systematically analyze the ethical values and principles included in ethical frameworks, codes, and guidelines.

After reading the ethical frameworks, codes, and guidelines and repeatedly taking notes to obtain a general sense of the material, the data were open-coded line by line, looking for ethical principles and values to systematically analyze them with the preselected principles and values from the Arizona code. The aim was to carefully examine and synthesize the moral values and principles of the frameworks and

codes to find the best fit between them. Only ethical principles and values that were explicitly adopted in the ethical frameworks were included. Any duplication of moral values and principles within the same ethical framework was excluded. Ethical principles and values found to be unique and therefore unable to be systematically aligned with the principles and values of the Arizona code were described separately. The ethical frameworks' segments were also coded under principles and values that suited their meaning and content. The final step of this process included discussions with the study supervisors to refine the codes and categories.

#### **2.4.2 Analyzing the interviews**

Framing and understanding the participants' experiences from the interview data collected was imperative to this study's aims of generating evidence that can contribute to taking action that changes the landscape for healthcare workers in Syria. The qualitative research methodology was selected as the tool for analyzing the interview data because it provides a flexible and holistic approach for qualitative data collection and analysis, especially when obtaining rich data from multiple sources, allowing for an improved understanding of participants' intertwining ideas, perspectives, and attitudes (Nassaji, 2015, p. 129). According to Pathak et al. (2013), the qualitative research methodology is used generally to understand people's beliefs, experiences, attitudes, behavior, and interactions, but it can also be used to better understand the complex reality of a given situation (Mack et al., 2005, p. 2), thereby focusing the study of real-life situations and avoiding the construction of assumptions far removed from the reality and context of human experiences. This provided the appropriate grounds for examining ethical frameworks and codes through real-life situations.

In addition, the qualitative research methodology provides researchers with a solid ground for developing theoretical concepts in studies and framing research participants' experiences. It utilizes an inductive approach to identify recurring themes, models, or ideas and then provides a description and interpretation of these categories (Nassaji, 2015, p. 130) without the need for prior hypotheses (Thomas, 2006, p. 238). Moreover, the qualitative research methodology assesses various empirical materials—such as a case study, personal experience, life story, and interview—(Denzin & Lincoln, 2018, p. 43) which are then used deliberately within their natural contexts to understand or explain phenomena and the meanings that people bring to them (Denzin & Lincoln, 2018, p. 43). The empirical materials also help clarify and explore different perspectives and problematic events in the lives of the individuals involved in the research (Denzin & Lincoln, 2018). Accordingly, these empirical materials, including personal experiences, provide a better qualitative description and a deeper understanding of the phenomenon. Because of this, the qualitative research methodology and the use of empirical materials aligned well with the data analysis goals related to the interview data as it was necessary for the aims



of this study to discover the participants' experiences and understand how meanings are formed within them.

What distinguishes the qualitative research methodology from other methods that could be used to analyze the interview data is that it presents the possibility of extending the results to apply beyond the study with people who have characteristics similar to the study participants (Mack et al., 2005, p. 2). Thus, the study can be a useful example of other armed conflicts in different geographical areas. Nevertheless, it ought to be noted that there are limitations accompanying the possibility of extending the results to other contexts. Using empirical research as a model, for example, can fail if an automated strategy, such as an algorithm or similar procedures, is applied (Flick, 2014, pp. 540-553); however, this study avoided utilizing any type of automated strategy. Other challenges to extending results to different contexts could include insufficient sample use, unrepresentative selection, researcher bias, or unifying theoretical assumptions (Flick, 2014, pp. 540-553). Therefore, before attempting to apply the results of interviews to areas, communities, and individuals other than the study sample, further research is needed.

The empirical materials from the interviews were analyzed, organized, and interpreted based on qualitative content analysis (Schreier, 2012). Qualitative content analysis is a reliable, transparent, easy-to-understand method that is highly recommended, especially in dissertations (Kaiser & Presmeg, 2019, p. 181). Content analysis classifies qualitative material into groups of similar units, or conceptual categories, to identify consistent patterns and relationships between variables or themes (Given, 2008, p. 120). An important feature of qualitative content analysis is that it allows a research to 'find' a label to use for grouping several elements under one concept, helping to limit the number of codes created during analysis (Flick, 2014, p. 11). Moreover, qualitative content analysis is well-suited for analyzing materials that express life experiences and stories by dividing the text into relatively small content units and subjecting them to descriptive treatment (Vaismoradi et al., 2013, p. 400). Given this analytical methodology, qualitative content analysis is suitable for this study because it allows for an in-depth analysis of research interviews containing healthcare workers' experiences and perspectives.

Qualitative content analysis also allows for the formation of theoretical units that include categories and codes. Through the coding process, the ethical principles and values considered important by healthcare workers in Syria during the war were organized, analyzed, and categorized based on healthcare workers' views on both the nature and limits of the ethical principles and also the challenges of applying them during the war. The descriptive treatment further identified and analyzed the ethical challenges and dilemmas these workers experienced.

Next, the qualitative content analysis was useful for the study because it helped answer the "what" and "why" questions during the analysis of interviewees' perceptions (Given, 2008, p. 120). Answers to questions such as, "What are people's concerns about an event?" and "Why do people use or not use a service or procedure?" are available through qualitative content analysis (Vaismoradi et al., 2013, p. 400).

These questions correspond to similar inquiries in this study, such as, “What kind of ethical conflicts did healthcare workers in Syria face during the “incident” of the war?” and “What are the challenges and difficulties that this incident poses to applying ethical frameworks and codes in medical and humanitarian work there?” In this respect, the questions of “what” and “why” are very important for exploring the experience and views of the participants in a real-life context. Moreover, in this study, they provided a meaningful response to the research questions.

Finally, through the process of qualitative content analysis, impactful, real-life incidents and stories from the material were efficiently identified. This was achieved in a systematic manner by coding certain segments that included interesting and unique events within the categories that grouped extreme events healthcare workers experienced during the war. Highlighting poignant stories encouraged thoughtful analysis of the content and stimulated more discussion about the material.

The qualitative content analysis consisted of five phases that were related to research questions in the interview guide: reading the data intensively, building the coding frame, coding the data, analyzing the coded data, and presenting the results (Kuckartz, 2019, p. 186). Data was also analyzed and synthesized according to the following five steps of qualitative content analysis (Kuckartz, 2019, pp. 187-188) (See Chapter 4 Results of the qualitative-empirical interview study):

- 1) Preparing the data and initiating text work.
- 2) Forming main categories corresponding to the questions asked in the interview.
- 3) Coding data with the main categories.
- 4) Compiling text passages of the main categories and forming subcategories inductively on the material and assigning text passages to subcategories.
- 5) Category-based analyses and presenting results.

## 2.5 Quality criteria

Producing inter-subjective comprehensibility of the research process was used as the primary criteria for assessing this study’s scholarly value, quality, and validity (Flick et al., pp. 186-187). Validating the comprehensibility of the study was completed through documentation of the research process (Flick et al., 2004, p. 187), which allows readers to systematically follow the study and evaluate the research process and its results (Flick et al., 2004, p. 187). Two advantages characterize documentation of the research process. The first is that this process considers the unique dynamic of qualitative studies, which is reflected in the critical link between the primary research issue, the research questions, and the methodology used. The second advantage is that the documentation of the research process provides more freedom for the reader to evaluate the research and its steps related to the study’s criteria without the need to adhere to predetermined standards (Flick et al., 2004, p. 187). According to Flick et al. (2004), several things must be documented:

- The researcher's prior understanding of the issue. This is achieved through a preliminary analysis of the issue, specifying expectations about it or the goals to be pursued, and justifying a basis for the research methods to be used and the data to be collected.
- The precise specification of the sources from which information was collected, the collection method, the collection context, and its developed procedures;
- The transcription rules;
- The methods of analysis;
- The decisions and problems, including sampling considerations, method choice, and the presence of any contradictions; and
- The criteria that the study must meet.

The previous points were adhered to in most of the study stages.

## 2.6 Trustworthiness and rigor of the study

To establish the trustworthiness and rigor of the study, I used Lincoln and Guba's four criteria of credibility, dependability, confirmability, and transferability (Lincoln & Guba, 1986, pp. 73-84).

Credibility was established for the data and the overall study design using multiple methods. For the raw data, participants confirmed that the quotations from transcripts of their interviews were accurate and valid. Excerpts and quotations from selected participants' interview data used in this dissertation and for other publication purposes were shared with those participants, and their permission for sharing was obtained. For the study design and implementation, the study's supervisors provided peer-review services, continually reviewed the study data, and facilitated my participation in regular debriefing sessions with the Department of Medical Ethics and History of Medicine at the University of Göttingen. In addition, a diverse participant population (in terms of demographic characteristics, e.g. gender, age, work experience, and work location) was recruited, and the interview guide went through a pilot phase before being finalized into the study methodology. To confirm the accuracy of the translated quotations, a language expert (PhD) verified the interview quotations included in this dissertation by proofreading and revising the interview quotations translated from Arabic into English.

Dependability describes the reproducibility of research results within the same cohort of participants and under the same conditions (Forero et al., 2018, p. 3). To improve the results' dependability, a detailed description of the study methods was outlined and an audit trail during the research process was implemented. An audit trail is a strategy whereby a researcher maintains an audit of all the major intellectual, methodological, and analytical stages of the study (Carcary, 2020, p. 166).

Moreover, to preserve an accurate representation of the participants' experiences, the data collection process was outlined in detail and included specific examples of the coding stage using tables and flowcharts. The description of the data collection steps demonstrated how the participants' experiences were highlighted while trying not to miss any important ones. The process by which themes or categories were formed from individual codes was also described. In addition, the study includes a large number of quotations, incidents and real-life stories drawn from the research interviews.

Finally, confirmability was integrated by recording each study step in detail, and an external researcher reviewed and revised the dissertation for English language, grammar, and formatting. To improve transferability, purposeful sampling was chosen as the method of participant selection, and frameworks, codes, and guidelines were randomly selected. Moreover, the interviews and data collected were completed until saturation was reached. Previous steps have been recorded and made available to enable the reader to determine whether the results are transferable to other contexts.

## 2.7 Strengths and limitations

The qualitative content analysis method has several strengths, such as offering greater flexibility in data analysis and the ability to process large amounts of data (Julien, 2008, p. 121). Specifically, by utilizing a methodology with well-established sequencing models, qualitative content analysis allows for transparent data analysis that is understandable and easily links back to the study's research questions (Mayring, 2004, p. 269). For this study, it provided the ability to analyze and understand data based directly on the research questions. Other advantages of qualitative content analysis include its ability to investigate the meanings embedded within texts and analyze textual content and the context in which it is created (Leavy, 2017, p. 146), which was also helpful in analyzing the content of semi-structured interviews and understanding the specific context in which the research participants live, and that it focuses on qualitative analysis without undertaking over-hasty quantification (Mayring, 2004, p. 266).

Despite these strengths, qualitative content analysis does present a few limitations. First, qualitative content analysis is generally less appropriate for research involving very open-ended research questions or of a remarkably exploratory nature (Mayring, 2004, p. 269). This exploratory study could therefore be hindered by an inductive formation of categories or linking them to a conclusive theoretical justification. This limitation, however, can be overcome by collecting high-quality data resulting in high-quality data analysis (Vaismoradi et al., 2013, p. 402). To accomplish this, a complex set of data was collected to be suitable for the findings' complexity. In addition, this limitation does not impair the study because the questions posed herein, despite containing open-ended questions, bear a specific aspect and

direction. For example, it is possible to predict the nature of the ethical challenges and dilemmas associated with health and humanitarian work during the war.

Secondly, another limitation could result from using the frequency of codes as the primary way to find significant meanings in a text (Vaismoradi et al., 2013, p. 401). This limitation can be avoided by focusing on the research questions and objectives during data analysis, providing parallel importance to the relevant issues, and reducing dependence on frequencies as much as possible. Furthermore, the interview data reveal the implementation of unique ethical principles that some participants preferred over other common principles. Therefore, a more in-depth qualitative approach was needed in order to discuss and analyze these principles and the way the participants dealt with these challenges and dilemmas. The issue of quantity and frequency was less important in this case, thus allowing for the qualitative aspect to provide greater benefit in understanding the experiences of healthcare workers and the unique principles they used. In the future, additional studies should be conducted that further develop the frequency aspect of this type of research.

Finally, healthcare workers were contacted in areas under the control of the Syrian regime and regions outside its control. However, most of those contacted who work in regime-controlled areas declined to participate in the study, without either giving a reason or attributing it to security issues. That was one limitation of the research. The number of female participants was also limited. About ten female healthcare workers were contacted, but only two agreed to participate. Those who refused to participate did not provide a specific reason other than issues related to sensitive security and societal norms. In addition, participants who suggested other potential participants often suggest male individuals, creating another limitation of this study.



### **3 Ethical frameworks and codes for humanitarian disasters**

This chapter presents the results of the ethical frameworks and codes review. To obtain this data, a set of ethical frameworks, codes, and guidelines were reviewed, summarized, and analyzed related to wars or disasters that are applicable in the event of armed conflicts. After adopting specific criteria for inclusion and exclusion, these frameworks and codes were chosen by searching on Google's search engine. The search was conducted in October 2018, resulting in 82 documents identified for inclusion. An in-depth review of the abstracts was completed followed by a full review of the literature and then a basic identification of documents on the topic. Ten duplications were identified and therefore excluded, 60 documents were excluded per exclusion criteria, and 12 ethical frameworks and codes were selected for review (see Figure 2). The frameworks and codes included in the review were categorized into national and international documents.

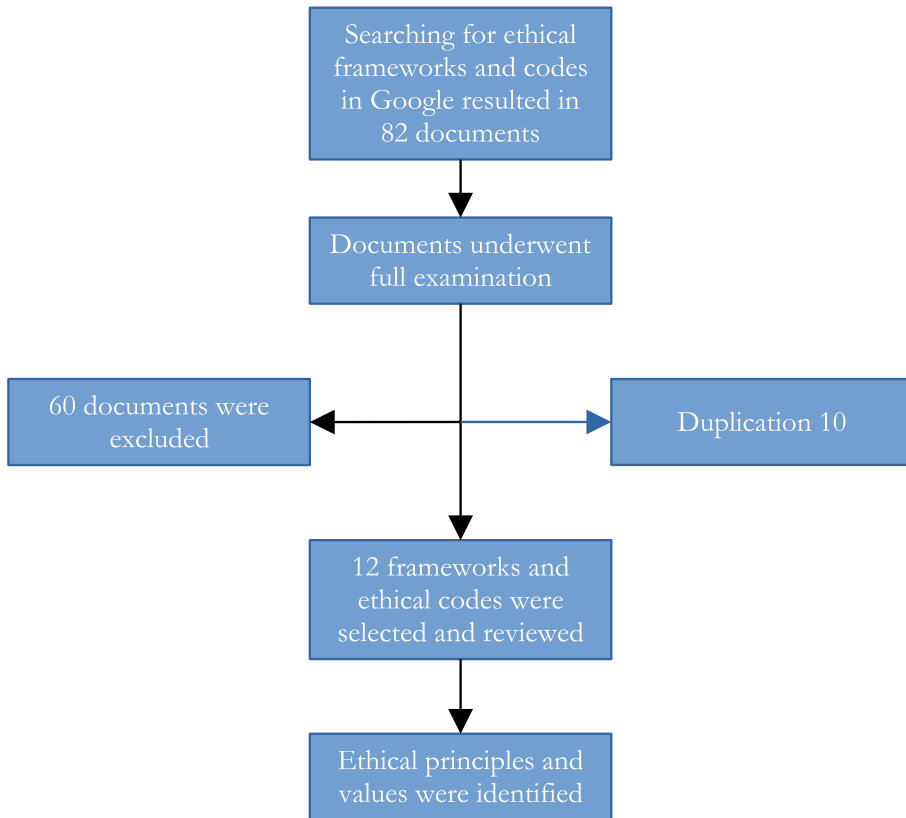


Figure 2. The searching process for disaster ethical frameworks and codes.

Table 1 lists the ethical frameworks and codes included in this review:

<b>Table 1. The ethical frameworks and codes</b>	
<b>International frameworks and codes</b>	<b>Publication Date</b>
1. The Fundamental Principles of the International Red Cross and Red Crescent Movement	2014
2. Code of Conduct for the International Red Cross and Red Crescent Movement and Non- Governmental Organizations (NGOs) in disaster relief	1994
3. Ethical Principles of Health Care in Times of Armed Conflict and Other Emergencies	2015
4. Challenging Operations: An Ethical Framework to Assist Humanitarian Aid Workers in their Decision-making Processes	2014



5. PHAP Code of Ethics and Professional Conduct	2017
6. WMA Regulations in Times of Armed Conflict and Other Situations of Violence	2017
<b>National frameworks and codes</b>	
7. Ethical Guidance for Public Health Emergency Preparedness and Response: Highlighting Ethics and Values in a Vital Public Health Service	2008
8. Ethical Guidelines for the Development of Emergency Plans	2013
9. Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report	2009
10. Guidance for the Ethical Allocation of Scarce Resources during a Community-Wide Public Health Emergency as Declared by the Governor of Tennessee	2016
11. Code of Ethics for Emergency Physicians	2017
12. Arizona Model Code of Public Health Emergency Ethics	2012

### 3.1 Review of ethical frameworks and codes

The ethical frameworks and codes were first reviewed and summarized to understand their nature as well as the context and challenges of their application. This review helped to better understand the reasons why certain principles and values were adopted in each framework; moreover, it identified gaps in content and unclear issues, all of which can aid policymakers in avoiding similar pitfalls during the creation of future ethical frameworks and codes.

#### 3.1.1 International frameworks and codes

##### 3.1.1.1 *The Fundamental Principles of the International Red Cross and Red Crescent Movement (ICRC, 2014)*

The principles of the ICRC are as follows:

- 1) Humanity
- 2) Impartiality
- 3) Neutrality
- 4) Independence
- 5) Voluntary service
- 6) Unity
- 7) Universality

The seven principles were adopted at the 20th International Conference of the Red Cross Movement in Vienna, Austria in 1965 (Bernard, 2015, p. 18) and bonded the Red Cross and Red Crescent National Societies, the International Committee of the

Red Cross (ICRC), and the International Federation of Red Cross and Red Crescent Societies (IFRC) under a uniform vision. Since then, the principles have been widely applied in conflicts, civil wars, and natural disaster settings. The primary purpose of these fundamental principles, however, is to guide the work and decisions of Red Cross and Red Crescent workers in any given situation (ICRC, 2014) by promoting helping those most in need first, regardless of their political affiliation, race, or religion, and gaining people's trust (ICRC, 2015, p. 5). According to the ICRC, the principles express the Red Cross and Red Crescent Movement's core values and practices (2015, p. 5). To others outside the organizations, the principles inspire and represent an ideal to strive for and achieve in times of peace, armed conflict, or natural disaster.

In 1979, Jean Pictet wrote an intensive commentary on the fundamental principles of the Red Cross, which are still being used and acknowledged by the ICRC and IFRC (ICRC, 2015, p. 7). Pictet proposed that the seven principles could be arranged in a pyramid to represent the order of each principle's influence (ICRC, 2015, p. 7). The pyramid is divided horizontally into three parts. At the top of the pyramid are humanity and impartiality, serving as the overarching principles that influence the others. Neutrality and independence are placed in the middle section, and voluntary service, unity, and universality are at the bottom.

While the pyramid helps to conceptually organize the principle, in application, the ICRC's fundamental principles continue to face many challenges (ICRC, 2015, pp. 16-17). As stated in a speech by ICRC President Peter Maurer during a conference at the Graduate Institute of International and Development Studies in Geneva in 2014, "the concepts as well as the practices of principled humanitarian action are increasingly being challenged in current conflicts" (Maurer, 2016, p. 450). One of the main challenges is staying independent and neutral in the middle of extremely opposed and conflicted parties. Addressing this difficulty, the ICRC stated that:

In this increasingly polarized environment, where people are seen as either friend or foe, the expectation that everyone will take sides grows. This makes it all the more difficult for organizations working on the basis of the principles of independence and neutrality. (2015, p. 17)

Furthermore, there is the potential for humanitarian causes to be misused to justify wars, which is another critical challenge when applying humanitarian principles. Historical examples include states using humanitarian efforts as an integral part of the military and political strategies, and armed groups using relief to gain support among the local population. The ICRC observed that misuse in this way is likely to put all humanitarian actions in question:

The problem lies in using humanitarian action more broadly to win hearts and minds, which can lead those engaged in the fighting and people in adversely affected communities to associate all humanitarians with a political or military agenda. When humanitarian action becomes part of a strategy to

defeat an enemy, the risks for aid agencies in the field rise significantly. (2015, p. 17)

3.1.1.2 *Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs) in disaster relief (IFRC & ICRC, 1994)*

The International Federation of Red Cross and Red Crescent Societies and the ICRC prepared the code jointly and released it in 1994 (IFRC & ICRC, 1994). As of February 2022, 918 organizations have signed the Code (IFRC, 2022). The purpose of the Code is to establish ethical standards to maintain high levels of behavior, independence, and effectiveness of organizations involved in humanitarian work. The document contains the Code of Conduct and three annexes later drafted by the founders to define the preferred working environment that should be provided by host governments, donor governments, and intergovernmental organizations to facilitate the effective delivery of humanitarian aid. The code's provisions are voluntary, meaning, it is not binding on the organizations that sign it but rather imposed based on the organizations' will and commitment to implement the standards included in the code.

The Code of Conduct contains ten core principles covering a broad spectrum of ethical values, with humanity and humanitarian imperative chosen to be at the forefront of the order. These are followed by non-discrimination as the code specifies that aid must be fairly distributed regardless of the recipients' race, creed, or nationality. Impartiality is also included next among the principles the code adopted, emphasizing that the aid provided should not contribute to promoting a specific political or religious viewpoint. In addition, an emphasis was placed on the need to respect the culture and the dignity of aid recipients. The founders and adopters of the code also included accountability to hold themselves accountable to recipients of aid and donors. While they do not list any specific ethical principles, the three annexes included in the code document are important in that they describe the appropriate environment for humanitarian work under international law and facilitate the arrival of unconditional aid, coordination, and exchange of information. This is essential because humanitarian work must be accompanied by respect for the principles of independence, humanity, and impartiality. Finally, the IFRC and ICRC also claim that the code can be used during armed conflicts but only under international humanitarian law (1994).

Conformity to the code, however, requires a valid interpretation and application of the code. To better understand how organizations apply the code in humanitarian work, Hilhorst (2005) sent questionnaires to a total of 115 representatives from organizations who signed the code. The purpose of the research was to explore opinions on the code and its usability. Results revealed that, while the Code of Conduct is considered essential and broadly supported for its principles, the utilization of the code can be vastly improved. One major critique of the code was that because

the code is not incorporated into a regulatory framework, it can lead to contradictions and a lack of accountability:

It uses cautious language, such as ‘we shall endeavour to’, instead of ‘we will’, and the different articles can impose contradictory demands. The cautious language makes the Code comprehensive. But it also makes it less useful for NGOs seeking guidance for their actions, and for purposes of accountability. (2015, p. 46)

Other findings suggested the need for improvement and elaboration of issues related to neutrality, independence, and respect for local culture.

Furthermore, a working group funded by the European Cooperation in Science and Technology conducted a study in 2014 to assess the code’s relevance and suggest possible changes (Borovecki et al., 2015). The study indicated that the following issues were covered in the code:

- Respect for human dignity
- Accountability
- Independence
- Effectiveness
- Equity and social justice
- Community participation
- Impartiality
- Identity protection

However, the study also demonstrated that the definitions for some of the code’s most critical terms were inadequate and needed to be updated. In addition, some ethical issues (e.g., gender and disadvantaged groups) were missing and should be addressed in a revised version (Borovecki et al., 2015). The study also suggested that more guidance on dealing with unethical practices is needed.

### *3.1.1.3 Ethical Principles of Health Care in Times of Armed Conflict and Other Emergencies, (International Committee of the Red Cross et al., 2015)*

This document was developed between 2012 and 2014 during a project coordinated by the ICRC named “Health Care in Danger” (Tamanini, 2015). After further consultation, the document was approved by the International Committee of the Red Cross (ICRC), the World Medical Association (WMA), the International Committee of Military Medicine (ICMM), the International Council of Nurses (ICN), and the International Pharmaceutical Federation (FIP) (International Committee of the Red Cross et al., 2015). The ethical principles were adopted by the 65th General Assembly of the WMA, Durban (South Africa), in October 2014, and the partners officially launched the document in 2015. According to the International Committee of

the Red Cross et al. (2015), this document did not prejudice the policy documents adopted by these organizations.

The document includes 14 ethical principles aimed at promoting the awareness and support of healthcare workers working in armed conflicts and other emergencies often faced with ethical dilemmas and violations. Providing impartial and efficient health care in such situations is also a stated aim of the principles. Moreover, special attention was paid to international humanitarian law and human rights standards. When the principles were first introduced, the president of ICRC gave a speech to acknowledge the importance of organizational cooperation for their achievement (Mauer, 2015), citing healthcare workers in Yemen, Mali, and Syria who are often exposed to threats, violence, and other challenges caused by armed conflict and therefore face real ethical dilemmas without much guidance. According to Maurer, “existing norms are no longer sufficient and the consensus that the medical mission has to be respected in all circumstances has slipped into the background while abuses have increased from sporadic to systematic” (2015). Furthermore, Maurer (2015) admits that even though the principles are a combination of professional experience and normative frameworks, practical solutions have yet to come from those confronted with real-life challenges utilizing these principles.

The 14 principles were divided into four parts: general principles, relations with patients, protection of health-care personnel, and a final individual principle. The general principles affirm that ethical principles for health care used in times of armed conflict and other emergencies are the same as those for times of peace. The principles also observe the need for healthcare workers to adhere to their conscience, international and national law, and the fair use of resources. In addition, health care must be provided with humanity, respect for dignity, and non-discrimination, and that privilege and facilities granted to healthcare workers should be used only for healthcare purposes. In a final point, the principles affirmed healthcare workers’ duty to not harm by rejecting and not participating in acts of torture or inhuman treatment.

As for relations with patients, the principles emphasize the necessity of providing for the patient’s best interest, whenever possible and with their explicit consent. The primary duty of a healthcare worker should focus on serving the patient without discrimination (except in circumstances of scarce resources). Additionally, the privacy and confidentiality of patients must be respected and not breached except with their consent or in the event of a real threat to patients or others.

Regarding the protection of healthcare workers, the principles emphasize respecting their safety and wellbeing, not impeding their movement without justification, and never punishing them for carrying out their duties. In addition, a safe working environment must be provided for them, from the health care facilities they work in to their transportation. Protections for healthcare workers must also follow applicable international law.

The final individual principle urges the commitment of the organizations signing this document to promote it, disseminate it among their members, and follow it wherever possible.

3.1.1.4 *Challenging Operations: An Ethical Framework to Assist Humanitarian Aid Workers in their Decision-making Processes (Clarinval & Biller-Andorno, 2014).*

This framework, published in 2014, was developed by Clarinval and Biller-Andorno based on three real-life cases they experienced during their professional work that illustrate common ethical conflicts humanitarian aid workers encounter in humanitarian action. Each case was selected from a unique perspective. The first case relates to macro-level (i.e., headquarters) dilemmas and discusses the question of fairness within a tight budget allocated by the headquarters of a humanitarian organization. The second case deals with the meso-level (i.e., land or region) and debates the issue of using aid workers as means to an end instead of being ends in themselves. The third case looks at the micro-level (i.e., individual patient-provider relationship) and presents an ethical dilemma involving the cost of doing good and the limits of beneficence.

The three cases illuminate a gap in the literature regarding how to identify possible independent ethical issues on the one hand and demonstrate the need for a structured, easy-to-reference framework for assisting aid workers in decision-making on the other (Clarinval & Biller-Andorno, 2014). The authors responded to this issue by developing an ethical framework based on public health and clinical ethics resources, thereby drawing on the similarity of dilemmas occurring in humanitarian, public health, and clinical contexts. Several field aid workers' experiences were utilized to design the ethical framework, which was later examined and viewed as valuable by humanitarian aid workers and donor agencies (Clarinval & Biller-Andorno, 2014).

The framework is designed to be adapted into specific contexts and has three main aims. The first purpose is to raise the awareness of humanitarian aid workers toward a common set of ethical values on which humanitarian work is based. Such values, to which humanitarian actors, organizations, donors, or agencies explicitly or implicitly refer, may differ and conflict with other value systems, leading to ethical dilemmas. Second, the framework's application includes a procedural process, called a ten-step approach, to incorporate transparency into the decision-making process of humanitarian aid. Third, the framework sets ethical institutional requirements and parallels a tool that has proven helpful in the clinical setting.

The first aim of the framework is built using the authors' definition of commonly-shared values among humanitarian aid organizations. The values were extracted from an empirical study conducted in 2014 by Clarinval, who analyzed the value statements belonging to 46 international humanitarian organizations (Clarinval & Biller-Andorno, 2014). The values were then categorized as either substantive

and procedural and further classified as specific (either at macro- and meso- level or micro-level) or cross-cutting (for all levels). The substantive values were:

- Poverty reduction
- Sustainability
- Focus on those worst-off
- Self-determination
- Security
- Autonomy
- Beneficiary-centeredness
- Non-discrimination
- Empowerment
- Duty to provide care
- Vulnerability
- Justice
- Solidarity
- Equity
- Beneficence
- Nonmaleficence
- Cost-effectiveness
- Stewardship

The procedural values were:

- Inclusiveness
- Accountability
- Reasonableness
- Critical analysis
- Responsiveness
- Engagement
- Timeliness
- Protecting confidentiality
- Effectiveness
- Efficiency
- Transparency
- Scrutiny

Table 2 illustrates the framework's values according to this classification system:

<b>Table 2. Set of values</b>				
	<i>Specific values</i>		<i>Cross-cutting values</i>	
	<b>Substantive</b>	<b>Procedural</b>	<b>Substantive</b>	<b>Procedural</b>
<b>Macro- (head-quarter) and Meso-level (regional)</b>	Poverty reduction Sustainability	Inclusiveness Accountability Reasonableness Critical analysis	Duty to provide care Vulnerability Justice	Transparency Scrutiny
<b>Micro-level (local)</b>	Focus on the worst off Self-determination Security Autonomy Beneficiary-centeredness Non-discrimination Empowerment	Responsiveness Engagement Timeliness Protecting confidentiality Effectiveness Efficiency	Solidarity Equity Beneficence Nonmaleficence Cost-effectiveness Stewardship	

Furthermore, according to Clarinval and Biller-Andorno (2014), the ten most frequently cited values among the sources analysed in their empirical study were health, independence, poverty alleviation, accountability, humanity, sustainability, transparency, relief, dignity, and empowerment. The authors claimed that while this set of values is merely a selection, which can be helpful for individual organizations in developing their value matrix, it is striking that some values (e.g. health, independence, humanity, relief, and dignity) identified in the initial analysis were not included within the set of values classified according to their specific level (macro, meso level or micro). Moreover, the authors did not provide further information about the inclusion or exclusion method they used to select specific values for their framework.

Regarding the second aim of the framework, the ten-step approach for ethical decision-making by humanitarian aid workers includes the following activities:

- gathering evidence,
- specifying values, norms, or principles at stake,
- critical examination of arguments,
- defining options,
- weighing options,
- elaborating decisions,
- justifying choices,
- implementation,
- monitoring and evaluation, and
- recommendations for future actions (Clarinval & Biller-Andorno, 2014).



According to the authors, this approach embodies the ethical framework's core by structuring the decision-making process around the macro, meso, and micro levels.

Third, the final objective of the framework was to define institutional requirements for high ethical standards in humanitarian aid organizations. Because these standards require skilled professionals and sufficient resources, the authors provided a model, called the Hub and Spokes, that helps identify ethical issues, shape decision-making processes, formulate basic arguments, and analyze empirical data based on organizational values (Clarinval & Biller-Andorno, 2014, p. 7). The model was initially developed by MacRae et al. in 2005 (Clarinval & Biller-Andorno, 2014). In this model, the trained ethicist plays the role of a "hub" and is the central resource for ethical issues, working as a consultant and helping to set an organization's values. Continually providing education, involving workers in ethical activities, and creating focal points are the "spokes" for ethical issues and represent the primary goals of the ethicist in all departments of the organization (Clarinval & Biller-Andorno, 2014).

Finally, the authors address the challenge of achieving consensus on fundamental values or principles through the ever-new values that prevail in many humanitarian organizations. The second challenge was to embed the ethical issues in the decision-making culture of organizations, which is dominated by a geopolitical discourse. Other challenges included creating exchanges on ethical issues and experiences among organizations and providing the resources needed to establish or improve an ethical structure.

#### *3.1.1.5 PHAP Code of Ethics and Professional Conduct (Professionals in Humanitarian Assistance and Protection, 2017)*

The PHAP Code of Ethics and Professional Conduct was adopted by the International Association of Professionals in Humanitarian Assistance and Protection (PHAP) in 2017. The code primarily focuses on recognizing the value of human life and upholding human dignity but fails to provide detailed solutions or regulations for the complex ethical issues and dilemmas facing humanitarian action during disasters. Nevertheless, it does provide, through its principles, a ground for ethical consultation to arrive at the best answers to these issues and dilemmas.

Unlike the previous codes and frameworks described thus far, this code is binding on all members of the organization and everyone who is certificated from it, whether they are practitioners, supporters, facilitators, or partners in humanitarian work. The code, however, allows for its members and certificate holders to supplement the values and rules specified in the code based on their own values, culture, and experience, provided they do not violate the original principles of the code.

The code contains a set of core ethical principles that aim to define and guide humanitarian action. The code notes the importance of balancing its core principles based on the context and complexity of the human experience. These core principles are:

- Humanity
- Impartiality
- Neutrality
- Independence

It is the duty of the organization's members and certificate holders to discuss and formulate policies related to humanitarian action and goals, preserve and expand the humanitarian space, and adhere to neutrality. Independence, as it relates to humanitarian action, requires that humanitarian aid does not create dependency in the affected communities or obstacles to recovery and development efforts. In general, the code emphasizes maintaining any development achieved during a difficult situation and to not cause adverse effects during humanitarian work.

In addition to the basic ethical principles, the code also defines shared standards of professional conduct for its members and certificate holders. The standards direct them to:

- deal with the granted powers responsibly;
- support the agency of others in all aspects of work while realizing the fundamental equality of all people and not imposing personal will on others;
- always adhere to the highest possible standards and according to the situation;
- be aware of the obligations that are made and follow up. In addition, to carry out, if possible, only tasks within the area of expertise that can be performed and assume responsibility for them;
- improve the personal capabilities and the capabilities of the surrounding people by continuously acquiring the necessary knowledge, skills, and abilities;
- respect others, promote ethical behavior, and appreciate collegiality while taking appropriate measures to correct colleagues' unethical behavior;
- avoid conflicts of interest;
- avoid bias and make judgments based on evidence and objective analysis, not assumptions; and,
- promote awareness and understanding of principled humanitarian action (Professionals in Humanitarian Assistance and Protection, 2017).

#### *3.1.1.6 WMA Regulations in Times of Armed Conflict and Other Situations of Violence (WMA General Assembly, 2017)*

The World Medical Association (WMA) regulations, which provide a set of general guidelines on medical ethics during times of armed conflict and include a code of conduct for physicians, were originally adopted by the 10th World Medical Assembly in 1956, edited in 1957, and subsequently revised in 1983, 2004, 2006, and 2012. The primary purpose of the guidelines is not explicitly stated in the document; however, they do address the duties of physicians working in armed conflict and other

situations of violence and the obligations of governments and others in positions of authority to protect healthcare workers and facilitate their work. The guidelines claim that medical ethics in times of armed conflict should be identical to medical ethics in times of peace and that standard ethical norms are applied similarly.

Furthermore, it states that, in the event of conflicting duties, a physician's primary obligation remains to the patient. It also emphasizes that physicians should adhere to international conventions on human rights, international humanitarian laws, and the WMA declarations on medical ethics while also highlighting actions deemed to be unethical conduct for physicians. The unethical actions cited focus on violations to the duty of doing no harm (nonmaleficence) and protecting the confidentiality of patient information, noting that, for the latter, physicians may breach confidentiality only if withholding the patient's private information poses a significant risk to others. The guidelines also call more generally for safe access to patients and the protection of healthcare workers, hospitals, and healthcare facilities.

The following ethical principles and values are found in the WMA regulations:

- Liberty of clients
- Duty to care
- Humanity
- Respect for patient and colleagues
- Impartiality
- Non-discrimination
- Confidentiality
- Patient privacy
- Independency
- Not take part in any act of hostility (do no harm –nonmaleficence-)
- Not abandon the patients

The guidelines assert other duties under its code of conduct, such as a physician's duty to denounce or confront any unscrupulous practices or distribution of poor-quality drugs and to advocate for the patients' rights in treatment. Other examples cited as duties assigned to physicians include recognizing the vulnerability of some groups, pressing authorities for the provision and protection of the needed infrastructure, reporting unethical behavior of a colleague, keeping adequate health care records, and improving the appropriate standards of care.

The WMA guidelines recognize physicians may still potentially face ethical dilemmas while implementing the code of conduct in certain situations. The Code of Conduct section, item number 18, states “[p]hysicians must ... recognise that there are other situations where health care might be compromised but in which there are dilemmas” (2017). This dilemma might also arise, for example, when local norms require a healthcare worker to do something that is not morally acceptable, for

instance, if healthcare workers are asked to perform female genital mutilation (which is an unethical act according to the WMA) while working in parts of conflict-torn North Africa. As part of this dilemma, a healthcare worker could consider that it is better to perform the procedure with clean medical tools and appropriate skills rather than performed by a local village chief who does not have access to antiseptics, treatment for hemorrhage, or any other necessary medical equipment (Nathanson, 2013, p. 201).

### 3.1.2 National frameworks and codes

#### 3.1.2.1 *Ethical Guidance for Public Health Emergency Preparedness and Response: Highlighting Ethics and Values in a Vital Public Health Service (Jennings & Arras, 2008)*

This document contains the recommendations of the Ethics Subcommittee of the Advisory Committee to the Director, United States Centers for Disease Control and Prevention (CDC). Most of the subcommittee is comprised of ethics experts who routinely work with CDC officials. Their duties are to produce publications and educational materials, study issues of critical importance in public health ethics, and provide ethical advice to the Director, the Director's Advisory Committee, and other CDC officials. However, the document does not necessarily reflect the views or guidelines of the CDC (Jennings & Arras, 2008).

While this framework was published as a means to help foster further study and discussion of ethical public health emergency preparedness planning and response (PHEPR) (Jennings & Arras, 2008, p. 7), the main goal of the document is to provide an ethical framework that public health service providers can use when planning or responding to a public health emergency or other disasters, emphasizing moral orientation as a guide for planning and recovery phases. The authors acknowledged an "all-hazards" approach requiring the planning of a broader range of emergencies (Jennings & Arras, 2008, pp. 8-9). Moreover, they support public health approaches using the least restrictive alternatives, community involvement, and transparent communication (Jennings & Arras, 2008, p. 14).

Two dimensions are covered in the paper, the first dealing with the comprehensive ethical concept of PHEPR, while the second explores the specific moral dilemmas, choices, and difficulties that arise during the planning for PHEPR. The document is divided into three parts, with the two frameworks being in the first part. The first framework contains seven primary ethical goals that are most relevant to PHEPR and its purpose is to steer the development, updating, and implementation of the preparedness plan and process in emergencies and their consequences:

- 1) **Harm reduction and benefit promotion:** This is achieved by pursuing public safety and reducing the number of deaths, injuries, and illnesses during and after an emergency.

- 2) **Equal liberty and human rights:** This is achieved by respecting all persons' equal freedom, autonomy, and dignity.
- 3) **Distributive justice:** This goal emphasizes the need for fair and equitable sharing of benefits and burdens imposed by emergency response measures.
- 4) **Public accountability and transparency:** This is accomplished by making the decision-making processes inclusive, transparent, and trusted.
- 5) **Community resiliency and empowerment:** The goal is to reach solidarity and resilient societies by developing community resources. These resources will help the community to recover after emergencies.
- 6) **Public health professionalism:** This is achieved when the PHEPR activities recognize the special obligations of certain public health professionals. Additionally, emphasis must be placed on enhancing the competence and coordination among these professionals.
- 7) **Responsible civic response:** This is achieved by promoting a sense of personal responsibility and citizenship (Jennings & Arras, 2008, pp. 10-11).

The second ethical framework sets guidelines for improving critical thinking in ethical decisions and policymaking. The authors argue that the purpose of the guidelines is not to formulate a method to arrive at ethically correct decisions but to develop and promote a mindset that helps decision-makers be more flexible and alerted to various ethical values related to PHEPR. The guidelines suggest what decision-makers ought to do and which attitudes ethically responsible decision-makers ought to embody. According to Jennings and Arras (2008, p. 41), ethically-responsible public health leaders should be aware of the goals and objectives of public health mitigation measures and their alignment with the established goals of the public health profession. Those making decisions must also make certain that the mitigation activity is based on practical and reliable information. In addition, decision-makers are required to be aware of the ethical values and considerations that could arise and be at stake during mitigation activities. Their moral reasoning should be concrete rather than abstract and place primary consideration on the target group. Decision makers must also follow a careful evaluation of the mitigation activity and manage the timing of implementation of the mitigation activity appropriately and analytically.

The preceding frameworks provide general orientation and way of thinking, helping decision-makers pay attention to a wide range of ethical values and principles. It can also help them apprehend the facts influencing their ethical decisions as well as help maintain openness, flexibility, and confidence while facing the challenges of planning and responding to emergencies.

Finally, the document highlights the following values and ethical principles that should be followed during emergency planning and response and mitigation activities: respect to liberty and dignity, justice and equity, efficiency and effectiveness, transparency and accountability, responsible stewardship of scarce resources, professional integrity, civic and personal responsibility, and public trust. In outlining

these values, Jennings and Arras acknowledge the challenge of preparing and prioritizing different ethical goals in a framework for disasters (2008), stating that “the ethical goals of PHEPR are multiple, difficult to prioritize in any systematic or philosophically grounded way and may give rise to practical ethical dilemmas when they conflict” (p. 31). The authors also present as an example a potential conflict between the paternalistic aspects of PHEPR and autonomy as a right and civil liberty. Yet, they admit the limits of emergency plans and their application by claiming that “it is probably in the nature of any emergency plan that it cannot protect (or please) all of the people all of the time” (Jennings & Arras, p. 33), further adding that “there is much that is not yet understood about how to do emergency planning and disaster preparedness well” (2008, p. 172). Accordingly, it might not be easy to achieve a plausible plan for the preparedness and recovery phases of PHEPR without deep and thoughtful ethical discussion and further research.

### 3.1.2.2 *Ethical Guidelines for the Development of Emergency Plans (American Health Care Association, 2013a)*

The American Health Care Association developed the Ethical Guidelines for the Development of Emergency Plans in 2008 (Florida’s LTC Emergency Preparedness Portal, 2016) and modified the current version in 2013 (American Health Care Association, 2013b). These guidelines provide an ethical framework for developing emergency and disaster plans with a particular focus on long-term care facilities. The overall purpose of the document is to help policymakers and healthcare workers with disasters include sound, ethical guidelines in their crisis preparedness activities, but it also provides a set of moral principles that healthcare workers can use when responding to crises. The ethical values emphasized in this document for disaster preparation and responses are transparency, the observance of equal liberty, human rights, fair distribution, public responsibility, community partnership, and public health professionalism. The authors acknowledge their framework does not provide absolute answers or solutions but rather serves as a navigation for health centers’ ethical dilemmas, paralleling other bioethical methods and frameworks. To support this claim, the authors quote Tom Beauchamp and James F. Childress’ sixth edition of their book, *Principles of Biomedical Ethics*:

The problems of bioethics are often problems of getting just the right specification or balance of principles. Principles should never be conceived as trumps that allow them alone to determine a right outcome... rights, like all principles and rules of obligation, are *prima facie* (i.e., presumptively) valid claims that sometimes must yield to other claims. (American Health Care Association, 2013a, p. 3)

The document begins with a summary of the critical ethical components of disaster preparedness related to long-term care and introduces the Institute of Medicine’s Crisis Standards of Care framework. This framework includes three ethical values

(fairness, professional duty, and stewardship) and four ethical process elements (transparency, consistency, proportionality, and accountability). The second part of the document describes their Ethical Guidelines for the Development of Emergency Plans consisting of the following ethical principles:

- Beneficence
- Do no harm
- Respect for autonomy
- Justice

In the rest of the document, the authors define the most important ethical theories involved in decision making as well as the ethical questions and considerations during the preparation, mitigation, and response phases to disasters.

To support ethical decision-making during the preparation phases, the author references the seven ethical goals from John Arras and Bruce Jennings' published work, "From Birth to Death and Bench to Clinic: The Hastings Center Bioethics Briefing Book for Journalists, Policymakers, and Campaign" (2008). The purpose of the ethical goals is to assist in formulating, updating, and implementing disaster preparedness plans. These goals are as follows:

- harm reduction and benefit promotion,
- the equal liberty and human rights,
- distributive justice,
- public accountability,
- the development of robust and safe communities,
- public health professionalism, and
- reasonable civic response (American Health Care Association, 2013a, p. 5).

The authors also emphasize the vital role of prevention and mitigation strategies in reducing risks and vulnerabilities. To address the issue of resource scarcity during a mitigation process, the guidelines recommend incorporating the following ethical values:

- fairness,
- professional duty,
- stewardship,
- transparency,
- consistency,
- proportionality, and
- accountability (American Health Care Association, 2013a).

Finally, the document argues that events commonly occurring during the crisis and the response phase, such as medical triage, resource allocation, and standards of

care, requires careful ethical planning and assessment, and health centers must recognize these events as not only practical issues but also as ethical issues. To help work healthcare workers formulate ethical responses, the authors cite three ethical principles pertinent to this phase of a disaster:

- the duty to maximize the number of lives saved (i.e., principle of utility),
- the duty to do no harm, and
- the duty to provide care to all (i.e., justice) (American Health Care Association, 2013a).

### 3.1.2.3 *Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report (Institute of Medicine, 2009)*

An Institute of Medicine (IOM) committee, convened at the request of the Office of the Assistant Secretary for Preparedness and Response in the United States, developed the *Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations* in 2009. The purpose of the report is to identify an ethical framework applicable to health protocols during man-made or natural disasters that can be used by state and public health authorities, health agencies, and other health care institutions. According to the IOM (2009), incorporating a framework with key elements and ethical principles into care protocols will help develop a crisis standard of care. Such a standard can provide specific legal and regulatory powers that help create consistency in medical disaster responses and also protect healthcare providers when allocating and implementing scarce medical resources. Moreover, the elements and values provided in the framework serve as a guide in developing disaster policies.

The key features are listed under a series of recommendations in this report. The recommendations are based on available standards of care instructions, policies, protocols, published literature and expert opinions, which were then delivered and discussed in a special workshop (Institute of Medicine, 2009). The five key elements that results from this workshop include:

- a solid ethical grounding,
- integrated and ongoing community and provider engagement, education, and communication,
- assurances regarding legal authority and legal environment,
- clear indicators, triggers, and lines of responsibility, and
- evidence-based clinical processes and operations.

According to the authors, the elements represent a process of connected steps. These steps include assisting individual communities to identify clear and coherent indicators that will trigger a change in the regular delivery of health care during disasters, as well as the triggers that must be activated to implement the crisis standard of health care delivery (Institute of Medicine, 2012).



In addition, the authors acknowledged that while different principles could contribute to an ethical framework, they focused on a limited number of substantive and process moral values in developing their ethical framework. They considered these values as essential elements that could serve as a model or starting point for local considerations without providing clear criteria for the selection and exclusion.

The ethical framework contains the following moral values:

- Fairness
- Duty to Care
- Duty to Steward Resources

The ethical process elements are as follows:

- Transparency
- Consistency
- Proportionality
- Accountability

To illustrate the implementation of crisis standards of care and test the guidelines and principles contained in the report, the Committee piloted two theoretical case studies (Institute of Medicine, 2009). One case presented the scenario of a gradual onset of pandemic flu, and the other case presented a sudden earthquake. Additionally, the ethical framework was applied in the case of ventilator allocation by examining the hard choices in such situations.

The document also recognizes the importance of improving trust with vulnerable populations and improving resiliency through the active engagement of the community and stakeholders. According to the authors, “the committee strongly recommends extensive engagement with community and provider stakeholders. Such public engagement is necessary to ensure the legitimacy of the process and standards and, more importantly, to achieve the best possible result” (Institute of Medicine, 2009). However, the Committee drew attention to the exceptional time constraints (the committee held a four-day session, which included a one-day workshop) that limited the scope of work and the possibility of a solid process for community engagement.

#### *3.1.2.4 Guidance for the Ethical Allocation of Scarce Resources during a Community-Wide Public Health Emergency as Declared by the Governor of Tennessee (Altered Standards of Care Workgroup, 2016)*

The guidelines here, written by the Altered Standards of Care workgroup, were developed by drawing on the professional public health literature related to ethics and emergency responses and through consultation with experts in those disciplines. The overall purpose of this guidance document is to provide an ethical framework that can aid decision-makers and healthcare workers when responding to

emergencies at the community level. As its key features, the document highlights the importance of trust and solidarity in society and among stakeholders as well as the importance of taking prompt and appropriate measures that reduce morbidity and mortality and mitigate the negative impacts of disasters on social and economic systems. The ethical principles and values chosen for this framework are meant to guide triage and allocation of scarce resources during significant crises. Notably, this document observes the need to apply the guide to all patients who require acute treatment during the emergency period and cautions against taking social worth and other non-medical factors into consideration during the decision-making process (Altered Standards of Care Workgroup, 2016, p. 2).

The ethical framework includes the following principles and values:

- **Duty to plan:** Describes the duty to plan how limited resources will be allocated during emergencies and disasters, which is the responsibility of healthcare workers.
- **Duty to care:** The public's health is the primary duty of healthcare workers and healthcare institutions.
- **Reciprocity:** This principle defines the duties owed to healthcare workers and society in the planning stage of medical emergencies that occur at the community level, with clear lines of authority, fair allocation of work schedules, and protection for workers.
- **Stewardship of resources:** Describes the necessity for adequate and responsible management of scarce resources so that their use is effective for the community.
- **Respect for human dignity:** All people must be equally respected as human beings without discrimination.
- **Communication:** Communication and discussion about triage and allocation should be participatory, based on community values, and transparent.

The guide also adopted the Institute of Medicine's matrix for treatment capacity and level of care (Altered Standards of Care Workgroup, 2016, p. 4). This matrix outlines the steps that must be taken to substitute, conserve, adapt, and reuse critical resources (space, staff, supplies) for the standard of care during disasters. This occurs on three levels: conventional, where resources and standards of care are applied as usual; contingency, where the use of resources and the level of care are not as regular but are still functionally-equivalent to routine patient care practices; and crisis, which involve a significant adjustment to standards of care and the use of resources. The goal of the matrix is to guide practitioners on how to provide the best possible care to patients in the setting of a catastrophic disaster. Switching between these levels depends on an increased demand-to-resource imbalance and an increased risk of morbidity and mortality for the patient.

This document also provides specific conditions for when its state government must activate Tennessee's guidelines for ethical allocation of scarce resources and

crisis standards of care. All conditions must be met before implementing the crisis measures changing care provision. For example, if the surge capacity is fully utilized but resources are modified to the maximum level, then this would not completely meet the conditions of the disaster guidelines. The authors argue that it is imperative to first maximize all available resources, urging healthcare coalitions and hospitals to work together to achieve that (Altered Standards of Care Workgroup, 2016, p. 5). The appropriate institutional committee can then review and recommend the initiation of crisis guidelines if resources are severely limited and can no longer be extended to meet infrastructure needs.

Regarding the provision of medical care when the crisis guidelines are activated, the authors justified the measures based on the utilitarian doctrine of maximizing efforts to save as many lives as possible while bearing in mind the scarcity of resources. These standards were modeled after the state of Utah's criteria for patient admission into the hospital and in the intensive care unit and do involve exclusion criteria. The guidelines exclude certain medical conditions or situations where it is impossible to provide maximum medical care to everyone, for instance, patients with severe injuries or illnesses unlikely to survive through the following year, or those requiring a large number of resources that cannot be provided, especially with the presence of long-term mass casualties (Altered Standards of Care Workgroup, 2016, p. 8). Comfort care and hospice services should be offered as an alternative for those excluded from maximum care.

#### 3.1.2.5 *Code of Ethics for Emergency Physicians (American College of Emergency Physicians, 2017)*

The Code of Ethics for Emergency Physicians was approved by the American College of Emergency Physicians (ACEP) Board of Directors in June 1997 when it replaced the "ethics manual" from 1991 (American College of Emergency Physicians, 2017). The code was reaffirmed by the ACEP Board of Directors in October 2001 and subsequently revised in 2008, 2016, and 2017, the latter representing the current version (American College of Emergency Physicians, 2017). It was designed as a tool to help practitioners and students navigate difficulties and ethical issues encountered in clinical and emergency care. Specifically, it provides a moral framework for emergency physicians to utilize when making difficult and time-sensitive decisions in emergency and disaster situations.

The code consists of 10 fundamental yet diverse principles that impose a moral responsibility on emergency physicians. First is the duty to care principle, which assesses the primary professional responsibility of caring for patients on emergency physicians. The second principle is non-discrimination when providing emergency medical care. Respect is also included, meaning, physicians must respect the rights of patients and strive to protect their best interests, particularly for the most vulnerable. Truthful communication is highlighted as an essential principle and requirement for informed consent, and the document clarifies that patients whose

condition requires an immediate response are excluded from obtaining informed consent. Another principle of note is the obligation of physicians to protect and respect patient privacy and confidentiality. Confidentiality cannot be breached except with the patient's consent or in exceptional cases, such as those requiring the protection of others or compliance with the law. The theme of these principles focuses on honesty and fairness in the emergency physicians' interactions with one another. Moreover, the document makes clear that the emergency doctor is responsible for stewarding the medical resources.

In addition to its fundamental principles, the code situates the physician-patient relationship in emergency medicine within the principles of beneficence, nonmaleficence, respect for patient autonomy, and justice. The document also recognizes that emergency physicians have professional obligations to others in their field. Importantly, however, the relationship between the emergency physician and the community or society includes several duties, such as opposing violence and affirming that emergency medical care is a fundamental right, with the need to provide adequate resources and steward them effectively.

The code also includes a policy compendium (ACEP policy) evaluating the ethical foundation for emergency medicine. The policy describes the issue of moral pluralism, the moral challenges emergency physicians face, and the virtues inherent in emergency medicine, which are courage, justice, vigilance, impartiality, trustworthiness and resilience. The full range of ethical issues described in the policy, however, is extensive, including but not limited to: antitrust, conflict of interest, cultural awareness, disclosure of medical errors, discontinuing resuscitation in the out-of-hospital setting, non-discrimination and harassment, and ethical issues at the end of life. Furthermore, the ACEP policy places particular emphasis on protecting patients from ethical violations, crimes, and clinical practices that endanger the well-being of patients. In such cases, the ACEP members are responsible for initiating a review of and potential action against other ACEP members who have violated the code:

[T]he Code of Ethics states emergency physicians ... hold a responsibility to not commit crimes of moral turpitude, perhaps best defined as crimes that shock the public conscience as being inherently base, vile, or depraved, or contrary to the rules of morality and the duties owed to individuals or society in general (Venkat et al., 2018, para. 5).

The code is widely recognized by ACEP members but faces challenges and difficulties in application. In 2016, the ACEP Ethics Committee led a survey to reassess ACEP members' views of the current application of the ACEP Code of Ethics to identify novel challenges in emergency practice (Marco et al., 2016). The survey revealed that most members were aware that ACEP has a code of ethics; however, it was found that Principle 9 ("Act as responsible stewards of the health care resources entrusted to them") and Principle 10 ("Support societal efforts to improve public health and safety, reduce the effects of injury and illness, and secure access

to emergency and other basic health care for all”) present significant challenges for physicians to implement and may require further guidance.

### 3.1.2.6 *Arizona Model Code of Public Health Emergency Ethics (Hodge et al., 2012)*

The Arizona Model Code of Public Health Emergency Ethics started as a project and conference presentation in 2012 by a group of experts in public health emergencies and ethics from the Lincoln Center for Applied Ethics and the Public Health Law and Policy Program and the Sandra Day O’Connor College of Law (Hodge et al., 2012). While the code was meant to represent a consensus among public and private actors in the state of Arizona, it contains general principles underpinning a public health emergency and provides guidance that can be applied to public and private health sectors in critical situations during public health emergencies. Yet, according to Hodge et al. (2012), the code was not developed as a free-standing guide but rather as a supplement for other existing codes of ethics for healthcare practitioners and public health institutions.

The code includes eight core principles, each with its own sub-principles, summarized below:

1. Duty to care:
  - 1.1. Duty not to abandon: This principle refers to the duty healthcare workers have to not leave sick or injured people who can be cared for, regardless of prior commitments and available resources.
  - 1.2. Duty to care despite risks: This principle encourages the provision of health care using necessary safety measures despite the dangers presented. This duty must be balanced with the moral obligation to society and to the families of caregivers and those they owe a duty to care.
  - 1.3. Duty to provide comfort care: This principle affirms that if resources are scarce and therefore unavailable for certain patients, then appropriate palliative and curative care must be provided to them.
2. Soundness:
  - 2.1. Effectiveness: Care must be effective based on accurate data and practical experience.
  - 2.2. Priority: Protecting the public from preventable causes of illness and death is a primary duty for healthcare workers during emergencies.
  - 2.3. Non-diversion: Critical emergency resources should be focused on addressing emergency conditions only.
  - 2.4. Information: The decision-making process must rely on a solid and informed awareness of the situation. It is vital to share decision-making with caregivers and limit private and immediate decisions without prior planning.
  - 2.5. Appropriateness: Emphasizes the importance of having qualified decision-makers or consulting with qualified professionals when needed

to assess public health and make alternative decisions and determine their ethical consequences.

- 2.6. Risk assessment: Emphasizes the importance of subjecting emergency care and response to an appropriate risk assessment to avoid unnecessary risks to others or undermine the response directed at a more significant threat to society.
- 2.7. Flexibility: Decisions are based on changing data and information and therefore recognized as flexible and subject to change.
3. Fairness:
  - 3.1. Consistency: Applies to decision-making standards and methodology.
  - 3.2. Justice: Emphasizes the importance of the equitable distribution of scarce resources, meaning, resources must be distributed on the basis of health status and emergency response needs and without discrimination.
  - 3.3. Medical need and prognosis: Following the medical condition and prognosis for allocating scarce medical resources and other indicia of survivability.
4. Reciprocity:
  - 4.1. Protections for individuals: This includes implementing measures to compensate individuals affected by public health restrictions, such as protecting them from job loss and any other negative repercussions resulting from these restrictions.
  - 4.2. Protections for essential personnel: Healthcare workers and first responders should be given priority in obtaining prevention measures and providing other services such as childcare and work compensation.
  - 4.3. Protections for essential providers: This includes providing additional support and resources to healthcare workers as compensation for their heavy financial or logistical burdens during the emergency response.
5. Proportionality:
  - 5.1. Balancing obligations: Decision makers have a responsibility to balance the various commitments of a public health emergency, such as protecting community health, respecting individual liberties, and choosing alternative options to legal and moral rights.
  - 5.2. Limited application and duration: Restrictive measures should be voluntary, temporally limited, and imposed only if standard public health measures are inadequate or available.
  - 5.3. Well-targeted: Restrictive measures should also only be applied to individuals or groups to avoid significant risks to the population's public health.
  - 5.4. Privacy: The privacy and confidentiality of individuals and groups must be respected and not be shared unless there is a rational reason to protect public health.

6. Transparency:
  - 6.1. Public engagement: Public participation occurs by putting forward response plans to public health emergencies and soliciting interventions and comments.
  - 6.2. Openness: Comprehensiveness, honesty, and openness must be adopted in communicating emergency intervention decisions that affect the public.
  - 6.3. Communication systems: When consulting with relevant stakeholders and the public, multiple, available and effective communication systems should be used.
  - 6.4. Documentation: Decisions should be documented to the greatest extent possible.
  - 6.5. Full disclosure: Information needs to be provided about the risks of participating in emergency response to the maximum extent possible.
  - 6.6. Accessibility: Vital information should be provided in an easy and accessible manner for people of all ages, disabilities, and language abilities to the greatest extent possible.
7. Accountability:
  - 7.1. Individual responsibility: Emergency response orders or recommendations must be complied with by individuals, and whoever chooses not to comply may lose priority access to future aid.
  - 7.2. Duty to evaluate: The efficacy of decisions and responses must always be evaluated.
  - 7.3. Public accountability: Decision makers ought to be held accountable before the public if they do not adhere to the standards and principles stipulated in the code.
8. Stewardship of Resources:
  - 8.1. Duty to plan: This includes planning and developing appropriate guidance for health care practitioners, emergency responders, or anyone involved in emergency response efforts.
  - 8.2. Triage allocation plan: This includes creating a plan to organize scarce resource allocation that is consistent with the principles and rules included in the code.
  - 8.3. Specificity: It is important that the guidance provided be as specific as possible.
  - 8.4. Duty to recover and restore: This point emphasizes the importance of developing advance plans to recover and restore resources that were used during an emergency.

In this chapter, 12 ethical frameworks, guidelines, and codes were reviewed and summarized. The review included determining the date of development of the ethical frameworks, their developers, their main objectives and aims, and how they were developed (if this is known). Moreover, the review attempted to clarify the

means and reasons why certain principles and values were included in these ethical frameworks and codes. In addition, some of the challenges, contradictions, criticisms, or dilemmas facing the application of these ethical frameworks and codes were highlighted for future research and policy consideration.

### **3.2 The results of analyzing the ethical frameworks and codes**

Each ethical framework or code is set upon a package of ethical principles, moral values, and practical guidelines by which to compare the ethical principles and values used by healthcare workers in Syria and considered important during the war. This comparison can help identify the similarities and differences between the principles and values included in the general frameworks versus what principles healthcare workers in Syria followed during the war. Identifying these differences is important to develop recommendations or ethical frameworks and codes appropriate to the Syrian context.

The Qualitative Content Analysis method was used to complete this comparison by analyzing and synthesizing each ethical framework, code, and guideline described in the previous section. Furthermore, the Arizona Model Code of Public Health Emergency Ethics (Hodge et al., 2012) was used as a control during analysis due to its concise, practical methodology and systematic organizing power. More importantly, however, given the paucity of ethical guidance specifically for healthcare workers living in conflict zones, the Arizona Code provides an opportunity to identify principles that could be further extrapolated in the context of war since it includes a wide range of values and ethical principles applicable during emergencies. For example, the issue of scarce resources is a major problem that causes ethical dilemmas and challenges for healthcare workers during war and emergencies. While many documents in the review identified this as an ethical issue related to justice and fairness in the direction of the patient, the Arizona Code additionally recommends the “stewardship of resources” principle to emphasize the value of properly using scarce resources as an ethical end.

The process for analyzing the ethical frameworks, codes, and guidelines according to the Qualitative Content Analysis included reading each document repeatedly (i.e., more than once), writing memos with notes and summaries, and then open coding the data line by line, looking for ethical principles and values to systematically analyze with the preselected principles and values from the Arizona Code. Ethical principles and values unable to be systematically aligned with those of the Arizona Code were analyzed separately. The ethical values and principles from each document were then carefully examined and synthesized to find the best fit between them. Some segments are thus coded under principles and values that suit their meaning and content.



The results of this analysis are presented in Table 3 “Analysis of the ethical frameworks and codes relying on the Arizona Code” (see Appendix), which presents the systematic analysis and categorization of the ethical principles and values adopted in each of the ethical frameworks and codes by using the Arizona Code, and Table 4 “Analysis of values and principles that are different from those of the Arizona Code” (see Appendix), which includes the ethical principles and values that could not be aligned and categorized according to the Arizona Code and were therefore analyzed separately. Some of the ethical frameworks and codes also contain guidelines in the form of policies or sections dedicated to explaining or describing their chosen ethical principles and values. These guidelines were aligned and categorized according to their meaning and content with appropriate ethical principles and values.

The table below provides a summary of the ethical principles and values of the Arizona Code and those identified in the other frameworks that were not identified in the Arizona Code:

<b>Table 5. Final list of ethical values and principles</b>	
<b>The ethical principles and values of the Arizona Code</b>	
1. Duty to care	1.1. Duty not to abandon
	1.2. Duty to care despite risks
	1.3. Duty to provide comfort care
2. Soundness	2.1. Flexibility
	2.2. Risk Assessment
	2.3. Appropriateness
	2.4. Information
	2.5. Non-Diversion
	2.6. Priority
	2.7. Effectiveness
3. Fairness	3.1. Medical need and prognosis
	3.2. Justice
	3.3. Consistency
4. Reciprocity	4.1. Protections for essential providers
	4.2. Protections for essential personnel
	4.3. Protections for individuals

5. Proportionality	5.1. Privacy
	5.2. Well-targeted
	5.3. Limited application and duration
	5.4. Balancing obligations
6. Transparency	6.1. Accessibility
	6.2. Full disclosure
	6.3. Documentation
	6.4. Communication systems
	6.5. Openness
	6.6. Public engagement
7. Accountability	7.1. Public accountability
	7.2. Duty to evaluate
	7.3. Individual responsibility
8. Stewardship of resources	8.1. Duty to recover and restore
	8.2. Specificity
	8.3. Triage allocation plan
	8.4. Duty to plan
	8.4. Duty to plan
<b>Values and principles that are different from those of the Arizona Code</b>	
9. Beneficence	20. Neutrality
10. Independence/Self-determination	21. Vulnerability
11. Duty to press governments	22. Responsiveness
12. Respect	23. Inclusiveness
13. Humanity	24. Resilience and Empowerment
14. Individual liberty (autonomy)	25. Beneficiary- centeredness
15. Nonmaleficence (do no harm)	26. Focus on the worst off
16. Solidarity	27. Sustainability
17. Universality	28. Vigilance
18. Unity	29. Courage
19. Voluntary service	30. Trust/Trustworthiness

## **4 Results of the qualitative-empirical interview study**

In this chapter, the results of the interviews are presented and analyzed. Forty-seven healthcare workers were asked to participate in the study, and 22 of them agreed to be interviewed, resulting in a response rate of 46.8%. This sample size demonstrated to be sufficient based on the continuous re-evaluation of the interviews. From this process, it was determined that further data was not needed from the threshold of what preceded it to understand the phenomenon, and therefore no additional interviews were needed. A total of 22 interviews took place between May 2019 and August 2019. Every interview lasted between 30 and 90 min. The participants included 10 physicians, eight nurses, two pharmacists, one prosthetics technician, and one anesthesiologist; this included 20 male participants and 2 female participants. Some physicians and nurses worked in medical specialties other than their previous specialties, or the one they trained in, due to the lack of healthcare workers. A few participants worked in the administration field in addition to their primary role as a doctor or a nurse. Eleven participants were still working in Syria in areas experiencing military conflicts when interviewed. In comparison, the other 11 participants worked in Syria during the period of revolution and war but left the country at some point, living in countries outside of Syria when interviewed.

## 4.1 Sample demographics

Tables 6 and 7 summarize the distribution of participants in the research study by profession, gender, and age:

**Table 6. The distribution of research participants according to profession and gender**

Gender	Doctor (DOC)	Nurse (NUR)	Pharmacist (PHA)	Anesthesiologist and resuscitator (ANE)	Prosthetics technician (PRO)	Total
Male	10	7	1	1	1	20
Female		1	1			2
						22

**Table 7. The distribution of research participants according to profession and age**

Age in years	Doctor (DOC)	Nurse (NUR)	Pharmacist (PHA)	Anesthesiologist and resuscitator (ANE)	Prosthetics technician (PRO)	Total
20-30	1	3		1	1	6
30-40	1	4	2			7
40-50	8	1				9
50-60						
						22

## 4.2 Transcription and data analysis

The phone conversations were audiotaped using a speakerphone and tape-recorder with a portable taping machine. Twenty-one interviews were done in colloquial Arabic language and one in English. During the recording process, the following was completed:

- Test the recording devices before starting data collection.
- Check the sound clarity and compatibility.
- Use an extra recording device on the laptop and carried paper and pens as a backup.
- Write notes during the interviews.

To protect privacy and ensure the quality of sound in the recordings, all interviews were completed in a quiet room.

Interview recordings were manually transcribed into Microsoft Word documents, using Express Scribe Transcription Software (a professional audio player software for PC) to help transcribe audio recordings. This software offers many features, including that it supports playing audio and encrypted dictation files with

the ability to playback with variable speed. It also allows the use of hotkeys to playback without using the mouse when transcribing directly into Word, all of which contribute to improving, facilitating, and speeding up the transcribing process. Smooth verbatim transcription was also utilized as a method to convert the spoken word into text. Mayring (2022) explained the smooth verbatim transcription as follows:

The transcription is done word-for-word, but all utterances like uhms or ahs, decorating words like, right, you know, yeah are left out. A coherent text, simple to understand but representing the original wording and grammatical structure, is produced. Short cut articulation and dialect are translated into standard language. (p. 132)

Interview transcriptions were completed in Arabic, and, after reviewing the transcriptions, translated into English using professional dictionaries like Babylon. The primary findings were presented to the supervisors of the study, who are specialized in this field, to increase the study's credibility (Carnevale, 2002). A professional translator revised the translation of interview quotations included in this dissertation.

Next, the transcriptions were analyzed according to the following steps (Kuckartz, 2019, p. 186):

### **1. Preparing the data, initiating text work**

To develop aspects of interpretation from the data, an initial read-through of the first few interviews was completed, writing supplemental memos, to understand the participants' experiences. After, a closer, more in-depth reading of the interviews was completed to identify underlying content (Given, 2008, p. 121).

### **2. Forming main categories corresponding to the questions asked in the interview**

An inductive approach called "inductive category development" (Mayring, 2004) was used to form the categories. Figure 3 below illustrates the steps of inductive category development:

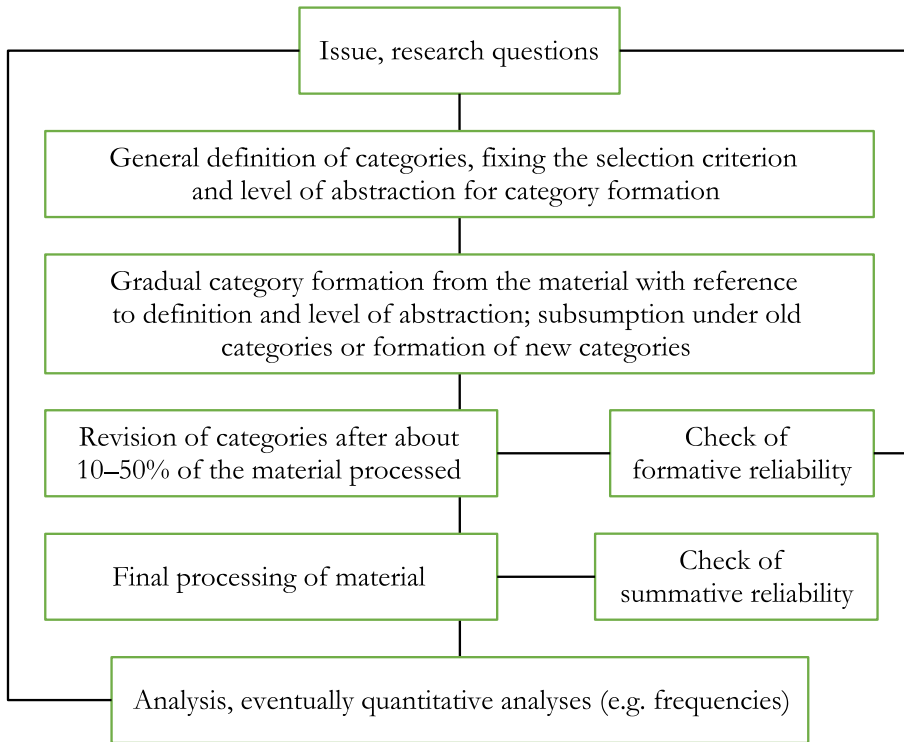


Figure 3. Steps model of inductive category development (Mayring, 2004)

According to Mayring (2004), the primary goal of this approach is to form a criterion of definitions (for the categories) derived from the research questions and theoretical background to help guide what aspects of the data should be taken into account. During the early stages of interview data analysis, six categories based on the research questions were preliminarily drafted:

- 1) Challenges and dilemmas
- 2) Moral values and principles at stake
- 3) Ethical frameworks application and needs
- 4) Feelings of healthcare workers during the war
- 5) Duties and rights of healthcare organizations and healthcare workers
- 6) Real-life stories

### 3. Coding data with the main categories

The corresponding text segments of about ten percent of the interviews were temporarily coded using these six categories. Coding was conducted using MAXQDA software (Roller & Lavrakas, 2015, p. 248). MAXQDA was selected for comprehensive qualitative data analysis because it offers user-friendly tools that are easy to

learn yet designed for advanced coding, retrieval, and transcription. Moreover, the program is flexible and allows the code system to be expanded or refined. The software helped organize the empirical materials by linking relevant quotes and organize other related ideas, theoretical concepts, and literature into memos. Using MAXQDA reduced the size and complexity of the data obtained from the interviews, helping to identify real-life stories and quotes that could be used to illustrate the present study's most relevant topics.

The data analysis revealed specific challenges and ethical conflicts from the participants that required further qualitative analysis. Because these issues were both unique and significant, they were included in the categories regardless of their frequency in the data, focusing more on the qualitative aspect of data during the formation of categories.

#### **4. Compiling text passages of the main categories and forming subcategories inductively on the material; assigning text passages to subcategories**

After compiling text passages coded with the main categories, subcategories were developed from the data. For example, the first category, *Challenges and dilemmas*, coded responses to the question regarding healthcare workers' ethical difficulties and conflicts during the war. The text passages to which this category was assigned were compiled and coded in an open coding manner. The codes represented specific issues brought up by the participants that described the difficulties and conflicts they encountered during their work:

- Attacks on healthcare workers and their facilities
- Balancing duty to care with personal risks
- Lack of resources
- Favoritism
- Lack of monitoring
- Caring for non-war patients and vulnerable groups
- External agendas of healthcare and humanitarian organizations
- Multiple ethical frameworks and weak coordination among healthcare and humanitarian organizations
- Conflict of interest
- Unqualified persons working in the field

Furthermore, as the open codes were arranged, a few subcategories resulted, namely:

- Risks from providing care
- Stewardship of resources and service challenges
- Corruption

This was completed for each category in order to develop sub-categories. After completing about ten percent of the data, the original six categories were reworked depending on the relevance among categories, sub-categories, codes, and the text segments relevant to specific categories (keeping in mind the research questions). Eventually, the original six categories were modified and reduced into two main categories (A and B), several subcategories, and codes while examining them in terms of reliability. The new revision of categories, sub-categories, and codes was completed through discussion and feedback with the study supervisors.

**Main category A** (the experiences of healthcare workers about the difficulties of work and the challenges of applying ethical frameworks and codes in Syria during the war) **and its subcategories and codes are:**

1. Risks from providing care
  - Attacks on medical facilities and threats to healthcare workers
  - Lack of protection for healthcare facilities
  - Balancing duty to care and commitment to humanity with personal risks
2. Stewardship of resources and work challenges
  - Lack of resources
  - Working outside one's scope of practice
  - Unqualified persons working in the health field
  - Work overload and employment rights
  - The spread of epidemic diseases
  - Expired medicines
  - Caring for non-war patients and vulnerable groups
  - Lack of training in disaster ethics
  - Justice, fairness, priority, and triage
  - Neutrality, equality, and non-discrimination
3. Corruption and organizational pressure
  - Corruption within the society
  - Favoritism and negligence
  - Lack of authority and accountability
  - Lack of monitoring and management
  - Lack of coordination and communication between health organizations themselves and between them and their healthcare workers
  - External agendas of health and humanitarian organizations
  - Health organizations and multiple ethical frameworks
  - Transparency, fidelity, and truth-telling
4. Psychological, emotional, and social stress
  - Feelings of Syrian healthcare workers during the war
  - Solidarity



- Islamic ethics and community customs
- Privacy

These four sub-categories were used to code the text passages in which the participants reported experiences with the conflicts and challenges of implementing ethical frameworks, codes, and moral values during the war. For example, in the first sub-category, *Risks from providing care*, participants described the dangers and attacks they and their medical and service centers faced during their work. They also described the difficulties and challenges between following the duty to care, the principle of humanity on the one hand, and the challenge of staying, working, and not leaving patients, despite the significant risks on the other. This dilemma created a challenge for the application of the ethical principles and values.

In the second sub-category, *Stewardship of resources and work challenges*, participants discussed the challenge of managing and equitably distributing resources, implementing justice, and the priority and triage system. In addition to the service difficulties they faced during the war, which put them in front of dilemmas and conflicts related to implementing the ethical values and principles that they learned, was the issue of remaining neutral. The participants also described a lack of training in disaster ethics, weak ethical policies, and a lack of prior planning that contributed to the difficulty of applying ethical frameworks and codes.

In the third sub-category, *Corruption and organizational pressure*, participants discussed the existence of corruption, favoritism, and negligence leading to difficulties of applying the principles of transparency, fidelity, and honesty with the clients. The participants also indicated that the absence of authority and weak management and monitoring led to implications for the principle of accountability. Furthermore, the participants also described corruption in medical and humanitarian organizations, the lack of coordination and trust between them, and their adoption of different ethical frameworks, which made it challenging to implement them by healthcare workers.

In the fourth sub-category, *Psychological, emotional, and social stress*, participants described mental, emotional, and social tensions they experienced during the war that resulted in physician burnout and incapacitated the moral decision-making capacity of many healthcare workers. The participants also described the absence of international solidarity and support that would have lifted their morale and demonstrated they were not left alone to their fate. Finally, the participants also noted the significant impact of culture and religion on the pattern of decisions and ethical principles adopted by healthcare workers.

### **Examples illustrating the formation of Category A**

Figures 4 and 5 below illustrate step-by-step how category A was formed, starting from the transcription text and ending with the overarching category. The “meaning unit” (participant’s words) includes a quote from the interviews to present the

experience or opinion of healthcare workers. The meaning units that deal with similar issues were then coded into a suitable code. Codes containing related issues were organized into subcategories, and subcategories were collected under the umbrella of the main category.

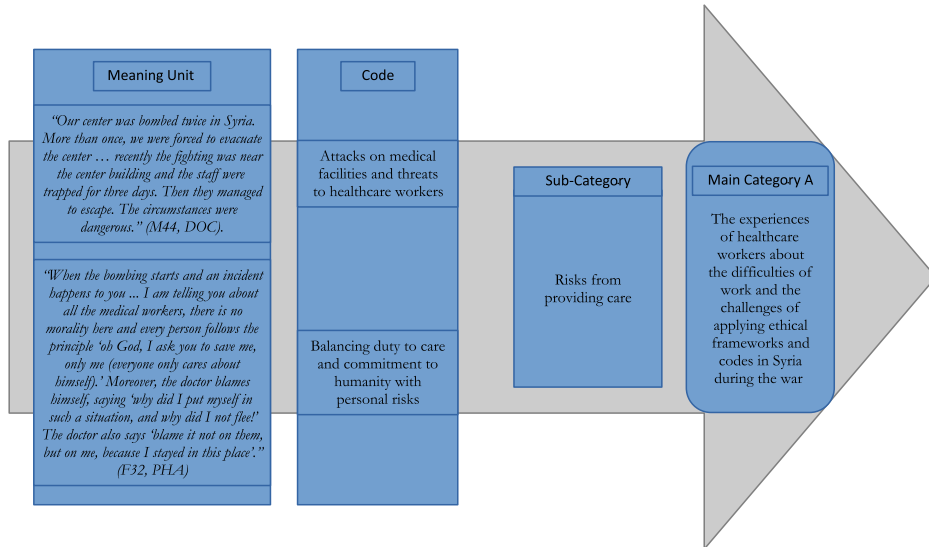


Figure 4. Example 1 of forming category A

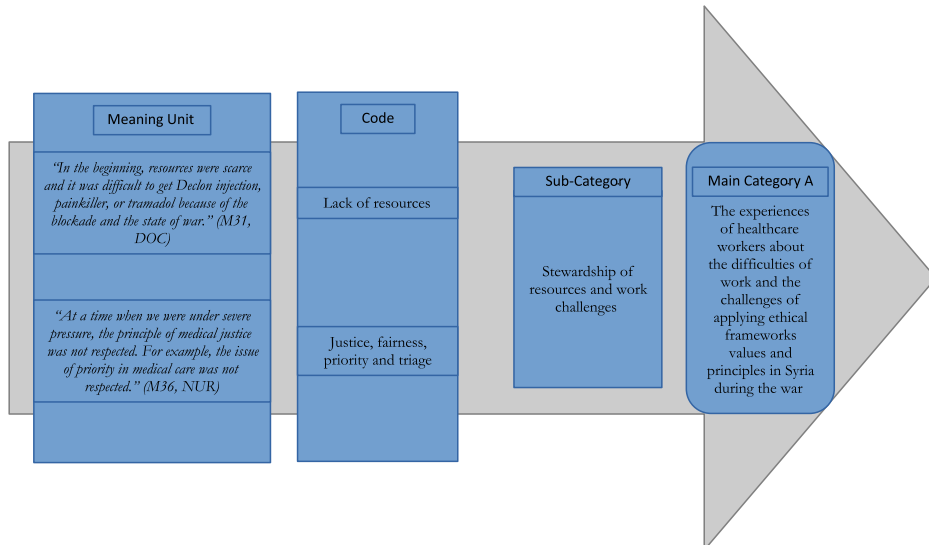


Figure 5. Example 2 of forming category A

**The main category B** (The ethical principles and values used or considered important by participants) **and its codes:**

Since the goal in forming category B was to identify ethical principles and values used or considered important to healthcare workers, there was no need to create subcategories. Figure 6 illustrates an example of how the category B was formed:

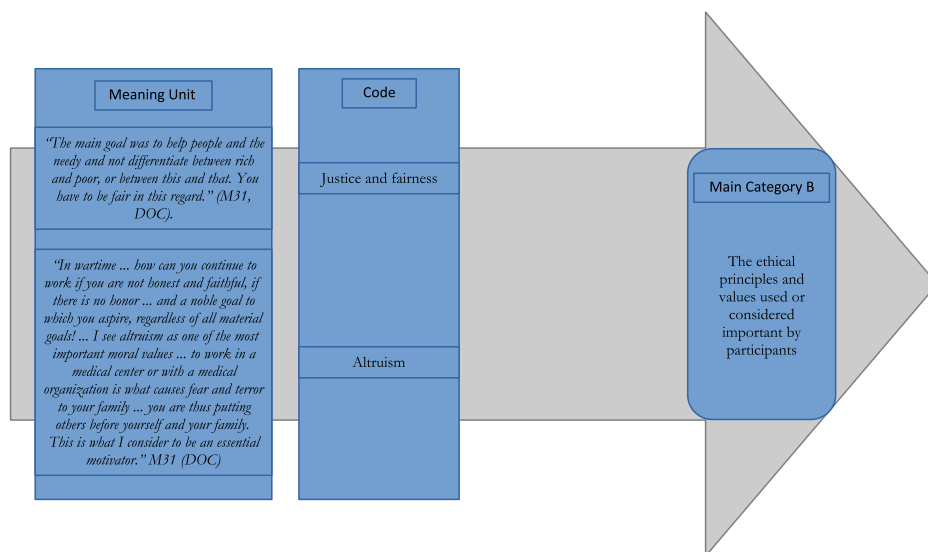


Figure 6. Example of forming category B

## 5. Category-based analyses and results

The remaining part of the data (about 90%) was further coded using the new version of categories, and the final textual analysis was completed. The main categories, subcategories, and codes captured various issues. The issues included the challenges and dilemmas healthcare workers faced during the war and their feelings about them, the important moral frameworks and codes used in care, the duties and rights, and the moral values and principles at stake.

### 4.3 Presenting the results

This section includes a summary of the data extracted from the interviews (e.g., quotes). Figure 7 and Table 8 below illustrate and outline, respectively, the main category A sub-categories and codes:

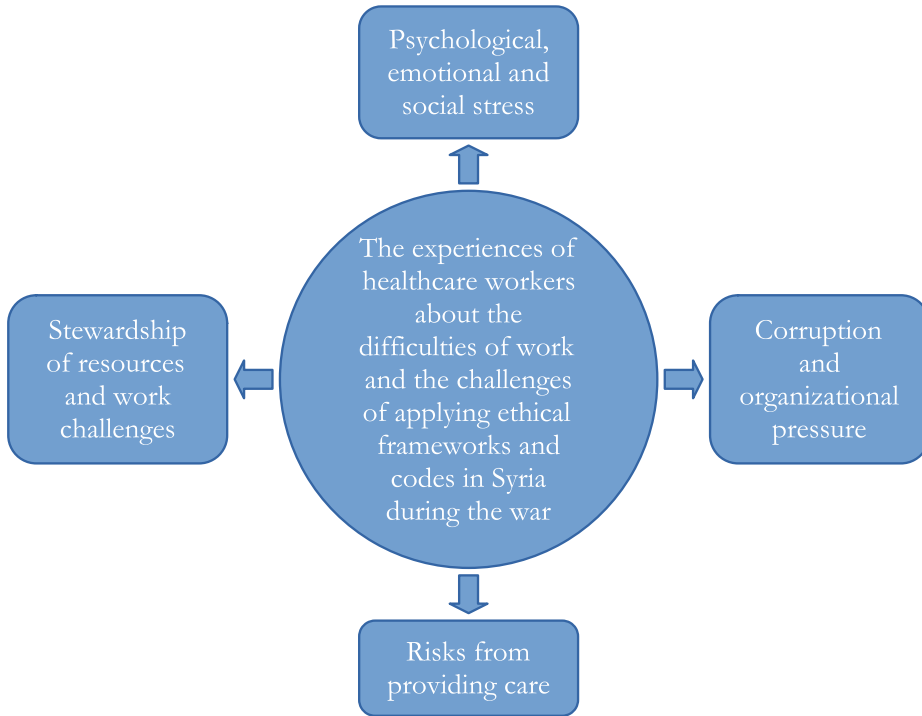


Figure 7. The main category A and its sub-categories

Table 8. The sub-categories and codes of main category A		
	Sub-categories	Codes
4.3.1	<b>Risks from providing care</b>	1 Attacks on medical facilities and threats to healthcare workers 2 Lack of protection for healthcare facilities 3 Balancing duty to care and commitment to humanity with personal risks
4.3.2	<b>Stewardship of resources and work challenges</b>	1 Lack of resources 2 Working outside one's scope of practice 3 Unqualified persons working in the health field 4 Work overload and employment rights 5 The spread of epidemic diseases 6 Expired medicines 7 Caring for non-war patients and vulnerable groups 8 Lack of training in disaster ethics 9 Justice, fairness, priority, and triage 10 Neutrality, equality, and non-discrimination

4.3.3	<b>Corruption and organizational pressure</b>	1 Corruption within the society
		2 Favoritism and negligence
		3 Lack of authority and accountability
		4 Lack of monitoring and management
		5 Lack of coordination and communication between health organizations themselves and between them and their healthcare workers
		6 External agendas of health and humanitarian organizations
		7 Health organizations: Multiple ethical frameworks
		8 Transparency, fidelity, and truth-telling
4.3.4	<b>Psychological, emotional, and social stress</b>	1 Feelings of Syrian healthcare workers during the war
		2 Solidarity
		3 Islamic ethics and community customs
		4 Privacy

### 4.3.1 Risks from providing care

#### 4.3.1.1 *Attacks on medical facilities and threats to healthcare workers*

Participants shared several stories and incidents describing attacks that targeted them and their workplaces, and because these attacks were repetitive, it made their working conditions extremely dangerous and challenging. One participant (M50, DOC), a 50-year-old doctor serving as the director of a medical complex in Syria, shared that since the beginning of the Syrian revolution, he has provided emergency services on the frontlines of the conflict. One of the first difficulties he and his colleagues faced as field doctors was that warplanes targeted medical facilities, such as hospitals, clinics, medical centers, and even ambulances. This direct targeting created a major ethical challenge for paramedics, medical, and humanitarian organizations working on the ground between providing medical and emergency services to the injured and the personal safety of paramedics. M50, DOC stated that he and his team experienced the most difficult of these situations when warplanes targeted them while they transported wounded and sick civilians:

*“In one of the missions, workers in medical organizations went to rescue women and children who were forcibly displaced from the southern countryside of Hama after the Syrian regime and its militias bombed the infrastructure ... these were displaced in a desert area ... so we headed to an area called Zero Zone, where we were allowed to pass through. At the time, the medical staff ... consisted of a doctor, the head of the ambulatory mobile clinic, a nurse, a driver, a pharmacist, and a midwife. When we reached the area, we found 180 women and children. We provided first aid under the heavy bombardment from aircraft machine guns. They were watching us in Zero Zone. When we went out to the hospital in the liberated areas in the north, the warplane targeted us. This warplane started bombing*

*our car ... the driver was terrified, and we were afraid. Our work was medical and humanitarian, yet we were bombed in three areas and miraculously survived by God's protection. However, the car was hit by shrapnel. This shrapnel hit the sides of the car and the rear window. Praise be to Allah! We're alive!" (M50, DOC)*

According to the participants, attacks on medical facilities constituted the greatest challenge to the work of medical personnel in Syria:

*"Medical centers were the first target of the bombing. This is without exception for any small medical center, hospital, or private clinic. This was the most worrying and a very frightening issue for all the medical staff since the beginning of the Syrian revolution until now." (M49, DOC)*

The participants expressed their suffering as a result of having to evacuate or change their places several times due to the shelling and destruction of the medical facilities and centers in which they were working:

*"Our center was bombed twice in Syria. More than once, we were forced to evacuate the center ... recently the fighting was near the center building and the staff were trapped for three days. Then they managed to escape. The circumstances were dangerous." (M44, DOC)*

*"I worked in about seven to nine hospitals. We had to move from one hospital to another because of the bombing and destruction of the hospitals in which we worked. The bombing turned the hospitals into rubble." (M50, ANE)*

The participants described direct, deliberate, and systematic bombing of their medical centers:

*"I worked in field hospitals close to the battlefronts. So, we were subject to heavy bombardment ... Russian and Syrian warplanes regularly target hospitals, health centers, and ambulances. Therefore, we were always at risk. We were bombed directly. It was a direct targeting, not at random. All hospitals were bombed. The attack was systematic." (M46, DOC)*

Even placing a Red Cross or Red Crescent flag over medical centers did not help protect these buildings from bombing:

*"The main problem we suffer is that hospitals are the number one target ... we know that in the event of war, they put the flag of the Red Cross or Red Crescent on the roof of the hospital so as not to be bombed by warplanes. In our case, on the contrary, any place with a hospital is considered the primary target of the bombing of warplanes ... honestly; this is the main issue that scares us." (M56, DOC)*

In some cases, the targeting was carried out by placing car bombs next to health facilities.

*“A car bomb exploded next to the hospital where I was a director, causing destruction to the hospital. The hospital was in a residential area, so the explosion caused many casualties from civilians and children.” (M56, DOC)*

Healthcare workers also reported that they were subjected to chemical bombardment that caused injuries rendering them unable to work:

*“It’s a difficult situation, for example, once, warplanes used chlorine in the bombing, and we lost two workers due to chlorine poisoning.” (M32, NUR)*

The attacks also affected ambulances and emergency workers, making transportation of the injured and sick to medical centers a problematic and dangerous task:

*“The first difficulty we faced as field doctors working in ambulances in crisis areas was the lack of mercy towards medical facilities ... and ambulances. Rather, it was one of the plans of this criminality to bomb medical and educational facilities ... on the other hand, we went through many situations where we were on the verge of death. The warplanes targeted us while we were transporting the wounded and the sick in the targeted civilian areas. This is also an important issue concerning the ethics of paramedics.” (M50, DOC)*

Targeting medical facilities and the heightened threat to their personal safety increased the psychological pressure among healthcare workers, leading them to experience hard and unforgettable moments:

*“The hospital for which I was directly responsible was bombed. Once, I was watching the warplane, I was a bit far, then the plane bombed the hospital. This was one of the hardest moments you’d see here when a hospital was bombed with its full medical staff in it. You do not know the extent of the damage. Are the medical staff, the visitors ... and the patients still alive?” (M39, NUR)*

Participants spoke of continually demanding personal protection for medical and humanitarian workers and the neutralization of their medical centers to protect them from the conflict; still, they reached a stage of frustration as their calls were not heard and were unsuccessful:

*“The main thing that we demanded and did not get is personal safety. You are working as a humanitarian worker. There need to be protection for you and guarantees that you will not be targeted. Unfortunately, this did not happen. On the contrary, for example, two months ago, warplanes and helicopters targeted 20 medical facilities in the Hama countryside. Three days ago, an ambulance was targeted and three paramedics were killed.” (M39, NUR)*

Direct and repeated targeting resulted in a loss of a sense of personal safety:

*“You must forget the issue of personal safety. In areas out of the Assad regime’s control, there is no personal safety. Since you are basically in a medical facility that is targeted by the bombing. My hospital was bombed twice when we were in the operating room.” (M29, DOC)*

In addition to the various attacks on medical centers and facilities, participants described being exposed to direct threats. Among these threats was the danger of passing through military checkpoints and possibly being arrested or killed:

*“Sometimes we had to go through the Assad regime checkpoints, knowing that they might be looking for you. Nonetheless, you ask God to protect you. This was the most horrifying experience.” (M44, DOC)*

*“Most of the military checkpoints were notorious, and they pressured us and tried to prevent us from food and drink and everything.” (M50, DOC)*

One participant (M27, NUR), a twenty-seven-year-old nurse, worked during his studies and after graduation as an emergency nurse in a field hospital outside the regime’s control. He worked in these areas due to the urgent need for medical personnel. While working there, he was arrested by the Syrian regime forces and imprisoned for two years for providing nursing care to the revolutionaries. After his release from prison, he worked in the emergency department again, with the civil defense and with in-field hospitals’ intensive care units outside the regime-controlled areas. The participant talked about his experiences during the prison period, his suffering with prisoners, and the diseases they were exposed to:

*“There were strange diseases in prison. The prisoners knew that I was a nurse and that I was arrested in a field hospital ... so they turned to me for help despite the grave danger that could result from asking for help ... of course, there is nothing to help with in prison. Moreover, there is hardly any life. I mean, the place is not fit to live in, in every sense of the word. For every three prisoners, there are only thirty square centimeters of space to sit. This space is your home and your place. There was a disease that was unknown to me. Some dermatologists who visited the prison diagnosed it, but I forgot what they called it. Six months after entering prison, scales like fish skin appear on the victim’s body. Then large cracks occur in the skin. The prisoners repeatedly asked me what to do with the abscess. Sometimes the crack was so wide that the palm of my hand could go into the place of the abscess and between the muscles ... once a prisoner bothered me a lot with his questions about how to deal with the abscess, so I told him to ask someone to urinate on it. I could not find any other sterilizer, nor water ... I do not think there has been such an abscess throughout the ages ... that was about a quarter of the body. I had never seen this before ... death is easy and lack of food is easy compared to what we’ve lived through. I accept everything except this prison.” (M27, NUR)*

Another participant (M50, DOC) is a 50-year-old general practitioner who has worked in Syria since 2011. His city was mainly under rebel control, but there were often incursions by Assad regime forces. He primarily works in the emergency department. The participant described that he and his colleagues constantly worry they could be accused of providing their medical services to the rebels. He shared a particularly harrowing experience during the regime forces’ first attack on his city where they tried to force him to speak to the media. Here, the participant felt that the



regime forces, who demanded that he lie to journalists, were forcing him to do something he did not want to do as a way to achieve the authorities' goals, placing him in a moral challenge between his duty to be honest and his personal safety:

*"When the first attack on the city took place, we were in the hospital, but we preferred to leave ... we were afraid that the troops would enter the hospital and kill everyone inside. But they came to me and told me that there were injuries, and they wanted me to examine them ... I went with them thinking they wanted to arrest me. But they told me not to be afraid and that I was safe ... three brothers were shot dead in the hospital ... when the wounded were in the emergency room, a media group came... the military officer asked me to talk to them ... but I was very embarrassed. I said, 'what do I say?' He told me, 'say that there were terrorist gangs who hit these wounded people with axes on their heads and killed them' ... I told him that I was not authorized to make any statements, neither to the journalist nor to anyone else, and that he should look for a forensic doctor ... we never had a forensic doctor. I was very upset, and even if he wanted to bully me, I wouldn't say anything because he wanted me to lie ... he looked at me annoyed, wanting to humiliate me, but said, 'well, that's not a problem'. Then he shouted out loud, 'bring someone to stand in front of the journalists and make a video with them while saying what we want'. Here I tried to stay away from them because I was afraid that they would ask the army to arrest me or do something ... honestly, I tried to handle the situation wisely so as not to get into trouble." (M50, DOC)*

The threats were confined to healthcare workers and their families, which placed them in complex challenges:

*"Working in Syria was a burden and a huge risk. Your life and your family were always in danger. My wife used to go back and forth between here and Damascus. Therefore, I was afraid for her as she was by my side. Although she had nothing to do directly with what I was doing." (M31, DOC)*

*"Personally, the most difficult thing for me is staying under bombardment and clashes. I was worried about my family. I tried to move them to a safe place, but every new place was worse than before ... out of the frying pan, into the fire ... having to transport my family to safety was the hardest and worst." (M47, DOC)*

The participants described several accusations from different political or military parties, often due to the healthcare worker treating a patient or injured person those parties considered hostile:

*"They interrogated me and accused me of treating the rebels, not the soldiers of the regime. At that time, it was Ramadan and the atmosphere was very bad. Furthermore, they wanted to arrest me. But I tried to be as wise as possible, and proved to them that that accusation was wrong." (M50, DOC)*

*"We were providing services regardless of affiliation and regardless of differences between military factions. Sometimes we were in difficult situations and were left confused. For*

*example, if we helped an injured person from a certain military faction, we could encounter problems or harm from another military faction. This was one of the issues that bothered us so much.” (M32, NUR)*

Kidnapping is yet another threat to healthcare workers in Syria:

*“I used to live in the western countryside of Aleppo, and my workplace was in northern Syria, near the border. There, as you know, kidnapping was very common ... I was susceptible to being kidnapped at any moment during my travels. This was dangerous.” (F34, NUR)*

The participants also shared personal threats they received when they did not adhere to specific instructions imposed on people in those areas and during the control of some armed groups:

*“During the period when the Islamic State was here, they regularly used to come to the medical center, and always imposed their power. For example, workers who do not grow their beards would be seriously threatened. If we were smoking, too. But despite this, some of them would return to us from the battlefield, and we used to serve them and forget about all those things, including ... the way they had treated us.” (M32, NUR)*

The frustration and tension of the victims’ families (resulting from the lack of treatment possibilities to the war-related horrors they have lived through) prompted them to direct their anger on the health staff members and sometimes threaten them:

*“The main problem that was causing a lot of stress was the repeated attacks on us by the patients’ families. You had to accept this because you could not imagine the pain of a father who could not find an antipyretic drug for his son. The issue is that you were not the reason behind the shortage of medicines. But the father would be in an unenviable state. He had to release his anger and found no one in front of him but you.” (M29, DOC)*

*“We faced difficult situations with needy people who spoke to us with a harsh tone. But they are needy, and you have to work in the medical and humanitarian field to bear with them.” (M39, NUR)*

#### 4.3.1.2 Lack of protection for healthcare facilities

In this sub-category code, participants expressed profound anger and disappointment that medical facilities were bombed and destroyed despite the United Nations’ prior knowledge of their locations. They stated that no firm measures were taken to stop the attacks and protect healthcare workers despite sharing previously-hidden locations of discreet medical centers with the United Nations to spare them from bombing. As a result, these centers were bombed and destroyed with precision:

*“The hospitals that have been targeted lately are the ones whose locations had been given to the United Nations so they wouldn’t get bombed. Nonetheless, they have been directly*

*bombed ... according to most confirmed sources. Because the targeting of the hospitals was very accurate.” (M32, NUR)*

*“Two to three years ago, news leaked to us that the United Nations had given the locations of our hospitals to Russia so as not to bomb them. The opposite happened. You can confirm this by going to the hospitals’ websites that have recently been targeted.” (M50, ANE)*

One of the participants who worked with the United Nations explained that even he was not safe in his work:

*“Now in my current work, even though I am working for an international organization and the UN but yet we are not on the safe side. Because we are approaching camps in northern Syria which is not 100% safe. And explosions are here and there every second day.” (M41, NUR)*

Here, participants expressed confusion and frustration about the lack of protection and the violence against medical facilities that was permitted despite international agreements which the United Nations sponsor:

*“Why are medical centers, hospitals, and infrastructures bombed by a criminal who, in 1949, signed the international law regarding the protection of medical facilities! Yet no one did anything! ... Where in the world did this happen! ... how does the war start with the bombing of hospitals, clinics, medical systems, and ambulances, which is prohibited by the Geneva laws! ... there is an unjust silence on the part of the United Nations and the humanitarian and medical organizations.” (M50, DOC)*

#### 4.3.1.3 *Balancing duty to care and commitment to humanity with personal risks*

Balancing healthcare workers’ duties with personal risks associated with their work was one of the most critical challenges cited by participants. Abandoning patients by leaving their workplaces was a way to secure their personal safety presents a difficult moral dilemma for healthcare workers in Syria. The pivotal question remains: What is the degree of risk that must be considered before deciding to abandon the duty to care?

*“Among the values that were at stake was balancing the safety of the paramedics, in other words, the safety of the doctor. I always used to wonder, while performing my service, whether I was in a safe place or not ... once, I was operating, and they told me that the warplanes were all over us! It’s a mental struggle between leaving the patient and proceeding with the treatment. You can call it a sacrifice. Among the challenges was having the courage to continue the operation. But in reality, those were unforgettable moments.” (M49, DOC)*

*“Frankly, when the bombing starts and an incident happens to you ... I am telling you about all the medical workers, there is no morality here and every person follows the principle, ‘oh God, I ask you to save me, only me (everyone only cares about himself)’. Moreover, the doctor blames himself, saying, ‘why did I put myself in such a situation, and why did I*

*not flee!’ The doctor also says, ‘blame it not on them, but on me, because I stayed in this place.’” (F32, PHA)*

One of the most painful experiences shared by the participants is when healthcare and humanitarian workers must give up the care of the injured and sick due to the dangerous conditions on the ground:

*“The number of people needing care was huge. We often left people unattended either because we had to get out of the area for security reasons and problems or because we ran out of time. Unfortunately, we sometimes had to leave a patient in urgent need of health care. Of course, we are compelled to do this. We must follow the instructions. Because failure to comply with the instructions affects, firstly, getting the security approval to provide the service there, and secondly, this threatens the mission itself ... we may then be subject to legal accountability.” (M36, NUR)*

*“Sometimes we saw the wounded in front of us, but we couldn’t do anything because they were in dangerous places; we couldn’t get close to them at all. We were trying, as much as possible, to secure our protection because it is more important than protecting the injured, and we used to work on this basis. Even if the victim were in front of me, I couldn’t help him because that would threaten my life.” (M25, NUR)*

The decisions of healthcare workers in meeting the challenge of ensuring personal safety under hazardous working conditions were sometimes met with resentment and complaints by patients and their companions:

*“There was a patient who had a direct heart injury ... the surgeon opened his chest ... he told me, ‘look, there are some remains of a heart’ ... at this time, the alarm went off. We ignored it and started sewing the wound. Then a worker came and told us that we should evacuate ... perhaps the warplane got the hospital location and has now returned to bomb it. At that moment, we had just done a simple suturing of the wound because the person was dead. In order not to leave the wound open. Then we headed to the safe zone. At this point, someone seems to have seen us as we were leaving the operating room. He was accompanying the patient. He opened the curtain in the operation room and saw that there was a person on the operating table, no one with him, and blood everywhere. This someone kind of collapsed ... I told him that we were not the cause of the other person’s death, but that he was already dead, and his heart was torn. We had to leave him like this because a warplane was hovering over us. So that we can survive and be able to help other people. In the end, I felt like he showed me he was convinced, but that, on the inside, he was not.” (M29, NUR)*

During exceptional circumstances, healthcare workers would decide to split into two teams, one leaving the medical centers for the field and the other staying to treat patients despite the danger:

*“We had four casualties and, at the same time, there were two warplanes hovering over us. One of them was a helicopter. We received a radar call telling us that our medical center...a*

*target of warplanes. At that time, the warplanes used explosive containers. The explosive container could destroy an entire building ... some of the staff were evacuated at our request. We told them to go in an ambulance. We stayed to treat the wounded. Warplanes bombed our medical center, and the bomb was only 50 meters away.” (M32, NUR)*

Some participants believed they had to pursue their work despite personal and family risks. Their professional, religious, humanitarian, and moral duties, according to their definition, motivated them to sacrifice:

*“You, as a doctor, should try your best to help. Regardless of the harm done to me or, for example, to my family. I was newly married, and my wife was pregnant. You have to imagine that you’re leaving your wife and going on with your profession. You sacrifice your soul and risk your family. Your child may become an orphan. However, when you look at the martyr, you do not back down, but rather say that you are no better than he is. This is one of the things ... even if you were a doctor ... that makes you look fair. You have to value people the way you value yourself, and vice versa.” (M31, DOC)*

*“There is an important issue for ethics in this field: a doctor who sees what happens to these unarmed people may sometimes forget himself as a doctor. When he comes to the scene and participates in rescuing dozens of dead children, women, and the elderly, if he has no will, he will retreat due to the bombing. The lives of many doctors, medical staff, and civil defense volunteers have been lost ... yes, every organization asks its workers not to put themselves at risk and to adhere to a certain ethical and humanitarian framework ... sometimes we risk our lives and die ... sometimes we lack the training, qualifications, and the way to protect ourselves from the evil of bombing and killing, but we offer everything that the word “ethics” can mean.” (M50, DOC)*

*“Even sometimes, there is a principle that we did not follow: personal safety. They have always taught us that the safety of the first aid worker comes first. However, sometimes we took risks as I told you. We did not leave because of the bombing, or we were advancing to areas that were under bombardment.” (M32, NUR)*

*“These wounded ... your task is to help them and save their lives after the Lord of the worlds (Allah). You cannot leave. When I came to the hospital I saw military checkpoints on the road, and there was shelling. However, my work starts at this time and I cannot go home or go to the shelter. I have to go to the hospital to help people. I’m a human. If I don’t help them, who will! If you wanted to escape from the hospital during the bombing, no one would stay in the hospital. What is the purpose of the hospital then! We opened the hospital and gave our lives ... the medical staff, in general, are familiar with this issue and are dedicated. When the injured come, the medical staff don’t think about themselves.” (M50, ANE)*

One of the participants expressed sadness for leaving his duty to care and Syria. Still, his escape was not because of the bombing but rather the injustice that he experienced as well as the deteriorating moral situation in the country. The

participant considered his medical service during the war to be a revolutionary duty and obligation:

*“It is your duty as a human being to help people when the bombing starts, regardless of whether you are a doctor or not. But what if you were a doctor! You can help them and heal their wounds. Even if you can do a simple thing for them. This is complementary to the purpose for which we made a revolution. As it was said, we walked down a path and we had to go through it to the end. We have to perform good deeds to the fullest. However, one of the things that forced me to leave is the injustice between people. You cannot control it. You can stand somewhat against the injustice of the regime and take a position as a human being or as a doctor, and you can help people who have been wronged. But, there is another type of injustice. This other type is represented by the tragic moral situation in the country, and this situation is very tiring.” (M31, DOC)*

Many participants connected their work to the importance of humanity. For them, humanity means helping, treating, and standing beside the injured and sick and willing to bear the hardships and dangers of war. However, achieving this human aspect of their duties created ethical dilemmas when trying to maintain the personal safety, which must be primary during the war:

*“If there were an injured person in a house next to you, and, at the same time, there was shooting from the army checkpoint, then you could not send an ambulance to rescue him. Because they would target the ambulance ... you would feel here that you are abandoning the principle of humanity, but you cannot sacrifice another human being in order to save a man who may have died. I cannot send paramedics to die too.” (M50, DOC)*

Participants also stated that the military forces controlling the ground often do not respect healthcare workers’ humanitarian mission and therefore do not accept their obligation to treat injured people from the other side. This created additional difficulties and challenges during their work, resulting in a profound dilemma: Should they listen to the authorities and refrain from treating the victims of the other side, thereby abandoning humanity, or do they continue to treat these people thus risk getting into trouble with the authorities?

*“If a wounded from the other side came to you for treatment ... this would be sometimes difficult. You as a doctor have a humanitarian mission to treat any casualty that comes to you. Yet, you will be pressured by people around you, telling you that this wounded is a dog and a despicable enemy ... often, as a physician, you are subject to the will of the controlling authority. By gun threat, a doctor must treat someone or not. Sometimes, he has to leave everything and start treating somebody. You must acquiesce to this condition. Otherwise, your center will be closed, and the community will lose your services.” (M44, DOC)*

*“The healthcare professionals were always accused without any evidence. They were accused because of their humanitarian intent. Because they are serving other groups. Everyone can point at you that you are supporting other groups and helping injured people. It looks like something bad. It is bad. It was bad as every group banding you from helping other groups.*

*Right! Especially the government. I was accused and I went through investigation also that I am supporting or helping injured people from the opposite side.” (M41, NUR)*

*“The second problem for me as a doctor was the pressure we were facing from more than one side to move with them and work according to their wishes. They do not accept that you, as a doctor, have a humanitarian mission. They neither accepted it nor understood it. Almost, the majority were so.” (M47, DOC)*

Some healthcare workers preferred to continue working and adhere to their humanitarian duty despite personal risks:

*“Our profession is humanitarian and requires us to be in dangerous places. So we had to. The shelling and danger did not deter us from treating the casualties and wounded. We were doing our duty to the fullest. This was done with the protection of the Lord of the Worlds (Allah).” (M46, DOC)*

### 4.3.2 Stewardship of resources and work challenges

#### 4.3.2.1 Lack of resources

Many participants described a severe shortage of doctors, consultant physicians, specialists, and anesthetists, which disrupted many medical services:

*“For the volunteer doctors, the situation was very good and well recognized by the people ... as if they were going to build us statues in our honor ... because doctors were like rare coins there.” (M49, DOC)*

*“Of course, eye removal requires also consultants, and this is not available in our time of war. That’s why you are always arguing with yourself.” (M44, DOC)*

*“There were only two female gynecologists and six midwives. That number is too small for 1.5 million people. We had Caesarean sections and gynecological operations in very difficult conditions. On some days, there was no electricity, and on other days, there were massacres at the same time while we were working in the operating room.” (M49, DOC)*

*“The anesthetics we had were very few or often not available.” (M29, DOC)*

The participants’ significant lack of resources included essential medicines, painkillers, intravenous fluids, and vaccines:

*“Some of the needed medicines were not available most of the time. Such as decongestants and antipyretics.” (M29, DOC)*

*“In the beginning, resources were scarce and it was difficult to get Declon injection, painkiller, or tramadol because of the blockade and the state of war.” (M31, DOC)*

*“I’ve been working there for five years, and I don’t remember IV fluids being replaced at half the normal amount patients really need.” (M29, DOC)*

*“During our work, there were basically no vaccines. Our area was besieged.” (M29, DOC)*

According to the participants, the lack of necessary medicines during chemical attacks has also complicated the situation:

*“We often do not have the necessary medicines in case of bombardment with toxic substances such as chlorine and phosphorous. We’ve seen suffocation incidents.” (M50, DOC)*

The participants emphasized that the colossal shortage of resources was prominent in the early years of the revolution, especially in areas besieged by the Assad regime which prevented deliveries of medicines and medical supplies:

*“At the beginning of 2013, our city was also bombed ... at that time, our equipment was simple. Imagine, I was going to help the wounded, I was carrying a bag of first aid kits, and I couldn’t do much.” (M31, DOC)*

*“We faced such difficulties, especially at the beginning of the war. There was no support. We had to operate some surgeries without a ventilator. We manually administered oxygen through an Ambu bag (hand-breathing bag). These are primitive tools, and they are insufficient in the case of surgical procedures. Surgery can sometimes be serious and prolonged. But there was no other solution. We had to perform these operations in order to save the lives of the injured, using very scarce tools and capacities.” (M46, DOC)*

*“This was a big challenge for us, especially at the beginning of the revolution. Blood transfusion was very disastrous ... sometimes we had to transfer blood from a donor to a patient directly. Imagine that we had no blood collection bags and no blood bank labs. We transferred blood from one person to another directly.” (M49, DOC)*

Participants described that one of the challenges often faced by healthcare workers is the influx of injuries against the limited availability of equipment and capacities, which presents workers with difficult choices and significant psychological pressures:

*“You often have many wounded and one operating room.” (M46, DOC)*

*“Some of the arrivals die there because our initial treatment and management of them were bad because ... for example, a patient needs a thoracentesis, and we have no tools to do that.” (M47, DOC)*

*“We’ve come to a point ... a state where we’re sometimes unable to work and don’t know what to do. There were a large number of people slung to the ground because there were no more beds ... at the same time, the number of doctors was very, very small. Your experience as a nurse is limited in dealing with these conditions ... for example, this person needs a thoracentesis ... we have tried to work according to global protocols. But how do you deal with a person who needs thoracentesis while the doctor is busy in the operating room! So I asked myself ‘should I do that or not!’ Sometimes you are subject to these pressures.” (M29, NUR)*



*“These difficult situations were daily because the work was in besieged areas ... we had a problem with the scarcity of resources. How to use them and divide them and how to make the decision. We had to make such a decision daily ... that was annoying and painful.”* (M29, DOC)

*“There were doctors who worked on the triage. But the scarcity of resources costs us a high price. It is one of the causes of psychological pressure on the medical staff. Because the problem could have been solved by using a simple device and a simple procedure. But you don’t have this simple procedure, and the resources are not available. There are so many words to say!”* (M47, DOC)

*“Some drugs were not available, especially chronic disease drugs ... an old man comes to you, and he cries in front of you ... there is no medicine and what he needs is just medicine. His health is ailing. What can you do to him! There is nothing in your hand. This thing is downright painful and affects us very, very, very, very much. This is too stressful that it was necessary for the worker to get breaks for a few days until he is relaxed a little, and so that he could maintain his psychological and physical health conditions properly.”* (M36, NUR)

*“The concern was that you were dealing with a medical condition, in some cases, it could be very complex, and you wouldn’t have the initial capacities for treatment. You have to work under such circumstances! This issue had a huge impact on the personal and public levels. You see the person dying in your hands. And you are unable to give him anything.”* (M27, NUR)

The participants also described a lack of resources and capabilities for secondary and rehabilitation care:

*“In general, the numbers needed for prosthetics are far greater than our potential. We have a shortage of technicians. Of course, we have a huge project for Syria. But the numbers far outweigh our current coverage.”* (M30, PRO)

*“Of course, here in the liberated areas, they focus on two parts, pre-hospital and in-hospital care. They do not care much about the post-hospital and rehabilitation phase.”* (F34, NUR)

Decision-making was exceptionally difficult for participants, and when decisions were formed on the basis of distributing scarce resources, those decisions were often painful:

*“The problem was in the decisions resulting from the scarcity of resources. For example, if you had a newborn, you might decide that he would not get an incubator. If he got one, it would consume a lot of fuel because a generator would have to be turned on permanently. That is what we cannot provide. These kinds of decisions were inherent to our scarce resources.”* (M29, DOC)

The families of the injured sometimes blamed participants for the lack of resources:

*“There was a shortage of equipment in the emergency room, and that has negatively affected us. For example, when we try to change the bandage for an injured person or try to rescue him, even at the location of the incident, we find that the equipment is incomplete. That thing has negatively affected the injured, his family, and us too. So, the family of the injured person blames us as paramedics.” (M25, NUR)*

Participants described having to sometimes purchase medical materials at their own expense:

*“We have a shortage of resources. For example, we sometimes have to pay or donate the money ourselves, so we can buy equipment. This means that simple things were sometimes not available, such as syringes or surgical instruments. The medical staff needs food, and this is also not available.” (M50, ANE)*

The lack of resources also prompted participants to invent simple alternative devices or provide experimental care to meet the need:

*“Lack of resources ... it was one of the things that got us in trouble. Sometimes healthcare workers were completely helpless. Because the patient or the injured is in front of you and you are unable to deal with him because of the lack of resources. Let me tell you. I once performed chest thoracentesis by a hookah hose ... there was no other solution.” (M25, NUR)*

*“The scarcity of materials is a major problem. I will give you an example. It was very difficult for intravenous fluids to reach besieged areas, especially to field hospitals. For example, you know, in the abdominal opening surgery, when the surgeon finishes the operation, he flushes the wound with four to five liters of normal saline. We used to replace the standard normal saline with a handmade normal saline. We made it with our own hands ... at one point, there was no electricity to operate the sterilizers, so I sterilized surgical instruments by burning. We were using fire. We put alcohol on the equipment and lit a fire for a certain amount of time, so that we could use it again. We used to invent abdominal puncture devices.” (M27, NUR)*

*“We sometimes have to do medical adventures and rely on our medical expertise and humanitarian will. We conduct our humanitarian operations until the patient reaches the hospital or emergency center so that we can provide care to him.” (M50, DOC)*

The lack of capabilities and resources resulted in participants transferring critical-condition patients to hospitals in other regions, but the difficulty and severity of movement of patients in this type of condition led to many patients' death:

*“Our capacity was very limited. Sometimes we had to transfer the patient to a distance of 120 to 200 km. Many of the injured, classified as priority, died halfway during the transport.” (M47, DOC)*

Lack of resources and capabilities was cited as an obstacle to applying ethical standards and health policies:

*"We have taken many courses. Like the SPHERE program which is known for international standards of humanitarian action. Frankly, the standard has not been fully implemented because your capacities fall short of requirements. Whether it is within the financial capacities as funds, or the capacities in human resources and its availability. Sometimes the resources are not available or are so deficient that you cannot apply the standards you have in mind or for which you have been trained. There is difficulty in the application. This criterion is currently not being fully implemented." (M39, NUR)*

#### 4.3.2.2 Working outside one's scope of practice

According to the participants, a major problem they experienced was the shortage of personnel from specific medical specialties, leading some doctors to perform treatments and surgeries outside their specialty:

*"A child was brought to us at two o'clock at night, and he was only four years old ... the child was suffering from a broken thigh and a cut in the artery. There was no vascular surgeon at the hospital. We only had a gynecologist, a surgeon, and a urologist. The orthopedic doctor was forced to perform the surgery and connect the artery so as not to have to amputate the limb and then send the child to another hospital to continue treatment." (M50, ANE)*

Non-clinical volunteers tried to help healthcare workers bridge the specialist gap, but their lack of technical and medical training failed to contribute to the specialist shortage:

*"There was a severe shortage of specialists. Volunteers, of course, may God reward them, have indeed such a big role that they have replaced other missing healthcare workers. But they do not have a scientific background to distinguish between right and wrong or between medical work and nursing work." (M32, NUR)*

#### 4.3.2.3 Unqualified persons working in the health field

Participants recalled unqualified, untrained, or unskilled persons working in the hospitals due to the severe shortage of healthcare workers and medical specialists. This lack of experience and competence negatively affected the participants' and other healthcare workers as well as the quality of health services provided:

*"Some people also worked in the medical field for the purpose of providing assistance ... such as working as nurses ... but they had nothing to do with the medical field. This had a negative effect later on." (M31, DOC)*

*"If we talk in general, as a health sector, there are a lot of violations. I mean, for example, there are incompetent individuals who have applied for jobs beyond their capabilities. For*

*example, an ordinary person would pretend to be a paramedic. This happened a lot.”* (M49, DOC)

*“They only hire those who have nursing experience but do not have a nursing degree from an institute, school, or university. This of course greatly affects the quality of health services.”* (F34, NUR)

The participants also described individuals with various non-scientific educational backgrounds, such as humanities or economics, who joined the health sector as nurses after receiving short, possibly days-long training. Financial needs, the lack of job opportunities during the war, and the prospect of being forced to carry arms were motivations for individuals to apply for healthcare roles:

*“There was no full medical team. The medical team consisted mostly of volunteers, not doctors. For example, the nursing teams did not actually consist of nurses but rather of students from other professions ... economics, humanities ... who have learned quickly, in two days, and then volunteered to work. They also wanted to have a job for a living with some NGO, on an amount of 200, 300, or 400 dollars, as there were no other opportunities, or you must carry weapons and fight.”* (M49, DOC)

Participants also reported frequent medical errors by untrained workers, such as volunteers giving medicines and prescribing and dispensing treatments without supervision and qualifications:

*“The medical errors were very frequent. For example, we trained volunteers to work as paramedics. As a paramedic, you are not supposed to deal with drugs and treatment. After a year, for example, the volunteer would tell you that he could do anesthesia, that he knows more than a doctor does, and that he is better than a doctor who stayed with the Assad regime and did not join in here. He would begin to dispense drugs and to give injections.”* (M32, NUR)

#### 4.3.2.4 Work overload and employment rights

The lack of resources increased both work pressures and the number of working hours for participants, who described working for long periods of time to compensate for the severe staff shortage:

*“There were times when we had to work seven days in a row. Because no worker from outside the city could come and take our place. The health staff that were in the city became responsible for the whole work. If there were a radiologist in town, a lab worker, or a doctor, they should show up to work. As for the doctors, there were only my colleague and me. There was one radiologist and one technician in the laboratory. The rest of the workers were outside the city and could not come because of the bombing and road closures.”* (M50, DOC)

Participants increasingly suffered from these working conditions and were not provided additional financial compensation or alternatives:

*“But what made me struggled there were the working hours. The working hours were very tiring. Sometimes a person had to do the work of two or three doctors at once. Sometimes you had to work for a week or two without additional compensation. Because there is no alternative either. We were often working twice as usual. Our shifts were usually 12 days a month, but we worked 22 or 23 days a month.” (M50, DOC)*

Participants also reported the occurrence of medical errors due to the stressful working environment that made it challenging to adhere to standards of care and treatment:

*“A pregnant woman, aged 30 or younger, was brought to us. She needed lumbar anesthesia for cesarean delivery. The anesthesia technician was one of the best workers. He was 60 years old and had more than 30 years of experience. Instead of giving lidocaine, he gave another medicine, and this medication causes numbness in the nervous system ... the newborn was born without problems. But the woman was placed on a ventilator and then died. She died because of no other thing ... the woman was not at any risk, and she had no previous illnesses. But the cause of death is pressure and stress. When there is too much pressure on the hospital, I will not be able to adhere to the standards that I myself have set. This point should be taken into consideration.” (M29, NUR)*

Participants expressed their dissatisfaction with the overwhelming absence of employment rights, which put them into the dilemma of performing duties in exchange for minimum rights or, in some cases, none at all. These rights included health insurance, setting limited working hours, workers' compensation, and appropriate salaries:

*“Rights! We did not have rights, but there were duties only.” (M47, DOC)*

*“As for rights, there are no rights for organizations and workers in Syria. In Syria, I don't think someone is providing health insurance, social insurance, or end-of-service compensation.” (M44, DOC)*

*“As for the salaries, this was also a negative concern for us, and it was not given to us properly.” (M25, NUR)*

*“I can mention the issue of salaries. They must give us our rights on time because they are late to give us salaries.” (F34, NUR)*

*“Not to delay our salaries and, of course, to provide us with medications before the salaries ... working hours should be curbed. These are the rights we need.” (F32, PHA)*

Participants also described that, even if they wanted to submit formal complaints or demand better working conditions, their institutions lacked oversight bodies that could compensate and provide them with rights:

*“My rights! I am in these circumstances ... there is no longer any control over rights. Things have become a mess. For example, if I want to claim my rights, whom do I turn to! There is no official or civil body.” (M50, DOC)*

*“For us, there are no rights. There is no state. We live in a time of revolution. This revolution was subjected to war. We are now being bombed by a superpower ... where are the rights! If there is no existing state that gives you your rights! We get the rights here from the Lord of the heavens. We are waiting for God to prepare for us a state, whether in the West or the East, to adopt the rights of the oppressed in the liberated Syrian region.”* (M50, ANE)

#### 4.3.2.5 *The spread of epidemic diseases*

Some participants highlighted that the spread of infectious diseases common to war-times, including hepatitis and diarrhea, occurred in Syria due to the lack of vaccines, blood transfusions without testing, and neglecting the health and personal hygiene of the displaced:

*“The epidemiological diseases usually spread in the time of war, like cholera and hepatitis C, and that is because of the inability to test the blood. The blood transfusion was in chaos, and it happened that such diseases were spread. They draw blood from someone, and, in 3 minutes, they transfer it to the other patient.”* (M49, DOC)

*“We detected many cases of TB and fortunately they were non-active cases. So I came across a family where everyone of its members suffers from TB. From the other side, we detected cases of meningitis. It was not a big number. But the biggest problem that accompanies this influx of people is diarrhea. Adults, children, and everyone have diarrhea because the time was in winter and due to hygiene problems. I do not know maybe because of the food they were getting on the way until they arrived. They were traveling in big tracks for three days until they have arrived at the camp. So the situation on the way was not humanitarian at all. They were treated very badly through the forces of you know ... they took their money and their things and they did not allow them even to go to pass stool. You see children died on the way due to the cold.”* (M41, NUR)

#### 4.3.2.6 *Expired medicines*

The problem of tainted, compromised, and expired medical aid was described as a significant issue by participants:

*“There is also the problem of expired medicines. There are times when we received a huge aid, but it had already expired. You had to know if that particular substance or medicine was appropriate and consumable. There was great difficulty.”* (M32, PHA)

*“Those who send us expired medicines or useless medical instruments from their hospitals!”* (M50, DOC)

#### 4.3.2.7 *Caring for non-war patients and vulnerable groups*

War conditions forcibly shift attention, priority, and health care away from routine patients to war casualties and critically injured patients. However, the extreme resource scarcity, the lack of planning, or the ill-considered transition from the routine

standard of care to the crisis standard of care led to neglect of care for non-war patients and vulnerable groups such as women, children, the elderly, and the chronically ill. That created ethical challenges for healthcare workers and the way they allocate care.

*“I believe frontline healthcare workers are always faced with ethical decisions. Someone might come to you and tell you that he needs a hearing aid device because he cannot hear. But the therapist would reject him and say to him, ‘I have patients dying on my table and you want a hearing aid device now!’.” (M44, DOC)*

*“The issue of chronic diseases was neglected and less important, although it constituted a burden during that period. Older adults and middle-aged people with diabetes or high blood pressure ... suffered the most. Usually, if the patient’s diet changes, his condition will deteriorate again. What if he lived in difficult conditions where there is no food or diet! What if the patient had to eat anything available! What if his medicine is no longer available!” (M29, DOC)*

*“The priority was for critical cases (hot cases) and the war casualties. Therefore, health care was directed to emergency cases only. Some diabetics came to us at that time for treatment, but they died later on because no one cared about such diseases, there are no doctors for them, and no medicine ... some patients were brought to us with a heart infarction and died in the emergency department even though they were in their 40s.” (M49, DOC)*

**Footnote:** The Syrian women participated in the demonstrations and the revolutionary movement in Syria, albeit limited. In military terms, women’s participation was minimal and negligible. Compulsory conscription in Syria is for males only. As a result of the prevailing culture, risks, and difficulties, most fighters in revolution and war were men. Some women were inside the Kurdish Syrian Democratic Forces (one of the military parties that fought in the war), but the main force was made up of men.

Healthcare workers spoke that this negligence was greater in the first period of the war due to the abrupt shifting of the medical priority and the extreme lack of resources:

*“As for the medical priority ... most of the victims of the first period were militants and fighters. Frankly, the health staff was allocating more medical supplies to these injuries. Because people used to say that these fighters were fighting to protect us ... surely, whoever comes to you with a gunshot is more important than the one who comes and has a headache or has, say, a stomach ulcer or so on. There was a kind of excessive sympathy for these injuries. They were more humane with those who came with life-threatening injuries.” (M27, NUR)*

Field hospitals were described as primarily dedicated to treating war casualties therefore without the capacity to provide special care for vulnerable groups:

*“Vulnerable groups need special care. We do not have this thing available. We do not have the means to provide special care for children or a department for women and the elderly.” (M46, DOC)*

Women faced additional burdens and obstacles in accessing treatment due to multiple factors, such as the absence of medical specialties for women’s health, conservative communities who prefer the treating provider be female, and the marginalization of women in some camps. One participant described a severe shortage of midwives and gynecological specialties:

*“There were only two female gynecologists and six midwives. That number is too small for 1.5 million people. We had Caesarean sections and gynecological operations in very difficult conditions. On some days, there was no electricity, and on other days, there were massacres at the same time while we were working in the operating room.” (M49, DOC)*

One participant highlighted how the conservative values of the places he worked in contributed to this issue:

*“Honestly, the customs of your community or your whereabouts interfere a lot with the medical work ... we try very much to respect that. I mean, for example, when we were in the city of XXX, there were many ethnicities, and you feel that you have a little more freedom to work ... for example, if the injured person were a female, you could work with her easily. But if you were in a field hospital, and the area was conservative or a little strict, then there would be some austerity or commitment to tradition ... it happened to me on one occasion ... where they brought us a 20-year-old female patient. So I looked and found that her brothers were by her side, and that they were the ones who had rescued her. There were female nurses, so I tried to walk away and let them do the job. This was welcomed by the brothers of the injured girl.” (M27, NUR)*

One participant further described that the chaos during aid distribution for Syrian refugees led to the marginalization of women and children:

*“There was no way we could distribute aid fairly among all people. Because those who would reach us begin to jostle between people ... there are people who would try to take the place of others. Of course, the family consisted of women only, and children were unfortunately marginalized. Because men always took the place and stood in line ... we do not distribute aid 24 hours, and we do so at certain times.” (M36, NUR)*

#### 4.3.2.8 Lack of training in disaster ethics

Most participants confirmed that they had not undergone any training in disaster ethics:

*“I have never been trained in this field. We missed this thing. It was not available.” (M31, DOC)*



*"No, I did not receive any such training. But during our medical and surgical studies, we went through such subjects." (M46, DOC)*

*"No, I have not received any training." (M50, DOC)*

*"No, I didn't receive this training." (M49, DOC)*

*"No, I did not do that. It did not exist in the policy of the organization. The organization's support for employees was very poor. There were no training courses. This training is especially important in the case of war." (M25, NUR)*

*"No I did not undergo any training. Probably a colleague of mine teaches ethics in nursing. She gave only one lecture on the ethics of a registered nurse. Frankly, I have never done this." (F34, NUR)*

*"No honestly." (M27, NUR)*

*"Disaster ethics! Actually no." (M41, NUR)*

*"No!" (M29, NUR)*

*"Special training! No." (M30, PRO)*

*"No, I swear! I haven't received such training." (F32, PHA)*

*"There was no ethics training but only technical medical training. For ethics, generally, as I told you, we rely on personal morality." (M32, PHA)*

*"Training is badly needed. We would not have paid attention to this issue hadn't one of the workers said that he would act a certain way with the prisoners. This indicates a gap, but it was not visible. You cannot expect goodwill from all people. On the other hand ... those workers who do not want to treat patients coming from the other side (the enemy) or want to misbehave with them, were good workers with religion and morals. But they missed this issue because they were not informed about it. It is important to conduct and repeat training courses in this regard. Then, the good person who missed this problem in the past, and the person who is willing to change, will change." (M47, DOC)*

*"There were no courses and lectures on ethics. But we were trained and other workers were educated on how to deal with injuries in the event of disasters, and on the method of triage. We did not give them any training in ethics in particular." (M55, DOC)*

*"Where are the specialists who did enter Syria now and opened institutes to train medical personnel on the principles of ethics!" (M50, DOC)*

*"Of course, training and qualification are not enough because the time is very short." (M50, DOC)*

Participants reported that medical ethics training was neglected even during their formal education:

*“Maybe I have received some training at the Red Crescent in triage. But you can’t call that training in ethics. Even at our universities, you find that the subject of ethics is not attended by anyone, and what is discussed in the lecture is off-topic. They would bring you an old teacher to teach it, and the teacher would tell us stories during the lecture. Even at university, we did not get this proper education in ethics, and we have no idea about it.” (M29, DOC)*

A foreign volunteer doctor who worked in Syria indicated that healthcare workers lacked medical ethics experiences:

*“I am sure that if the decisions were left to the doctors inside, they would not find the best ethical decisions. Because they have no experience in medical ethics, and they cannot balance it ... it is up to the personal ethics of each doctor and what he or she has learned.” (M44, DOC)*

Workers from different professional backgrounds also lack training in medical and professional ethics:

*“There are people from other professions who work in the health sector. They have no knowledge, or no detailed knowledge, about professional ethics. In fact, that’s the case for most of us on this project.” (M30, PRO)*

#### 4.3.2.9 Justice, fairness, priority, and triage

War conditions in Syria and the resource shortages present considerable challenges for the equitable distribution of medical care and services. Participants, in recounting the problems they faced distributing scarce resources and services, described that the greatest difficulty is determining what is fair distribution. Distribution methods and decisions considered unfair face backlash and criticism from patients, which adds pressure for healthcare workers:

*“Sometimes, people with certain injuries come to you ... it can be a young active guy or a child. You can’t give them a temporary prosthetic. You must give them a prosthetic that can handle running and jumping. This is a burden on you when another patient comes to you asking, ‘why didn’t you give me the same prosthesis! That is not fair!’” (M44, DOC)*

Some participants reported that vulnerable populations, such as women and children, were most affected by the inability to achieve justice in the distribution of aid:

*“There was no way we could distribute aid fairly among all people. Because those who would reach us begin to jostle between people ... there are people who would try to take the place of others. Of course, the family consisted of women only, and children were unfortunately marginalized. Because men always took the place and stood in line ... we do not distribute aid 24 hours, and we do so at certain times.” (M36, NUR)*

Fairly allocating time spent with individual patients in the midst of a patient influx was another challenge cited by participants. In addition, they described that healthcare workers face great difficulty determining the priority of treatment:

*“The patient may need five minutes, but you will provide care in just two minutes to make room for others. Because you should know that if you have limited resources and spend five minutes on each patient, you will not be able to treat all patients. For example, today you have only 2 doctors and 1,000 patients. If each patient needed five minutes, I would be able to treat only about 100 to 200 patients out of the 1,000.” (M36, NUR)*

According to some participants, the fair distribution of medical and humanitarian resources is directly related to the controlling military authority. The decisions were often based on security or military grounds rather than the issue of achieving justice in treatment, which complicated resource allocation for healthcare workers:

*“Sometimes, certain people are allowed to receive treatment and others are not. In this case, equality and equity in having access to health services will not be achieved. If it were up to us, we would accept patients regardless of their background. But here we are obligated to serve civilians only, and we are forbidden to serve fighters. And if you don’t comply with the orders ... you are in the army’s area, and they decide.” (M36, NUR)*

According to the participants, the use of force was employed in many cases to gain priority in treatment when dominant military forces ordered healthcare workers to treat some injured before others:

*“The militants don’t wait for treatment; they want fast treatment and you have to accept that ... I heard many stories. One was about armed men entering the hospital and frightening the doctors.” (M44, DOC)*

*“Regarding medical triage cases ... when the Assad regime controlled the situation, the soldiers of the regime might tell you to treat this casualty and leave the other. Then, the decision was never ours. That was an annoying thing.” (M50, DOC)*

*“Although the hospitals were under the administration of the Health Directorate in Aleppo, they were under the control of the military groups. So, some groups acted ethically while others used bullying. They will order you to do this and that and to quickly treat some of the wounded.” (M49, DOC)*

*“There were many situations where shooting took place within the medical center in order to force us to rescue an injured person and leave others who were injured.” (M32, NUR)*

One participant (M36, NUR) is a thirty-six-year-old Jordanian nurse working in humanitarian and public health. He worked with Syrian refugees inside Syria and in Jordan. His service was limited to providing primary care, treatment for leishmaniasis patients, and general classification of patients for evacuation and follow-up treatment in Jordan. Since the area where he worked was close to the fighting, it was considered a military zone and therefore was under the orders of the Jordanian security authorities. This meant that, if ordered, he and his colleagues had to evacuate the area and leave patients in urgent need of care behind them, which caused stress for the workers.

Because of this experience, the participant stated that applying ethical principles can be difficult at times and in such circumstances. For example, due to his personal values, he preferred to provide care equally for all people. But when working with refugees in military-secured conflict zones governed by non-humanitarian authorities, he noted that achieving equality and justice, especially when assessing eligibility for treatment and the required health care, was not according to patients' needs and rights. To illustrate this, the participant shared the story of one of his colleagues who tried to arrange patient evacuations according to a specific medical priority rather than issues of security, leaving him with severe consequences:

*“My friend happened to be on one of the missions in difficult areas. He insisted that, for example, some patients should be treated in a certain way, and some should be evacuated and transferred for treatment only according to medical priority. Knowing that there was pressure exerted on him to evacuate and transfer certain patients for security reasons. Unfortunately, they tried to charge him with harassment and so on because he did not follow orders. The organization he works for was truly unable to defend him. He kept defending himself and telling them that they had to prove the accusations they had against him. There were investigations from within the organization and from the authorities, and they could not prove anything against him. They later came to know that the charges were malicious. However, the young man's dignity and reputation were hurt. I know this person personally. He used to say that he had worked a lot, but when he got into serious trouble, they left him to face it alone.” (M36, NUR)*

Other participants described the role of emotion and its impact on decisions about the fairness of care, especially if the patient or injured person is a fellow healthcare worker or a relative:

*“Once, 13 injured young men came to us. While transporting the injured to us, it turned out that one of the injured was the son of one of our workers ... may God have mercy on him ... the healthcare worker collapsed and no longer realized what had happened ... in another incident, one of our colleagues was injured, and he was an ambulance driver. So we couldn't control ourselves. We all ran to him from the medical center, and we all went with him in the ambulance. One of us was supposed to go with him, and the rest should have stayed at the medical center.” (M32, NUR)*

In addition, stress and work pressure play a role in neglecting the issue of justice in treatment:

*“At a time when we were under severe pressure, the principle of medical justice was not respected. For example, the issue of priority in medical care was not respected.” (M36, NUR)*

When distributing rehabilitation services from charitable organizations to war casualties, participants described ethical dilemmas related to a patient's interest versus the interest of society. For example, providing a free service to someone who can afford the price of the prosthesis places a dilemma on healthcare workers who also

serve individuals unable to afford their services. In an environment with limited resources, this could lead to criticism from the rest of the clients:

*“Sometimes the patient would tell you that he would bring you parts of the prosthesis and ask you to fit them on his leg. This may indicate that he might have financial resources. So, how can you help him for free! You have a charitable project here that aims to help people who do not have money. So we got into a dilemma here. Do we agree on providing the service to people who have money or not? Especially since other patients would see this patient’s prosthesis and may not believe that he bought it himself.” (M44, DOC)*

The preference between quantity and quality for equitable resource distribution was cited as another ethical issue faced by healthcare workers:

*“We have to decide which prosthesis we use and which quality. Do we give ten people high-quality prosthetics, or give one hundred people low-quality prosthetics?” (M44, DOC)*

One healthcare worker (M29, NUR), a 29-year-old nurse, worked as an emergency nurse for two field hospitals under a humanitarian medical organization in 2012, right before the start of the war in Syria. He started this job soon after graduating from university. He shared that working in Syria between 2012 and 2014 was his most difficult nursing experience because the field hospitals were close to a combat front. For instance, during his interview, the participant described caring for many injuries simultaneously and losing control of triage when both low-priority and critical cases were brought in by outside workers from the front lines to the at-capacity emergency department. This disrupted priority setting and the entire triage system erupted in chaos, creating an extreme situation where the participant and his colleagues did not know what to do and were no longer able to effectively work.

The chaos created ethical challenges and dilemmas related to prioritizing treatment in the event of mass casualties. It is essential to follow the priority settings in classifying patients according to the degree of risk and the need for urgent treatment because his issue can negatively affect rescuing the wounded, the use of resources, and the ability of medical personnel to rescue as many injured as possible. The participant described this event in thorough detail:

*“On that day, there was an attack ... and a large number of casualties occurred ... we reached a point where we could no longer control ... there were workers ... neither nurses nor doctors ... who transport the patients ... they take the injured into our department, according to the colors. This is a red case. This is a black case. This is green, so let him stay here. However, there was a kind of differentiation between the victims based on social ties. That is, there was someone who recognized this patient to be his friend, his brother’s friend, or something similar, and the triage became like this ... All patients were admitted directly to the emergency room, which was primarily intended for severe red cases. We had a large number of red and other cases flung to the ground. Among the injured people, there were two; one of them I knew personally, the other was unknown and needed a thoracentesis ... the surgeon in charge of him was in the operating room to perform another operation.*

*The first patient had a gunshot wound to his neck ... I gave him oxygen, and there were not enough oxygen generators. Therefore, I shared two patients with the same oxygen source using a piece of plastic ... you lose control here ... the other nurses were dealing with the patient who needed a thoracentesis. The nurses went to the operating room and asked the doctor for guidance, so he told them, 'I am doing surgery now, do I have to leave what's in my hands and get out!' As the nurses went to get equipment to do a thoracentesis, the anesthesiologist got there ... he told them that he would do the thoracentesis, and he did it ... we had one operating room... there were several injuries to the abdomen and small intestine, and the operations lasted four to five hours. Every new injury that needed an abdominal opening operation was directly sent to other hospitals. We were taking such decisions after we had this mess. As for the people who were injured in the limbs, we would stop the bleeding, compensate for the lack of fluid, and let them wait until we seek the surgeon's opinion ... back to the patient who was injured in his neck; we noticed the deterioration of his condition, so we made a decision and sent him for treatment in Turkey. It took a long time for them to reach Turkey across the border. By the time they arrived at the hospital in Turkey, the patient had died. This was one of the most emotional and stressful days. I only told you about two examples, but the victims were all around. However, the two cases I mentioned occupied my mind during that time." (M29, NUR)*

Another participant (M39, NUR), a 39-year-old nurse with a master's degree in nursing, has provided medical care since the beginning of the revolution in 2011 in the liberated areas of Syria up until at least the time of the interview. During his tenure, he has experienced not only difficult care-related situations but also extremely dangerous situations, such as witnessing a shelling attack on the hospital he worked. During the interview, the participant shared a story where he rescued two children after a bombing near his house, but was faced with a dilemma of which child to provide life-sustaining resuscitation to while on the way to the hospital:

*"One time, in 2012, a house near where I live was bombed. A warplane came and dropped explosive barrels, and I was one of the people who helped two children. One was one and a half years old and the other six. One of the most difficult situations I faced was transporting these children from the scene of the accident to the hospital. The children needed resuscitation, and there was no one to help me with that ... I tried to balance between the priorities of these two children. It was a difficult situation. Do I resuscitate this child or that child! Moreover, on what basis! You are in an unenviable position. Sometimes, in such situations, it is difficult to apply on the ground what you have learned in the academic field ... you are in conflict ... thank God, until I got to the hospital and the distance was about half an hour, the children arrived alive." (M39, NUR)*

Healthcare workers generally give priority treatment to the most critically ill patients where treatment is time sensitive. However, participants identified challenges in deciding priority when multiple individuals were critically injured with similar injuries:

*"When there is bombing and emergencies, I always start by helping the most seriously wounded. We tried as much as we could to help everyone we encountered. But in critical*

*situations, this was not the case. If you could wait, then you have to wait for half an hour, for example. To me, the priority was for someone who was at great risk ... sometimes, you get two patients who cannot wait, or whose injuries are just as serious. You do not know whom to help first, and then you struggle among these victims and try to do your best.”* (M31, DOC)

If the injuries were similar, some workers prioritized the young person over the elderly and women over men due to the prevailing cultural norms in the region:

*“If they bring me two injured people, one a young man and the other a child, and the two of them were in equally serious conditions, I would begin by treating the child because I’d say that the young man could bear his wounds a little. And if one of the injured were a woman and the other a man, then I would also begin by treating the woman because the man could bear his wounds ... you also know that our societies are conservative, and there could be a lot of men in the emergency room, so it would be best to treat a woman first to protect her privacy.”* (M31, DOC)

*“Treating children was often a priority over an old woman. For example, if there were an old woman who suffered from high blood pressure and was traumatized, we would try to send her to another hospital. In the case of a child, we would help him because he is more important than the old woman. This means that we postpone treatment of terminally ill patients.”* (F32, PHA)

Participants also explained that sometimes services were provided on a first-come, first-served basis unless otherwise indicated by the doctor’s recommendations or severity of other cases:

*“So far, we have worked on the standard that we give the prosthesis first to the patient who comes first ... we used to accept the patient who comes first and install a prosthesis for him if there was no emergency. But if there was an emergency or a doctor’s advice, we would change the priority. For example, if a person with a broken hip came to us, and the prosthesis helped him to stand and walk in order for the fracture to heal quickly, then he would have priority. So we were taking these cases into consideration and treating them quickly.”* (M30, PRO)

Other participants described prioritizing treatable injuries over those whose injuries left little chance for recovery:

*“You should first classify cases according to priority and triage, and work on this basis. You have to start treating who could be saved from the wounded people. Cases with no hope of recovery would not be treated.”* (M46, DOC)

*“War casualties are usually brought to us in great numbers. Some die, and others are classified according to their greatest need and critical condition. Some seriously injured people are left to die because there is no way to save them.”* (M49, DOC)

In the examples shared by participants, it became clear that the number of healthcare workers available, the availability of resources, and how stressful the environment were important factors shaping priority setting and triage:

*“Do you deal with the most critical injuries or the least severe! How are decisions made? The issue is linked to the pressure and the availability of healthcare workers. All that is linked to the scarcity of resources ... and the limited options available in our hands. This thing was causing ... in addition to the amount of the massacres that happen ... this thing was causing some conflict for doctors to determine and choose priorities.” (M49, DOC)*

*“Capacity played a major role in the medical triage decision.” (M29, DOC)*

Priority in treatment for other participants relied on rescuing and treating as many injured people as possible:

*“The rule was to save as many as possible. We used to start saving cases that could be treated quickly and so on, not the other way around ... there are times when the most difficult case would be selected and sent to the operating room if the condition of the remaining cases allows waiting. But if the rest of the wounded could not wait, then I would choose the cases that I could treat faster, so that I leave room to save other cases. Of course, here we are talking about life-threatening cases. We are not talking about amputation. Amputations were treated ... in the emergency department to stop the bleeding.” (M29, DOC)*

According to some participants, the classification of the injured at the beginning of the war was often random due to the lack of experience and the number of volunteers without professional medical background:

*“Honestly, if we wanted to talk from the beginnings in 2012 and until 2014, there wasn't ... I mean we weren't following something called triage. The work was random. The reason for this was the presence of volunteers among us. Even we as nurses, during our nursing studies, did not consider this issue and study it in depth.” (M32, NUR)*

Emotions and kinship were described as other determining factors in clinical priority:

*“We were drawn more to the sights of blood and to those who cried more among the wounded. Sometimes it happened that we served first those we knew personally.” (M32, NUR)*

*“Some moral values have not been respected at this moment ... the injured were coming in succession. A nurse was trying to open a vein for someone in the triage room ... and on the other side, there was a nurse trying the same for another patient, so the nurse shouted and said to her, ‘is this not your husband!’ So the nurse left her patient and became preoccupied instead with her husband. The rest of the healthcare workers did the same. Because she started crying and screaming loudly ... her husband had a limb injury and a lot of bleeding. He was unconscious. So everyone tended to give him IV fluids because he is the husband of their co-worker ... this thing also caused tension, and this is when the pressure started.”*



*Here our interest in this close relative of a female worker has begun. The workers who care for the patients' transport ... do not have any medical experience ... they felt that this patient received better care because we know him, so they broke the rules in the triage. There was a lack of respect for these principles, and it was replaced by social relations ... they allowed acquaintances and relatives to be treated first." (M29, NUR)*

Per the participants, determining priority is a strenuous burden for them and their colleagues, raising difficult questions that leave them wondering well beyond the moment whether their decisions are correct or if there is a possibility of saving more injured people:

*"Frankly, I started reading about the topics of guidance, ethics, and triage in early 2013. When I think of these questions that I've shared with you, I say to myself, oh God! Was it possible to save more than one! Was it better to treat this person before that one! Here, I read to look for justification. I want to find justification for myself." (M29, DOC)*

#### 4.3.2.10 Neutrality, equality, and non-discrimination

Participants in this code described how healthcare workers were required to abandon the principle of neutrality and follow the orders of controlling military forces:

*"Some of the armed factions told us that we were operating in the places they controlled, and, therefore, we were affiliated with them. We told them we are neither affiliated with you nor with others, we are doctors! The medical staff has nothing to do with that. They were not satisfied with what they heard from us. We were in trouble with the authorities who ruled in the area. There was no so-called neutrality." (M47, DOC)*

*"Some people got annoyed with us and said, 'why did you help the soldier!' On the other hand, the soldier asks you, 'why are you helping the rebels!'" (M50, DOC)*

*"I remember two clear cases where there were wounded members of the Assad regime. In both cases, there was pressure from the FSA (Free Syrian Army) for these wounded not to be treated. But we told them that we would not allow the wounded to be discharged from the hospital before treatment; otherwise, we will stop working. We succeeded in treating them with the usual triage method. Some might say this is wrong. But our work was correct and in the right order." (M29, DOC)*

According to the participants, the extreme violence practiced by the Assad regime against its opponents provoked an emotional reaction among healthcare workers. This reaction interfered with applying neutrality when dealing with wounded soldiers from the other side:

*"What happened to people as a result of the disasters that the Assad regime has caused! If the wounded were soldiers of the Syrian regime, the physician's or the nurse's treatment may not be 100% ethical. Why! Because this healthcare worker might have lost his brother, mother, father, or son due to the bombing of the regime forces, while now he has to treat a*

*wounded soldier from the regime! So the dealings with this soldier may not be 100 percent moral.” (M55, DOC)*

*“Can you imagine that your enemy is bombing your hospital while you are asked to be totally ethical in dealing with war prisoners! If the residential areas, hospitals, schools, and bakeries were not a target of the bombardment, it would be then easier for workers to follow ethical standards in their dealings.” (M49, DOC)*

One participant shared that, while working in Syria during the war, if it were identified by militants that an injured soldier of the other side was rescued, the primary goal of this rescue turned to interrogation rather than treatment:

*“When they rescue someone from the other side (enemy), they rescue him to question him and not to treat him ... sometimes they say we need information, so we would have to question some prisoners. So the treatment will be to gain information.” (M49, DOC)*

According to some participants, patients are sometimes discriminated against because of their political affiliation, dress, kinship, religion, or national origin:

*“There is arrogance in dealing with patients. For example, some healthcare workers say of patients, ‘this is a displaced and this is a stranger’. They also say, ‘we can’t do better because the patient is in poor health’.” (F34, NUR)*

*“There has been a lot of misconduct towards these values because people, you know, describe those who have been displaced or who have fled the war as “combatant families” without any justification ... and they call them as terrorists. They are relating them and judging them depending on their dressing ... there was discrimination among people depending on their background or their religion or depending on the area they are coming from.” (M41, NUR)*

Participants spoke about the role of stress and pressure as factors influencing how they applied equality and non-discrimination during patient care. This meant that, under severe pressure, healthcare workers could choose to ignore patients with another religion or lead them to prioritize relatives:

*“Do circumstances allow me to apply these standards or not? There are patients of another religion who come to us ... we certainly will not respect the principle of neutrality and equality if they come at a time when we are under such pressure. Because medical justice has not been respected in the case of those of the same faith as ours, who had varying injuries and were mostly categorized according to personal relationships. Others will be marginalized 100%.” (M29, NUR)*

*“If two injured people came to me at a time when I am under a lot of stress, and then I found out that the beliefs of one of them are similar to mine ... in the end, I will try morally to help everyone, but if I were under a certain pressure, and someone asked me to choose ... then ... I would surely help a person whose thoughts and religion are similar to mine.” (M29, NUR)*

Participants identified instances where healthcare workers also faced discrimination. For example, some healthcare workers were fired or hired based on personal relationships, and differences in salaries, the way workers were treated, and the number of working hours were noted throughout the interviews:

*“We still have a problem with how to appoint someone as a manager in an organization. In one of the organizations, shortly after being appointed as a manager, he started getting rid of old employees. He wanted to hire his own people. So I asked him, ‘why are you doing this?’ He told me, ‘I want to hire my own people, so I can do my work as I wish.’” (M32, PHA)*

*“There is no equality. There are disparities in salaries, number of working hours, and shifts. There is even a disparity between ... I mean, for example, as I told you, there are people who benefit from favoritism in other organizations, so their work and salaries are better than mine. It’s all about the principle of equality.” (M32, NUR)*

### 4.3.3 Corruption and organizational pressure

#### 4.3.3.1 Corruption within the society

The participants referred to the phenomenon of corruption rooted in society. This corruption includes dishonesty and workers’ retreating from humanitarian goals in pursuit of narrow personal interests. According to participants, this corruption existed long before the war, thus exacerbating care-related challenges during the war:

*“We were doing our best but we could not ... unfortunately, corruption is ingrained in our societies, and this is what they have instilled in us for forty years, until today. Whether this corruption is material or moral, the situation was like that in every sense of the word.” (M31, DOC)*

The participants explained that the issue of corruption and moral retreat in society worsened after the revolution and the war:

*“The theme of ethics during the war is an important one and must be raised because we lost our ethics during the revolution and the war. Morality within the Syrian society is dead, and you no longer see the values that existed in 2011. It is true that morality was not at its height, but it was better than at present. Corruption has become deeply pervasive.” (M31, DOC)*

For some participants, even the situations in opposition areas (i.e., liberated regions ruled by the rebels and outside the regime’s control) are still not free from corruption. For example, participants described varying levels of corruption due to differences in ethical compliance among healthcare workers and in cases where some workers pursued self-interested goals:

*“People do not have a unified moral standard, and dreams are not so rosy, so there is corruption in the opposition areas. There are people who work only for their own interest and personal goals.” (M49, DOC)*

*“Many doctors in the center worked for the sake of God. But, unfortunately, with the arrival of financial support, those working in healthcare services started changing over time. There are people whose goal is no longer to help but to make money.” (M31, DOC)*

Participants shared examples where certain individuals and groups imposed financial fees on clients for services and medicines that humanitarian organizations would usually provide free of charge. The example below reveals a paradox a humanitarian aid, where it provides valuable support to those in need yet creates opportunities for abusers to manipulate its delivery:

*“We were surprised to find individuals there telling people that, ‘if you are willing to pay money, we will allow you to receive healthcare faster’. For example, they also say to people, ‘we will make it easier for you to get medicines, etc.’ Of course, these individuals reside among the people in the camp. They were doing this propaganda so that people would come to them and pay them to get access to health care.” (M36, NUR)*

#### 4.3.3.2 Favoritism and negligence

Favoritism was identified by participants as one of the most common forms of corruption widespread in the health sector and within NGOs:

*“Favoritism was present in the medical community and prevalent among doctors or ordinary people who worked in the medical field. People are moving away from the goals for which they have revolted. Unfortunately, there is now favoritism and private interests in the revolution.” (M31, DOC)*

*“Even I am working in a very high-level organization and we have, we can say, we have a minimum of problems related to these perspectives yet the influence is present. So the one who is related to this religion supports the group, his own group, and recruits the people from the same group ... so the workers are related to their partners and everyone supporting his own group.” (M41, NUR)*

*“In Syria, there is greed, and there are organizations that misuse politics and use favoritism.” (M32, PHA)*

Priority in employment opportunities within the health sector, for example, was correlated to favoritism, and this led to injustice and loss of qualified workers:

*“There are a lot of people who deserve priority in jobs and are more qualified than others, but there is favoritism. This leads to the exclusion of qualified workers.” (M25, NUR)*

According to some participants, favoritism, which they defined as favoring certain patients over others, created adverse effects on treatment priority. For example, in some cases, it caused patients to be neglected while others received better care:

*“Frankly, favoritism and nepotism increased dramatically ... for example, your friend at work tells you that he will bring his wife to the hospital, and she will have priority in treatment. This thing, I do not hide from you, happens excessively. They are negligent ... I mean, if our friend comes to the hospital, we can help her and give her the treatment, and follow her up in the hospital. But to neglect other patients for your own patient is absolutely against the principles. This person never applies these principles in his life.” (F34, NUR)*

*“When the injured person arrived at the hospital, although his condition was not serious, the head of the department and the chief of nursing took care of him, even though there were others who were more seriously injured. The chief of nursing has run the entire department in his favor. Of course, there is a kinship between this patient and the chief of nursing, and therefore attention was paid to him.” (M25, NUR)*

Participants described that some healthcare workers in Syria have taken advantage of their position for relatives or members of their sects by distributing medicines and medical equipment to them:

*“For example ... medical equipment should not be taken out of the hospital. Sometimes relatives of the medical staff come to the hospital and ask for some medical equipment, bandages, and medicines. The medical staff usually give them what they want.” (M25, NUR)*

*“Sectarianism is very prevalent in the villages. They say this sect is big and this is small. They have old enmities between them ... we had some workers from the village, and sometimes they tried to discriminate while distributing medicines and so on. They are kind of biased or have preferences in favor of their people. So we are always in a dispute over this.” (M32, NUR)*

The culture of nepotism and favoritism prevailing in the community and within the public and health sectors creates difficulties for healthcare workers. These difficulties have led to problems in the equitable distribution of health care and patients' suspicion of equal opportunities for treatment and services:

*“Sometimes, people with certain injuries come to you ... It can be a young active guy or a child. You can't give them a temporary prosthetic. You must give them a prosthetic that can handle running and jumping. This is a burden on you when another patient comes to you asking, 'why didn't you give me the same prosthesis! That is not fair!' Then you must explain the case to him. But the patient often hardly understands this because he thinks that all people bribe and rely on favoritism.” (M44, DOC)*

*“Unfortunately, our culture relies on nepotism. I have often fallen into embarrassing situations. For example, someone might come to tell you that someone else sent him to you, so that he gets more than his right to health services. Some days, I would tell them no! I apologize! But there are people who belong to a certain faction, or something like that, and get what they want by embarrassing healthcare workers and by relying on deception.” (M32, PHA)*

#### 4.3.3.3 *Lack of authority and accountability*

Participants indicated that the absence of regulatory, legislative, and even executive authority in areas outside the regime's control presents a unique challenge to applying ethical frameworks and principles. During times when authority was present, its role was often unclear and its influence was weak. In some cases, the executive management exercised authority, but often in accordance with the de facto authority's management style as it was incapable of organizing itself to complete monitoring, accountability, and regulatory functions. The lack of management on all accounts constitutes an impediment to addressing the problem of corruption and applying ethical standards and policies in health and humanitarian services:

*"Northern Syria has a very unique situation; it is not a government. It is not related to self-administration. No one knows what the political situation is, and no one takes responsibility. The ministry of health in northern Syria is very absent. Because it is not under the control of the Syrian government. So the self-administration has no capacity, and they are doing nothing in this respect."* (M41, NUR)

*"In Syria, in the countryside of Idlib and Aleppo, there is no entity that regulates the rights, and there are no state institutions to enforce the laws. If a certain standard is adopted, there is no authorized authority to implement it."* (M30, PRO)

*"We live in a state of war, and there are no laws in place. Nobody has authority over me in the medical center. I give medicine whenever I want, and I close my clinic whenever I want. There was no authority to regulate the work."* (M32, NUR)

Both the presence of corruption caused by the de facto authority and the lack of clear rules have disrupted the work of many health facilities, where each institution or organization relies on its own laws and standards and operates in an isolated, independent manner:

*"The de facto authorities caused problems. These authorities did not appreciate that you are filling a gap, and that they should help you and stand by you. The armed factions that entered the tug-of-war game supported them. Once, even the Civil Council stood against us. It was not a military faction but was controlled by two factions. The council told us that we must act according to their wishes. We said hello to them! But we will quit our job if these are the terms and hand you the responsibility! Then I went home and so did some of the healthcare workers while some others stayed in the hospital. Some colleagues even blamed me and told me why don't you stand up and fight for your right! I told them I don't fight! The council includes two armed factions. Half an hour later, they called us and told us to stay at our workplace and that they would not interfere with our work. However, they continued to interfere, and this annoyed us."* (M47, DOC)

*"There is no good system, and there is corruption in these organizations ... there is corruption, decentralization, favoritism, and poor organization and coordination, because there is*

*no health institution that oversees these organizations. Each organization acts as if it were a state in itself ... there is a problem.” (M46, DOC)*

One participant observed that implementing accountability was a problematic, systemic issue in Syria during the war. Healthcare workers critically needed clear, specific policies and ethical standards to follow and, moreover, be held accountable when violated, yet this did not exist:

*“It is very good to have an agreed-on standard. There needs to be an agreed-on academic standard to be followed in medical work instead of personal judgment. This provides protection for the worker in terms of both personal protection and decision-making. Therefore, he is not questioned about the reason for taking a specific action or decision instead of another. In this case, I have principles that I must follow.” (M39, NUR)*

In turn, the lack of accountability increased errors and decreased feelings of guilt among healthcare workers, as described by one participant:

*“Some patients are in need. They offer their prosthesis on Facebook for sale ... of course, the patient would install a prosthesis at our center, and later he would install a second and a third one at other centers, and so on ... some of our technicians, who have a private center, tell us about that, ‘oh, doctor! What can the patient do! He does not find food or drink. So the patient comes to me in my own center to sell me the prosthesis. I buy it from him, and I sell it and install it for another patient’. So, the patient installs the prosthesis in our charity center and then takes this prosthesis to sell it to some of our technicians who have a private center ... of course, this is not free of charge; the worker takes a fee for the installation. The worker should instead return the prosthesis to us. However, he thinks that there is no problem with that. For him, it is not an issue of theft or breach of trust, nor a conflict of interest!” (M44, DOC)*

#### 4.3.3.4 Lack of monitoring and management

The absence of authority during the war led to an absence in monitoring and management of healthcare workers. Participants who observed this described the difficulty in applying ethical values and standards that could help reduce corruption in the health sector:

*“I blame the health care management. I expect it to be the cause of corruption, whether in private or public hospitals, and whether they are supported by organizations or not. Because there is no monitoring ... as I told you, when an employee or a medical staff see that no one is monitoring their work, so there is nothing left ... just a little ... I’ve never denied it ... but there are only very few workers who adhere to ethical principles. Unfortunately, now everyone is just working as he pleases and things are a mess, and I won’t talk any further.” (F34, NUR)*

*“It is a matter of monitoring in the organization. Do the organizations ask themselves whether the supported health institutions apply the standards or not! Most organizations*

*provide support through intermediaries and do not know what happens afterward. They do not know where the resources go, and how they are distributed.” (M32, NUR)*

The lack of monitoring led to chaos, a retreat of discipline, and caused tragic mistakes:

*“Sometimes, private prosthetic centers are set up. But those who work there know nothing about prosthetics. You might find a worker who works for two months in our center. Then he thinks he has become an expert in prosthetics, so he opens his own center afterward and then makes mistakes. Tragic cases come to us because of his mistakes.” (M44, DOC)*

#### 4.3.3.5 *Lack of coordination and communication between health organizations themselves and between them and their healthcare workers*

Participants also reported an absence of coordination between health organizations and healthcare workers:

*“The systematization and coordination between work and the organization were absent ... systematization may have existed, but it is poor.” (M31, DOC)*

*“The medical staff in all the liberated areas do not care about rehabilitation ... they take care of the patient before he enters the hospital, and then they transfer the patient to the hospital to take care of him until he passes the critical phase only. Otherwise, they give priority to others ... this is due to poor coordination between the supporting organizations. Because the support organizations mainly support emergency medicine and only support ... dealing with critical cases. The organizations do not give room, for example, to support physiotherapy, especially during war.” (F34, NUR)*

Participants also observed poor coordination among medical and humanitarian organizations:

*“Unfortunately, there was some absence, or I wouldn’t say absence, but I will say that if there had been more cooperation between the organizations, the work would have done twice as much. Unfortunately, there may have been some tension between the organizations, so there was not enough cooperation.” (M32, PHA)*

*“There is corruption ... and poor organization and coordination.” (M46, DOC)*

Reasons cited for poor coordination included the absence of health institutions responsible for monitoring, lack of honesty, or prejudgment of intentions (the latter more common, according to participants):

*“There is ... poor organization and coordination since there is no health institution that oversees these organizations.” (M46, DOC)*

*“There is the issue of trustworthiness and premature judgment of intentions. These themes are common in our society and are deeply rooted therein.” (M32, PHA)*



According to the participants, work communication sometimes depended prominently on trust, which led to negative results. In addition, participants identified the lack of a verification and follow-up mechanism while distributing medical assistance, thus increasing the possibility of corruption and misuse of resources:

*“Unfortunately, some hospitals have shown some greed ... once, for example, they called in and told me that there was a severe shortage and so on. I went to see the hospital and did not find that they have a large number of patients. They told me that two days earlier, there was a bombing, and there were many patients in the hospital and the operating room. There was a person with us in the organization from the same town where the hospital is located. He told me that I could trust them and give them their needs. The quantity they needed was large, and there were more hospitals in need. Two days later, someone called me from this hospital and asked me if I was the one who had delivered the shipment of medical equipment. I said yes ... he told me these people love assembling and stacking, and that they have a warehouse full of medical equipment and medicines. These medicines expire, and then they discard them. But it is important for them to collect such stuff. That’s why they lie to medical companies and organizations and receive medicines and IV fluids. I do not know if they were selling them or not. But that makes it hard to find someone to trust.”*  
(M32, PHA)

Another challenge described by participants occurred when healthcare workers no longer trusted external support organizations or the information these entities provided, considering them to be too far from the reality of the Syrian worker’s daily difficulties and dangers:

*“Sometimes, there are people who believe that they know the context in which we live, but they are living on another planet. This is an ethical dilemma. They talk to health workers and cause trouble ... frankly, and unfortunately, there is an obstacle to achieving trust between those providing support and information and the healthcare workers. The healthcare worker who works in this situation will tell them, ‘I don’t want to learn anything from you because you can’t teach me anything useful.’”* (M29, DOC)

One of the obstacles encountered by a participant providing services across health and humanitarian organizations was the absence of central patient data. As a result, when patients obtain medical services from different centers, healthcare workers are unable to access information about the patient’s previous services or health conditions. This was identified as a critical factor hindering the fair distribution of services. One participant, a doctor who also served a management role, tried to initiate a central data system but failed due to a lack of trust between healthcare providers:

*“I have tried, through a major initiative, to create central data for the center of prosthetics. Several centers are operating, but there are no central data. The patient sometimes goes to a few centers and gets a prosthesis from each center. I have tried to do this, but there are difficulties. Every organization or institution believes that you want to acquire its patients.”*

*There is always doubt when they have to give out information about the patients ... there is always suspicion or ill intent that there is a story behind the data access.” (M44, DOC)*

#### 4.3.3.6 External agendas of health and humanitarian organizations

The participants talked about the existence of external agendas for medical and humanitarian organizations that may not be compatible with the requirements and orientations of health personnel. Some of these agendas were to be approved in exchange for financial support. The financial influx has shifted the goals of some healthcare workers towards financial gain rather than a commitment to humanitarian and ethical work.

*“At the end of 2015, I was trying to get away from medical organizations tied to agendas that I didn’t know about. I could no longer accept this reality. My morals don’t allow me. There were people working with you, but you could feel that their goal was the dollars and the support. External support and funding to achieve foreign agendas caused damage to the revolution.” (M31, DOC)*

Some participants also spoke of their doubts concerning the relationship of some medical and humanitarian organizations to foreign political agendas and espionage purposes. Participants claimed that if the political goals of the bodies supporting these organizations changed or interests conflicted, the organization’s work would be suddenly halted, leaving a significant medical and humanitarian services gap:

*“There are many organizations that come to us and join the work, claiming to be humanitarian organizations, but their goal is to collect information and spy for security institutions in several countries. They must choose between serving as intelligence service and working for a purely humanitarian purpose.” (M55, DOC)*

*“We hope that these organizations would be honest and not participate in material or media gains, but only in humanitarian work! ... not all organizations working in this field have a moral and humanitarian goal, sacrifice, and loyalty, but there are politicized organizations, and we have seen many of them fail. I am not generalizing to all organizations ... we are protesting against all spies ... they are agents of unknown countries.” (M50, DOC)*

*“The work of organizations must be neutralized and separated from the political track. This means that humanitarian organizations should be humanitarian- oriented only, and not follow the policies of any country. I give you an example that happened in 2016 ... there was an organization that took control of about seventy medical centers, and it was one of the largest, and its name was: XXX ... the work of this organization was suspended by State XXX overnight. Imagine that 70 centers serving people in bombed areas, camps, etc. were closed. This decision is unethical on the part of the organization and the sponsoring country.” (M32, NUR)*

*“Problems often arise between the international donor and the organization implementing the project. Then the international donor stops the project. This thing is very wrong. You should not stop the project ... because the healthcare staff depend on it ... you broke this ... because you had a conflict with one of those responsible for implementing the project. In this case, you are just a materialistic person working for money and not sponsoring a humanitarian project as you claim.” (M29, NUR)*

#### 4.3.3.7 Health organizations: Multiple ethical frameworks

According to the participants, most of the organizations that contribute to medical and humanitarian work in Syria have their own policies and ethical standards and could contradict what others have adopted:

*“Each organization has its own ethical principles.” (M50, DOC)*

Organizational differences in ethical standards and political goals have caused healthcare workers obstacles, stress, and confusion:

*“The different ethical and political orientations of the organizations caused a gap. For example, the Islamic organization Cham has a different approach than Doctors without Borders, SAMS, and SEMA. Therefore, framing these organizations within a framework that speaks about the regulations and ethics of the healthcare profession is very important.” (M27, NUR)*

*“I’ve personally suffered from this problem. I work with MSF and follow certain ethics and standards. I have to change my principles when working with another organization that has other principles. It may be a local organization, and it may be a direct opposition to the regime. I would then have to abolish the principle of neutrality. They may tell you, for example, that if a pro-regime person comes to you, you should tell us directly, and we will do what is necessary. I will have to change my principles. It is good to have principles common to all the actors.” (M29, NUR)*

Participants also explained that applying international medical standards and ethical frameworks, which many NGOs follow, could create additional difficulties, cause ethical conflicts, or have negative consequences due to the unique Syrian context and laws governing the country during the war:

*“In normal circumstances, when you treat a gunshot victim, you must write a report and hand it to the police; otherwise, you will be considered against the law. Can you do this in Syria during the war? If you do that, you’d be sending the casualty to his death! This issue is very important. Because it is also mentioned in the guidelines of the International Code of Conduct, that you have to act according to the local laws. But in Syria, if you act according to the local laws, you will be an immoral person.” (M29, DOC)*

#### 4.3.3.8 Transparency, fidelity, and truth-telling

Transparency was identified by many of the participants as the central, guiding principle expected from health organizations and institutions:

*“It is my right to get the institution’s support in every step I take. And the transparency in dealing ... I blame the leaders of sponsoring organizations, hospitals, and health centers for the poor quality of health care in Syria during the war. I blame them for not applying the moral values that are based on transparency in dealing.” (F34, NUR)*

According to the participants, this problem was widespread in Syria before the revolution and the war:

*“In Syria, before the revolution, one of my friends had a cataract in his eye. I told him that he had to have the operation, and that there was a 5 percent chance of complications. Of course, I explained to him that there was a 95 percent success rate. He refused to have surgery. Another doctor saw me later and told me that I had scared the patient, that no one says so here, and that I should tell the patient that the operation is 100% successful. And If complications occur, I tell him that he moved his head, coughed, or moved his eye, or that his blood pressure increased during the operation. But you should never tell him that a medical error has occurred. I told myself, I would never go back to work in Syria under such circumstances. Unfortunately, the patient has no awareness and the doctor is in dilemma. If the doctor tries to be honest, he cannot work, and the patients will not accept him.” (M44, DOC)*

The participants described the importance of honesty and faithfulness in work and noted that these values are somewhat lost during the war, which exacerbated corruption:

*“As a doctor, if you do not have honesty, faithfulness, and ethics in your work, you will not be successful, or your success may be only formal. Then you will not be able to respect and appreciate yourself, and you will feel guilty inside. Especially during the war ... we are in a state of war and dire need of these principles. You have to imagine if there is corruption in these principles that will lead to the corruption of the whole society. Unfortunately, this is what happened ... ethical principles have become forgotten in most of the Syrian society, especially in the medical community.” (M31, DOC)*

*“In my personal opinion, and in general, the organizations do not work with honesty. Unfortunately, some people take advantage of the war situation to steal the resources that reach the organizations. They also take advantage of the hospitals’ need for basic medical resources, and then steal the rest of the resources. This happens despite the large number of resources that reach health organizations.” (F34, NUR)*

According to some participants, the motivation for personal gain, more commonly identified in regime-controlled areas, undermined honesty:

*“Adherence to medical regulations, standards, and procedures was less present during the war. Some people tried to profit from the crises at different levels, although they were less on the opposition than on Assad’s side. For example, the director of the health department in the liberated area (opposition side) always instructed doctors about the exact fees for operations. But I have heard that some are taking more money than instructed. We are not prophets. The war circumstances do not allow everyone to be an angel.” (M49, DOC)*

*“A technical worker made a trade, taking advantage of the patient’s need. He told him he would provide him with a prosthesis from the private sector ... a knee prosthesis ... he brought him a prosthetic for \$2,000 (secretly). We found out. The artificial knee cost us only \$500. We warned the worker and punished him. We asked the patient to come back to us, and we refunded him and corrected the error. These are ethical issues that sometimes confuse workers. The worker did not see that there was a problem in his work. Rather, he said that he did so for the patient’s convenience since he brought him the knee himself so the patient would not make any effort to get it. But he brought it to him and made a financial profit from it.” (M44, DOC)*

One participant shared a personal story about concealing of a medical error and abandoning transparency to preserve the reputation of the health center, for a loss of reputation can lead to adverse effects in the community if they do not trust the care provided by the only medical center available in their region:

*“Once ... we ran out of anesthetics ... then we were able to get some after paying a lot of money ... we got a substance called propofol ... on that day, we were catering for a patient who had a previous amputation, and we wanted to do a debridement ... and an abscess treatment ... we used the propofol, but it caused the patient septic shock. The patient died of this septic shock. It was such a horrific issue because the patient was not in a serious condition. At first, we didn’t understand the problem ... then someone told us that we had to stop using this propofol because it is hand packed and not original. He told us that anyone who takes this propofol will show symptoms of septic shock. We kept quiet and didn’t tell anyone about it. We were the only center providing medical service to that place, and there was no other center. Imagine the loss of reliability that would follow if our medicines were said to be spoiled! This thing has a huge impact on us.” (M29, DOC)*

This participant said that he was often forced to lie during the war:

*“You may often have to lie.” (M50, DOC)*

Another participant (M44, DOC) is a forty-four-year-old ophthalmologist. At the beginning of the Syrian uprising, he became involved in medical and rehabilitation work. The participant mentioned that he witnessed many tragedies from the continuous bombing of residential areas. During his interview, he described several challenges he experienced with specific ethical dilemmas, including the challenge of sharing bad news to the patient and patient’s family that resulted from the scarcity of resources and a lack of specialists:

*“Several advanced injuries were brought to us ... one of them was an 18-year-old girl who was injured in both eyes. Her sister was killed after the missile hit them while they were in the bathroom. At the same time, a little girl was brought to us with an eye injury. It was hard for us to decide whom to help first. We decided to treat the little girl and try to sew the cornea and remove the splinter from her eye because there was some hope. For the first girl, there was no hope as her injury was more serious and her eyes had to be removed. The problem lies in the fact that you can’t remove them and you can’t tell the family that you want to remove them. You have to run the operation and try, and then tell them we tried but that it was God’s destiny. Then you can remove them. Of course, eye removal requires consultants, and this is not available in wartime. You always argue with yourself. I think frontline healthcare workers always face tough ethical decisions.” (M44, DOC)*

#### **4.3.4 Psychological, emotional, and social stress**

##### *4.3.4.1 Feelings of Syrian healthcare workers during the war*

Symptoms of anxiety, fear, confusion, and stress were expressed by participants when providing care in Syria due to the dangerous working conditions, deliberate targeting of medical facilities, and the complete loss of a sense of safety:

*“Your life as a healthcare worker is in danger. You are targeted by the Assad regime. Also, there is a lot of chaos and you can no longer distinguish between the fighting forces there. Even our armed men of the opposition descended into chaos. Anxiety, fatigue, and terror prevail every day.” (M31, DOC)*

*“I am now sitting in the hospital without reassurance. Four hospitals in the northern countryside of Hama and Idlib were bombarded by Russia and the Assad regime in the recent campaign. These hospitals have become out of service. We can be bombed at any moment. There is never any protection for us.” (M55, DOC)*

*“There were two main issues that caused me a lot of anxiety. Although I was living in the opposition’s territories, there was no sense of security because of two things. Firstly, there was constant bombardment from the air, and secondly, you do not know the people around you. You could see, for example, many people wearing Djellaba (a loose cloak worn by Arab men) and growing beards. But you are unsure to whom they belong, maybe to the other side (the Assad regime side) or any other side ... for us, as foreign doctors, (we were a team of six) it was hard, and, therefore, we had to walk only with trusted people and work anonymously with fake names.” (M49, DOC)*

*“Sometimes, we were surprised that some clients were armed. Because we are here in desert areas. We sometimes hear gunfire from behind the border barrier on the Syrian side. Sometimes, it confuses and puts us under pressure.” (M36, NUR)*

*“Imagine that the hospital receives the wounded due to the bombing (most of them are civilians, children, and women) in addition to the patients who are already in the hospital, and you have to secure them when the bombing occurs. So you are at a loss as to how to do*

*it. Well, whom should you secure! You must also secure yourself. We are in the hospital, and we hear the sounds of bombing, and the sounds of incoming warplanes and reconnaissance planes which are often followed by bombing. Here, you are confused and do not know where to go!” (M50, ANE)*

The participants shared the fear they experience anticipating the Assad regime forces recapturing their areas and thus punishing them for treating the regime’s opponents:

*“The city of XXX was mainly under the control of the rebels. But there were military incursions into the city by the regime forces. Consequently, the party controlling the city was changing, once for the regime forces and once for the rebels. As a medical staff, we were afraid of being accused by the regime of treating the rebels.” (M50, DOC)*

They also described a fear that healthcare workers would be kidnapped and abandoned, which increased their psychological pressure:

*“The organization I work for, a United Nations organization, told me that if I were kidnapped, it would be impossible to pay a ransom for my release, even if the kidnappers threatened to kill me. They don’t say it outright, but this is the reality, and it puts you under a lot of psychological pressure.” (M36, NUR)*

One of the participants still experienced flashbacks to his traumatic imprisonment and the accompanying suffering a few years ago when he was imprisoned for helping and treating opponents of the Assad regime:

*“Sometimes, when I’m alone, I start having flashbacks for about a minute. Then I can’t sleep the next day, just imagining what happened to me.” (M27, NUR)*

Participants shared tragic images and scenes they are unable to forget, leaving them with psychological scars:

*“I went through difficult experiences at the beginning of my work. It is when you see paralyzed children or children amputees. The first thing that comes to mind is that this child is not guilty and has no affiliation except for his country. These issues affect us the most. The issue of children and women ... I encountered two or three such cases that I was severely affected by.” (M30, PRO)*

Participants witnessed many other tragic events related to their work, such as failing to save the life of a relative:

*“You cannot imagine that you are a medical worker, and that one of your relatives is bleeding in front of you while there is nothing you can do. I have been through this experience. My Brother-in-law was martyred in front of my eyes. You do not know the psychological effect this causes. These are unforgettable moments.” (M31, DOC)*

The massacres that took place deeply affected the participants on a psychological level:

*“Many massacres happened here. A massacre took place during the visit of international observers to our region. Fifty-five people were killed and about a hundred wounded. This moment is never forgotten ... we have experienced a lot of embarrassment in front of people because we sometimes stand helpless in front of them when it comes to dealing with the consequences of these criminal acts.” (M49, DOC)*

Participants noted that ethical decision-making as a result of the acute shortage of resources caused them pain, stress, and feelings of helplessness:

*“Our work was in besieged areas, so the difficult experiences we had were daily. This creates additional stress. We had a problem with the scarcity of resources, with the way they were used and distributed, and with how to decide on that. We had to make such a decision on a daily basis, and it was annoying and painful ... a newborn needed an incubator ... we decided not to put him in the incubator because we did not have the fuel to run the generator. The generator must run for at least 72 hours to operate the incubator.” (M29, DOC)*

*“The scarcity of resources costs us a high price. It is one of the causes of psychological pressure on the medical staff. Because the problem could have been solved by using a simple device and a simple procedure. But you don’t have this simple procedure, and the resources are not available. There are so many words to say!” (M47, DOC)*

*“We must adapt according to the resources. We contained ourselves a little and tried to control the medical issues.” (M50, DOC)*

*“Some drugs were not available, especially chronic disease drugs ... an old man comes to you, and he cries in front of you ... there is no medicine and what he needs is just medicine. His health is ailing. What can you do to him! There is nothing in your hand. This thing is downright painful and affects us very, very, very, very much. This is too stressful that it was necessary for the worker to get breaks for a few days until he is relaxed a little, and so that he could maintain his psychological and physical health conditions properly.” (M36, NUR)*

The participants who left Syria also describe detriments to their psychological condition. For instance, some felt guilty for leaving their job and patients in Syria, expressing a loss of hope for the ability to work honestly under those conditions. The decision to stay and continue providing services means accepting the existing corruption, but leaving brings feelings of guilt for ignoring Syria’s urgent need for healthcare workers:

*“Our faith was weak, so we left the country. Sometimes you feel guilty. If you want to talk about morals, I always feel guilty that I left Syria. In truth, I did not leave because of my circumstances, but I hate seeing mistakes and being helpless in front of them. You know you cannot swim against the tide. You can stick to your principles and morals, but it is impossible to avoid forbidden money. Misery was widespread there.” (M31, DOC)*

Other participants who left Syria admitted to still feeling anxious about the care they provided during the war, with lingering doubts frequently plaguing them as to



whether they made the right choices when distributing care and assigning priority in treatment:

*“There is a question that the doctor who worked there will not forget. He will always remember the experiences he went through, and the following question will always come to his mind: What if I chose to do the opposite, would I be able to save that patient’s life? I left my job there at the end of 2016, and that question still comes to my mind every day, and it never leaves me.” (M29, DOC)*

Participants further noted that they do not have access to psychological support in Syria, yet continually are forced to make ethical decisions daily with significant psychological implications:

*“In fact, the psychological impact resulting from the consequences of ethical decision-making is permanent. So far, no one has succeeded in addressing this issue, and yet no one cares about it. Nobody pays attention to what happens to the people who make these ethical decisions. Things are very bad and painful.” (M29, DOC)*

#### 4.3.4.2 Solidarity

The participants also shared that the absence of international and global solidarity with them and their suffering contributed to their stress and pain, exacerbating feelings of being left alone in the face of destruction and against the war machine that targeted medical facilities and healthcare workers:

*“For us, there are no rights. There is no state. We live in a time of revolution. This revolution was subjected to war. We are now being bombed by a superpower ... where are the rights! If there is no existing state that gives you your rights! We get the rights here from the Lord of the heavens. We are waiting for God to prepare for us a state, whether in the West or the East, to adopt the rights of the oppressed in the liberated Syrian region.” (M50, ANE)*

*“We are talking here because of heartbreak. Our children are being killed and our land destroyed ... the criminal militias do not fight the rebels but the civilians, and yet the revolution will continue. I appeal through your academia in Germany, Europe in general, and the United Nations, and tell them that they are accomplices in killing the Syrian people. Do you know how! Academics! When you see people being bombed and killed in hospitals (we are ready to provide all relevant reports). How can you then be silent and only provide us with minimal services through your organizations that claim to be medical and humanitarian! Perhaps the world does not realize, or people do not know, or universities do not pay attention to this real tragedy that the Syrian people are living.” (M50, DOC)*

*“We are trapped here in the liberated areas. We hope our words reach the whole world. This is my wish. That you project the struggle that we’re living here, hoping it would reach those who are humane and have morals to help the people here. Nobody is helping those*

*whose homes have been destroyed. These people are on the streets without homes. Very few agencies are helping people who have lost a limb, for example. You may find one out of a thousand of these people who may have a philanthropist to help him and to personally fund the treatment.” (M50, ANE)*

#### 4.3.4.3 Islamic ethics and community customs

Some participants observed that Islam inspires many of the medical values they adopt during their work, yet at the same time, corruption in family and within the Islamic community presents adverse effects on the ethics of healthcare workers. Moreover, they argued that adopting religious values at work did not always result in the desired effects. Some workers have different interpretations of applying Islamic values at work, resulting, for instance, difference in treating injured patients based on their religious beliefs.

The following examples illustrate the issue of professional values being inspired by Islam and the possibility that these values are affected by societal corruption. In the second example, the participant called for the implementation of non-discrimination, neutrality, humanity, and independence so their work could align with the principles of Islamic Sharia. The participant also called for treating prisoners with dignity. In the third example, the participant described focusing on the applicability of Islamic values to humanity:

*“You can say all those values are inspired by Islam and the conservative society in which we have lived. Those were the ethics of my father and your father and my family and your family. If corruption exists in the community or family, and if you are not reinforced by morals, then things will only get worse during the revolution ... even if you have morals, they may deteriorate during the revolution. But this thing should not prevent you from trying to preserve your morals.” (M31, DOC)*

*“The area at that time was of an Islamic character and orientation. Each of us was unknowingly applying the principles of Islamic Sharia ... we followed the medical oath that we swore, to deal only with the patient regardless of other details. Thus, we achieved the principles of non-discrimination, of neutrality and humanity, and of independence, but without knowing these terms at that time. We also adhered to Islam. In Islamic morals, the captive must be honored, ‘and they feed the food for his love, poor and orphaned and captive’ (Quran). When a patient came to us, even if he were a prisoner from the other side (the enemy), we would try to put pressure on the military factions that captured him and tell them that this is a patient, so he must be treated, and he must get his right. We were trying to reach patients who couldn’t reach us either.” (M47, DOC)*

*“‘If you saved one life you saved the life of the world’, this is one of the Islamic values which means that if you saved the life of any human as if you saved the life of all humans and all humanity.” (M41, NUR)*

In the following two examples, participants explained that Islamic principles are achieved, for example, by providing privacy for patients, especially for women:

*“For example, I only uncover the area of the patient’s body that I would like to examine or work on. This matter is related to the policy of maintaining the privacy of the patient on the one hand, and related to Sharia law on the other hand, especially if we are dealing with a female patient. Here I have to stick to these things.” (M25, NUR)*

*“The Islamic religion cared for women and gave them their rights. Therefore, we find in our health centers and hospitals privacy for such a thing. There are women’s departments in the hospital that are only accessible to women ... we also have privacy ... for example, if any male teacher wants to enter a classroom where there are female students or teachers, he must consider the issue of privacy and permission.” (F34, NUR)*

One participant attributed his desire to master his medical work and provide his best during the war was due to the religious commitment that motivated him:

*“I remember that the Prophet Muhammad (peace be upon him) said: that God loves if one of you does a job that he masters (Allah loves that when anyone of you does something, he does it perfectly). This Hadith (prophetic tradition) is for us a slogan ... this thing is essential in medicine, especially in surgery as a science and a profession. So we have always tried to master our work until we reach an excellent result.” (M46, DOC)*

Some participants shared that Islamic principles urged them to be altruistic, help the wounded, and spread goodness and love. According to the participants, moreover, while some healthcare workers sacrificed everything to apply these principles, the presence of corrupted workers could not be ignored:

*“You should help and rescue the afflicted. If you were walking on the road and see a wounded person, you should not leave him and move forward ... this is the ethics of Islam ... to rescue the distressed and help them ... I expect that all the monotheistic religions encourage this, not only Islam ... but Islam, in particular, exhorts doing it. Islam focuses on them more than other religions do ... to love others as you love yourself. Yes! This is based on the principle of, ‘not one of you becomes a true believer until he likes for his brother what he likes for himself’ (A prophetic hadith).” (M50, ANE)*

*“The general slogan for all the people there is that they work, ‘for God’s sake’. Therefore, it is not expected of them to betray or fail in relief work or so. You would see a person who gave up the whole world, went to Syria, and worked there with faith, and only for the sake of God, and did not want a salary or anything in return ... it is a sacrifice. Sacrifice for benevolence ... it is to give preference to others over yourself ... on the other hand, you would see someone else who just wants to make a profit, and he is corrupted. Glory be to God! It is weird to see these two working in the same organization.” (M32, PHA)*

One participant acknowledged that the followers of religious morals contributed to aspects of corruption:

*“People who apply Islamic standards follow an Islamic approach. For example, there’s Doctor X. He was a director of health. If his medical team was left unattended, there would be a lot of corruption and chaos. He is also a volunteer, but for a long time. These people were able to put things out there under control.” (M49, DOC)*

Participants also acknowledged the role of religion in psychosocial support for patients in Syria:

*“This Islamic dimension can be well utilized. For example, when you talk to the patient, there needs to be this psychological religious support; otherwise, it will be very difficult to tell the patient that a medical complication has occurred, etc. You must explain to him, but you must tell him in the end that everything is predestined, and that everything is by the will of the Lord of the Worlds (Allah).” (M44, DOC)*

Some further attributed their survival and their ability to stay and work in Syria, despite the pressures, to the will and mercy of God:

*“We will keep going, and God has protected us. Without the kindness of the Lord of the Worlds (Allah), the entire Syrian population, not just the doctors, would have been exterminated.” (M46, DOC)*

According to some participants, however, religion could be exploited to cover up medical errors:

*“There is a certain Islamic dimension in there. Unfortunately, this religious dimension is being exploited against the patient’s interest ... for example, if complications occur during surgery, the doctor will explain that it is the will of the Lord of the Worlds (Allah) and does not acknowledge the medical error. And people there accept that. This is very bad.” (M44, DOC)*

One participant described some workers relying on religion to justify interrogating the injured from the other side rather than treating them:

*“Let’s talk about neutrality. Was there neutrality! If there were moral principles, they would be based on an understanding of the Islamic principles and not on the principles of the Red Cross or Geneva. For example, when they rescue someone from the other side (the enemy), they do so for interrogation, not for treatment.” (M49, DOC)*

One participant opined that ethical standards must fit into the religious values of healthcare workers. For instance, the application of equality in Islam might not impose equal treatment and priority among all patients in the same way as it would in medical ethics, especially for those injured from the other side:

*“Anything that is compatible with the Islamic religion is considered a priority, and anything that is not compatible with it is considered less important and not a priority. For example, I do not treat someone who is hostile to me and fights against me as equal to someone who fights for me ... I cannot put the principle of impartiality as a priority.” (M29, NUR)*

One of the participants attributed the inability to continue working in Syria to a lack of loyalty to God. He argued that the weakness of the fear of God was a reason for the weakness of morals in Syrian society:

*“There was no sincerity towards God; that’s why we could neither complete our work nor bring down the Assad regime. Loyalty is a moral principle, and we have not been loyal. There is a lack of morality in society as a whole. I think the most important reason is fear of God, and I do not know if it can be listed as a moral principle. If there is no fear of God and faith in God when undertaking an action, then everything will be absent, including morals. Then you will not find anyone sincere and honest, but you will find injustice!”* (M31, DOC)

One participant described that the significant fluctuations in faith among the people, due to Syria’s exceptional circumstances during the revolution and war, also affected healthcare workers:

*“During this period, the fluctuations of religious faith among the people were very visible. Some people moved from the far right to the far left. They may return to their belief, or they may not. These fluctuations were highly visible, and you could see them not only among health staff but also in society at large.”* (M29, DOC)

#### 4.3.4.4 Privacy

Privacy is a sensitive issue in Syria, especially when providing care for women. One participant spoke about the importance of understanding social norms during medical work in Syria and the need to respect privacy while dealing with war casualties:

*“Honestly, the customs of your community or your whereabouts interfere a lot with the medical work ... we try very much to respect that. I mean, for example, when we were in the city of XXX, there were many ethnicities, and you feel that you have a little more freedom to work ... for example, if the injured person were a female, you could work with her easily. But if you were in a field hospital, and the area was conservative or a little strict, then there would be some austerity or commitment to tradition ... it happened to me on one occasion ... where they brought us a 20-year-old female patient. So I looked and found that her brothers were by her side, and that they were the ones who had rescued her. There were female nurses, so I tried to walk away and let them do the job. This was welcomed by the brothers of the injured girl.”* (M27, NUR)

One participant reported an instance where another healthcare worker photographed patients without their consent to use for a training course, including the course’s marketing materials. The participant pointed out that most of the patients in his clinic are unfamiliar with healthcare regulations and their legal medical rights, therefore, and are not aware they can object to being photographed without consent:

*“A prosthetic technician took pictures of patients and wanted to use them in a training course. But, in this case, he would be advertising his services because this course was not free of charge. He did not take our permission and did not get approval. We told him that if he wanted to do that, he would need to take our consent and that of the patients. Of course, our patients are simple. Maybe if they see their photos in a training course, they might get upset, but they won’t do anything because they don’t know their rights and they don’t know that they can sue the publisher.” (M44, DOC)*

Another participant discussed the general lack of respect for privacy for doctors and patients and that this situation was similar before the revolution and the war:

*“There was no privacy, even in security matters. For example, in every hospital, there were security men who accompanied us on every mission. These men used the walky-talky. They used to speak to each other over the walky-talky, saying, ‘I have a doctor from the United States, and I will bring him to the borders’. They shouldn’t say this! Such information should be kept confidential ... we have suffered because of that. There is no privacy for medical personnel and patients. Privacy ... wasn’t on the agenda. They were saying, ‘we don’t need privacy now, we have to treat the man, he may live or die, etc.’. The principle of privacy was nonexistent, even in peacetime. Doctors used to use their patients’ personal data to promote themselves by saying, ‘I treated this patient and that patient’.” (M49, DOC)*

One participant spoke about the difficulty of applying privacy during the war, especially when an injured person’s family wanted to enter the emergency department and be present for the treatment:

*“According to the instructions, if the victim is over the age of 18, he is an adult. If he is younger, the father and the family are allowed to accompany him inside the clinic. But, sometimes, the family asks to accompany their patient even when he is an adult. While you should only allow the injured to enter the clinic for treatment. Sometimes it’s hard for parents to let their child or family member into the clinic when they themselves have to wait outside.” (M36, NUR)*

Another participant spoke about an experience in which he had difficulty protecting privacy under war conditions that led to distress for another healthcare worker:

*“There was a patient who had a direct heart injury ... the surgeon opened his chest ... he told me ‘look, there are some remains of a heart’ ... at this time, the alarm went off. We ignored it and started sewing the wound. Then a worker came and told us that we should evacuate ... perhaps the warplane got the hospital location and has now returned to bomb it. At that moment, we had just done a simple suturing of the wound because the person was dead. In order not to leave the wound open. Then we headed to the safe zone. At this point, someone seems to have seen us as we were leaving the operating room. He was accompanying the patient. He opened the curtain in the operating room and saw that there was a person on the operating table, no one with him, and blood everywhere. This someone kind of collapsed ... I told him that we were not the cause of the other person’s death, but*

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*that he was already dead, and his heart was torn. We had to leave him like this because a warplane was hovering over us. So that we can survive and be able to help other people. In the end, I felt like he showed me he was convinced, but that, on the inside, he was not ... Patient attendants may see the situation from another perspective. They told us, 'what would you lose if you just covered him up and told us that he died, so that we wouldn't see him in this condition!'. ' (M29, NUR)*





## **5 Discussion**

Chapter 5 holistically evaluates and integrates the results of the literature review and the qualitative interviews. The first section presents a discussion of the ethical values and principles identified in the ethical frameworks, codes, and guidelines; the second section relates the experiences of healthcare workers about the difficulties of work and the challenges of implementing frameworks and codes in the field; and finally, the third section compares the ethical principles and values used or considered important by participants and those included in the ethical frameworks, guidelines, and codes.

### **5.1 Analysis of ethical principles and values for disasters and emergencies**

In this section, the most pertinent ethical principles and values identified during the frameworks, codes, and guidelines review are subjected to a broader study and analysis. The present study aims to provide a summary of the current state of the literature pertaining to ethical principles in disasters as a way of determining if and how they differ from those applied in the context of war in Syria. To meet this objective, additional literature is used to explore the current state in this field, identify gaps or inconsistencies in a body of knowledge related to this present study, and explore the challenges, obstacles, and dilemmas for the application of these principles. The

articles for this general literature review include peer-reviewed papers and essential reports identified using open-access search engines Google Scholar, Google's standard search engine, and PubMed.

As previously indicated, this present study also aims to provide a suitable platform by which to understand the phenomenon of war and disasters and suggest appropriate recommendations and frameworks that adequately address the ethical challenges frequently observed in conflict and wars. Studying the relevant ethical principles and values helps to understand not only the current situation in this field but also connect it to active, ongoing research. Moreover, the analysis completed in this section may assist those unfamiliar with, or lacking field experience in, conflict and disaster settings to better understand the differences in priorities, values, and ethical principles through the lens of specific cultures and contexts.

The ethical principles and values evaluated in this section are summarized in Table 9.

<b>Table 9. Ethical principles and values</b>	
1.	Justice, fairness, and non-discrimination
2.	Neutrality
3.	Individual liberty
4.	Privacy and confidentiality
5.	Fidelity, loyalty, and respect
6.	Beneficence and nonmaleficence
7.	Solidarity and unity
8.	Reciprocity
9.	The duty to care
10.	The duty to steward resources
11.	Transparency
12.	Accountability
13.	Trust
14.	Consistency
15.	Proportionality
16.	Humanity

### 5.1.1 Justice, fairness, and non-discrimination

Defining the concept of justice is a debate as old as history. Briefly, the traditional view defines justice as giving each person what they deserve or, in more traditional terms, giving people what corresponds to their own merit and social contribution (Hamed, 2014). Beauchamp and Childress (2013, p. 250) describe justice generally as fair, equitable, and appropriate treatment based on what is due or owed to persons, further describing distributive justice as fair, equitable, and appropriate

distribution determined by justified norms that structure the terms of social cooperation. The WHO (2015, p. 34) provides a similar description of distributive justice, one that primarily requires equitable distribution of benefits and burdens. In defining justice, it ought to be noted that “fairness” is often closely associated as either a synonym or as an activity of justice. Beauchamp and Childress (2013, p. 250) claimed that the term fairness is historically and contemporarily used interchangeably by various philosophers to explicate justice. However, Goldman and Cropanzano (2014) argue that justice and fairness are related but distinct concepts whereby justice describes normative standards, such as adherence to a code of conduct, and fairness describes individuals’ moral reactions towards the normative standards (Goldman & Cropanzano, 2014).

As it relates to disaster ethics, fairness means that all victims should receive fair treatment and care in a disaster, including individuals with vulnerabilities and specific needs. More precisely, in a public health emergency, similarly situated individuals and groups should be treated similarly (Hodge et al., 2012). For medical treatment or care to be fair, it should be recognized as such by all persons or institutions who come under its effects, which include the victims, practitioners, and the humanitarian organizations involved (Institute of Medicine, 2010, p. 70). However, using this type of approach to treat people affected by disasters faces various challenges. For instance, a prioritization system organized around the principle of fairness could experience conflicts of care, especially in wartime when changes in care preferences are made to include local leaders, commanders, military personnel, blood relatives, friends, and healthcare workers over others.

As a disaster situation creates challenges for prioritizing medical care, it also creates challenges for managing competing priorities while preserving nondiscrimination, or in another sense, saving the most lives while preserving the principles of health equity and distributive justice. While there are different tools to assist in prioritizing care, they often face challenges in real-life disaster applications. For example, the Sequential Organ Failure Assessment (SOFA) score, which allows calculation of both the number and severity of dysfunction in the respiratory, coagulatory, liver, cardiovascular, renal, and neurologic systems, is used to determine treatment priority among patients. Evidence demonstrates, however, that this assessment creates potential bias during application (Jones et al., 2009) due to its lack of sensitivity during the classification of patients and dealing with the characteristics of ethnicity and race (Galiatsatos et al., 2020, p. 758). If an epidemic viral disease spreads more among particular ethnic groups within mixed societies, therefore, the SOFA assessment would not be able to capture this transmission and those populations would not receive proportional care (Galiatsatos et al., 2020, p. 759). By failing to allocate resources and care equitably, such a situation could lead to a greater spread of an epidemic among these communities and, should another conflict or disaster arise, conflict of care between the needs and individual rights within minorities and the collective needs of the population.

In the same context, the vulnerable and disabled are positioned to face a health care bias as these groups routinely need special, long-term care, which may be marginalized during emergencies. The emergency response itself requires immediacy and, as a result, could fail to address potential discrimination. For example, the COVID-19 pandemic highlighted pre-existing systemic problems within America's healthcare system that directly impact people with disabilities and created specific barriers to care during the pandemic (Guidry-Grimes, 2020, p. 28). Another potential source of discrimination arising from an emergency response could be related to staffing shortages, such as overburdened healthcare workers being unable to provide continuous bedside care in the hospital due to the growing urgent need in emergency, surgery, and other departments. Therefore, it is essential that, during disasters, the differences in treatment be based on appropriate differences among individuals, taking into account the needs of those most at risk while utilizing a just and equitable distribution of scarce resources (Institute of Medicine, 2012). Certain patient populations could otherwise be left to an agonizing fate because they cannot be justly saved, for example, critically ill and seriously injured patients whose rescue during a disaster could waste the necessary resources of others who can be saved (Larkin, 2010, p. 63). Culture is another critical factor to consider as different communities may have different priorities for allocating scarce resources in a catastrophic disaster (Institute of Medicine, 2012), and could cause conflict and disorder in the provision of care by volunteers from other cultures or foreign NGOs. Therefore, the involvement of community members, their stakeholders, and NGOs is essential to establish or modifying an ethical framework for disaster medicine. Moreover, moral norms and laws must be recognized and discussed while setting special considerations that meet the specific context and facilitate public engagement.

### 5.1.2 Neutrality

Neutrality is an ethical principle with various meanings and definitions from the political and philosophical sciences. For example, Haug et al. (1993) claimed that if an institution or a movement wants to be neutral, it should renounce participating in a conflict or altercation and abstain from any interference. But other definitions of neutrality related to medicine place an obligation to act on behalf of those in need. In another broad definition, Senyuta and Klapaty (2016) define medical neutrality as:

A human rights concept that provides for the protection and respect medical-legal relations subjects, guarantees safety of organization and provision of medical care both in times of armed conflicts and in peacetime, and obliges medical personnel to promote equal access to medical services and provide medical care to those in need, without discrimination on any grounds. (p. 50)

Furthermore, the ICRC explains that, while neutrality is equivalent to not taking sides in a conflict, it should allow an organization to set humanitarian principles that can be accepted and trusted by all parties in a conflict without demonstrating indifference (ICRC, 2015). Within this understanding, neutrality is therefore distinct from other ethical principles. It functions as an unbiased value that does not favor one of the parties in a conflict nor utilizes emotions to weigh decisions.

Additionally, according to the International Federation of Red Cross and Red Crescent Societies, neutrality as an ethical principle in disaster ethics is characterized by three elements (ICRC, 2014). The first element is the confidence of all, which means that applying neutrality should lead to confidence among the parties involved and promote operational efficiency. The second element is that organizations should avoid taking part in hostilities, and the third element is that they avoid engagement in political, racial, religious, or ideological controversies. Establishing a neutral framework for disaster medicine in a war situation, therefore, ought to facilitate the confidence of policymakers, practitioners, patients, and health organizations working in the field and help form a trustworthy and reliable ethical framework.

Neutrality can also be necessary to reach the victims on both sides of the conflict. The International Humanitarian Law, ratified by 196 countries in 1949, reinforced neutrality and the importance of non-interference in medical services provided to people in war zones (Bhuyan et al., 2016, p. 1). Medical neutrality is not only imposed on healthcare workers but also on governments and the parties involved in armed conflicts; thus, violating medical neutrality is considered a war crime punishable by law (Bhuyan et al., 2016, p. 1). However, over the years, blatant violations of medical neutrality continue without decisive action by the international community to stop these violations and hold those responsible for violating the principle of medical neutrality fully accountable. Significant measures are still needed to protect healthcare workers and medical facilities and maintain medical neutrality (Bhuyan et al., 2016, p. 1). The repeated destruction of medical facilities and services in Middle East conflict zones is one example of this clear disregard for neutrality agreements. In fact, Syria witnessed a tremendous amount of destruction and attacks on medical facilities since the beginning of the war, but by 2014, three years after the conflict began, the United Nations Security Council had issued only one resolution calling on all conflicted parties to end attacks on civilians and respect the principle of medical neutrality because it was paralyzed by political tensions (Heisler et al., 2015, p. 2491). Attacks on civilians and medical facilities continue to steadily increase in Syria (Heisler et al., 2015, p. 2491). Such challenges raise questions about the applicability of neutrality in all situations. Is it possible, for example, to maintain neutrality amid a prolonged conflict in which healthcare and humanitarian workers witness a brutal assault by one party against another? What if the workers themselves became a direct target of violence by one or both sides of the conflict? The war in Syria has forced aid workers to question their unwavering

stance on neutrality and impartiality (Toro & Wall, 2018, p. 63), and many healthcare workers sided with different groups of civilians (Toro & Wall, 2018, p. 63).

MSF executive director Dr. Belliveau addressed the challenge of applying the principle of neutrality into practice by giving an example of a problem that happened during MSF's work in Rakhine State in Myanmar (Lawson, 2018, p. 2). Members of the Rohingya minority group in Rakhine State have been subjected to ongoing oppression and persecution, resulting in dire medical needs and little or no access to medical care. Therefore, MSF placed its medical services in Rakhine State primarily in areas more accessible to the Rohingya because the needs in those locations were more significant. Although medical services were open to anyone, other communities in Rakhine state considered their medical services a violation of neutrality because of the location, and MSF was accused of taking a political stance in support of the Rohingya. As a result, the organization received numerous threats and the employees were targeted.

Neutrality presents other challenges related to advocacy in response to atrocities and war crimes. Some aid organizations argue that neutrality historically limits their freedom to speak out and advocate publicly on behalf of vulnerable civilians when human rights abuses occur (Humanitarian Policy Group, 2003). Another challenge arises in the event of a conflict between two competing ethical values, for example, choosing to remain silent for the sake of neutrality when it may be necessary to disclose information per the principle of transparency. According to R.L. Simon, "critics of neutrality argue that ... if neutrality is not an outright sham and illusion it is at best an abdication of moral responsibility and the obligation to operate in a morally appropriate manner" (1994, p. 97); despite this, however, neutrality prevails to make an essential moral case in some situations (Simon, 1994, p. 97), especially to secure care and treatment for those impacted by disasters.

### 5.1.3 Individual liberty

Individual liberty is often defined according to the actions toward and springing from an individual's sphere of control. For instance, Steiner (1975, p. 33) wrote that "an individual is unfree if, and only if, his doing of any action is rendered impossible by the action of another individual." In the philosophical tradition, freedom or liberty is described in a positive sense and a negative sense. To illustrate the disposition of these two senses, Isaiah Berlin posed two questions in his lecture at Oxford University in 1958 (Berlin, 2002). According to Berlin, the negative sense of liberty is the answer to the question, "What is the area within which the subject - a person or group of persons - is or should be left to do or be what he is able to do or be, without interference by other persons?" (Berlin, 2002, p. 169). In other words, liberty in the negative sense is the absence of external limits. On the side to this scenario is a positive sense of liberty, which is the answer to the question, "What, or who, is the source of control or interference that can determine someone to do, or be, this rather than that?" (Berlin, 2002, p. 169). The positive sense of liberty refers

to the right to self-govern, control over private life, and the ability to make or decide something. Other attributes of the concept of liberty include the importance of realizing oneself and having the ability to exercise freedom and being aware of one's own potential without fear of breaking any unauthentic internal barriers (Taylor, 1985, p. 214).

Individual liberty relates not only to external activity but also to internal thoughts and being able to speak those ideas freely. In this sense of liberty, the freedom of thought, John Stuart Mill claimed that respecting individual liberty also means not attempting to control the expression of opinion (Standrod Encyclopedia of Philosophy, Mill, 2017). Furthermore, Mill defended the liberty and freedom of character and action (Macleod, 2016). He argued that society and individuals should be given freedom and space to develop their personalities. A state of freedom from persecution or restriction is necessary to build any moral framework as this will help in judging ethical choices, recognizing biases, and avoiding misinformation.

Building up an ethical framework requires the unrestricted engagement of healthcare workers, organizations, and communities, but the complexity of emergency care and the crisis affect the rights and freedom of individuals. As Jennings and Arras (2008) stated:

Public health emergency preparedness is an activity conducted under the auspices of the state. It has an impact, not only on the health and safety of individuals, but also on their liberty, autonomy, civil and human rights, property, and other fundamental interests. (p. 11)

Therefore, building an ethical framework for disaster medicine requires balancing and addressing the rights and freedoms of individuals simultaneously; a dilemma arises, however, when the liberty of some compromises the liberty of others. Delineating individual liberty from community interest is still a matter of argument, one that contributes to the tensions toward measures protecting public health at the expense of some individual liberties.

This becomes apparent in the standard approach increasingly used by governments in the face of an emergency, especially ones that may result from disasters and armed conflicts. The rising tendency to tighten safety and security measures that protect public health has led some countries to adopt various national public health security models that emphasize emergency preparedness measures while abandoning or retracting fundamental human rights and freedoms (Annas, 2007, p. 1093). For example, the Patriot Act adopted in the United States after 9/11 has long infringed on civil liberties by allowing the government to spy on its citizens while bypassing due process (Nay, 2020, p. e238). Likewise, an anti-terrorism law adopted in France in 2015 led to the curtailment of civil liberties by limiting judicial oversight over security measures (Nay, 2020, p. e238).

Furthermore, most countries tend to tighten their restrictions on individual freedoms during disasters. According to Levine (2021, p. 154), at least sixty percent of governments have imposed problematic restrictions on individual rights during the

COVID-19 pandemic, and 17 countries have made substantial negative changes in this direction. These restrictions can include widely used public health measures, such as quarantines, mandatory screening and immunization, and health information sharing, which interfere with civil liberties to one extent or another (Puzio, 2004), raising the ethical issue of balancing public health measures during disasters with fundamental civil liberties. This balance is often complex, especially during the emergency period when the response pressures accelerate, the number of injured people increases, and quick decisions are needed as events unfold. Therefore, valid concerns arise related to a government's epidemic response in that it could lead to measures that go far beyond what is justifiable and continue beyond the crisis (Orzechowski et al., 2021, p. 146).

In 2007, the WHO provided guidance that the enjoyment of civil liberties could be restricted during a pandemic emergency to protect the public interest but that the restriction should be necessary, reasonable, proportionate, equitable, non-discriminatory, and entirely consistent with national standards and international law (Orzechowski et al., 2021, pp. 145-146). This notice is not considered binding on countries, and therefore individual countries are apt to interpret the guidance with varying measures and levels of restriction, leading to an international disparity in public health measures at the expense of civil liberties. As an example of this disparity, for instance, public health measures employed during the COVID-19 pandemic dramatically differed between European countries and China, where the latter used more restrictive isolation and surveillance methods for its citizens with drones, facial recognition cameras, and QR code technology (Nay, 2020, p. e238).

#### 5.1.4 Privacy and confidentiality

The concept of privacy is quite old in the history of humankind. In their article "The Right to Privacy," Warren and Brandeis formulated a serious attempt to convert the concept into not only a substantial value but as "the right to be left alone" in the late nineteenth century (de George, 2003, p. 41). A more comprehensive definition of privacy considers in more detail the relationship of the self with the external world:

The right to privacy is our right to keep a domain around us, which includes all those things that are part of us, such as our body, home, thoughts, feelings, secrets and identity. The right to privacy enables us to choose which parts in this domain can be accessed by others, and control the extent, manner and timing of the use of those parts we choose to disclose. (Yael, 2005, p. 12)

In medicine, the right to privacy also includes the right to protect personal information from disclosure. In other words, individuals have the right to disclose information about themselves and their health conditions selectively. Privacy also includes the right of individuals to decide whether they will receive certain information about themselves from a third party (Rothstein, 1998, p. 198). To provide a



more complete view of the issue of privacy from a bioethics perspective, Allen (1997) describes four categories of privacy:

When used to label issues that arise in contemporary bioethics and public policy, 'privacy' generally refers to one of four categories of concern. They are: (1) informational privacy concerns about access to personal information; (2) physical privacy concerns about access to persons and personal spaces; (3) decisional privacy concerns about governmental and other third-party interference with personal choices; and (4) proprietary privacy concerns about the appropriation and ownership of interests in human personality. (p. 33)

Another layer of understanding privacy as it relates to personal information comes from the significant development in internet and communication technology that led to greater facilitation in sharing information and data. Advances in the digital landscape resulted in the emergence of a new concept of privacy focused on the ability and right of persons to control the use and dissemination of their information and personal data by others (Clayton et al., 2019).

While similar to privacy, confidentiality more specifically considers "the right of an individual to prevent the redisclosure of certain sensitive information that was disclosed originally in the confines of a confidential relationship" (Rothstein, 1998, p. 198). Where privacy describes the need to implement measures that physically protect an individual's space, information, and decisions, in medicine, confidentiality indicates how personal information ought to be appropriately used and protected from misuse. Privacy and confidentiality are key factors for an ethical framework utilized in healthcare settings because they address patient's concerns of protecting their privacy, autonomy, and dignity (Clayton et al., 2019, p. 10); yet, for those affected by disasters at the center of the disaster framework, these principles are vitally important.

The literature highlights the importance of privacy in healthcare services, yet in general, it remains vague regarding what healthcare workers ought to do when disaster circumstances present challenges and limitations to protecting privacy. According to Lin et al. (2013), "respect for patient privacy and assuring patient confidentiality have been regarded as essential obligations of healthcare providers and primary responsibilities of healthcare institutions" (p. 1). The limitations of privacy are determined by factors such as cultural and societal differences, where each could recognize different privacy limitations, or by laws implemented for the sake of a community's safety requiring circumstantial breaches of privacy. For example, the American Code of Ethics for Emergency Physicians states that "emergency physicians shall respect patient privacy and disclose confidential information only with the consent of the patient or when required by an overriding duty such as the duty to protect others or to obey the law" (2017, p. e17), providing direction for physicians who find themselves in a circumstance with conflicting duties related to individual patient privacy and protecting the safety of others under the auspices of the law.

Still, the justifications for breaching individual privacy and confidentiality to protect others, particularly during an emergency period remain a controversial issue, resulting in questions such as: To what degree can privacy be acceptably breached to protect others? What type of data can be disclosed? How can these data be correctly used? How often is consent required? And who can make such a decision? Because disasters result in overwhelming situations, meaning, the urgent need outsizes available resources, it becomes practically challenging to maintain the principle of privacy, especially in emergency stations with too many victims in critical condition and a shortage of medical staff, facilities, and private rooms. Studies demonstrate that, in emergency medical settings, frequent breaches of privacy and confidentiality occur (Lin et al., 2013), and as ethical principles, confidentiality and privacy are either neglected or cannot be secured (Civaner et al., 2017). Kasule (2011) described what the situation might look like in such a crowded emergency room: “It is difficult to observe the normal procedures of confidentiality because the few healthcare givers are taking care of several patients at the same time in a confined space and in the presence of relatives and other accompanying persons...” (p. 80). Therefore, maintaining privacy and confidentiality during disasters and wars presents severe challenges that require further research, planning, and appropriate policies.

### 5.1.5 Fidelity, loyalty, and respect

The word fidelity comes from the Latin root “fides”, which means “faithfulness” (Purtilo & Doherty, 2011, p. 87). According to Vollman et al. (2012, p. 31), fidelity emphasizes faithfulness and loyalty, keeping promises, and sincerity in relationships. This definition of fidelity correlates to the idea of loyalty and, when used generally, is used as a synonym for fidelity, whereas Gérard et al. (2016, p. e810) define loyalty as the quality of a continuous feeling and an attachment consistent in feelings, emotions, or habits. As an ethical principle, however, fidelity is described in stronger terms as an “obligation to act in good faith to keep vows and promises, fulfill agreements, maintain relationships, and discharge fiduciary responsibilities” which is affirmed by other ethical principles such as respect for autonomy, justice, and utility (Beauchamp & Childress 2001, p. 312). In medical professions, fidelity in application equates to effectively building trust between healthcare workers and patients. It is, therefore, an essential aspect of providing health care because communities expect healthcare workers, in an unspoken arrangement, to commit themselves to care, respect dignity and equity, work appropriately and effectively, and keep promises (Morrison, 2016, p. 41). Fidelity thus extends from being a moral duty to becoming a right of all patients and must be respected (Morrison, 2016, p. 41).

As both a moral duty for healthcare workers and a right for patients, fidelity places expectations on healthcare workers to treat patients with respect, possess competency in providing health care, adhere to a professional code of ethics, follow the policies and procedures assigned by the health institution and the laws, and honor any agreement made with the patient (Purtilo & Doherty, 2011, p. 87). These

expectations influence how patients are cared for and the quality of their treatment. However, maintaining fidelity and loyalty during critical times does not come without difficulties, challenges, and moral disputes. Healthcare workers, for example, may be torn between what they believe is a valid medical procedure and what the patient wants or what the organization's policies dictate. In addition, there are legal requirements and rules for the profession, adding other complications to the issue of providing individual patient care. So, while fidelity ought to be an essential ethical principle in forming a moral framework for health care, in the event of an emergency or disaster, its application is not always straightforward.

Furthermore, in the case of emergencies, crises, and disasters, healthcare workers are expected to keep commitments and stand by the patient, but it is not clear when this expectation cedes to protecting their own safety. The Institute of Medicine describes that “[i]n situations where risks are to some degree unquantifiable, uncertain, and unknowable, and so cannot be well managed in advance, the principle of fidelity has been proposed as a promise to stand by after” (2014, p. 126). However, to what extent healthcare workers are expected to stay loyal and keep promises while considering the personal risks they could encounter while providing patient care is still a matter of debate. Communities are expected to support healthcare workers who take considerable risks to help the community by providing protection and mitigating the dangers surrounding them. The Institute of Medicine argues for this concept by stating “the principle of fidelity recognizes that individual sacrifices made for the benefit of society may give rise to societal duties in return” (2014, p. 128).

Bringing in the role of community presents another challenge for healthcare workers who must balance loyalty and fidelity with the individual patient and with the community. For example, fidelity to the community can take precedence over fidelity to an individual during periods of epidemics, disasters, and associated public health measures (Morrison, 2016, p. 41). This dual loyalty stands at the center of most ethical dilemmas facing healthcare workers during a disaster. Dual loyalty also applies to military medicine, where healthcare workers have additional commitment and obligations to the military for which they work. Healthcare workers in this situation are often torn between their duties of care towards the patient or their support for military objectives, which can lead to moral and legal consequences for both parties (London et al., 2006, p. 381). Therefore, addressing this issue of dual loyalty is extremely important and can be done, for example, by paying increased attention to potential human rights pitfalls and by establishing a mandate to deal with endangered human rights laws and principles (London et al., 2006, p. 381).

### **5.1.6 Beneficence and nonmaleficence**

The principle of beneficence includes any act aimed at benefiting others, such as acts of mercy, kindness, charity, altruism, love, and humanity (Beauchamp & Childress, 2013, pp. 202- 203). According to a training manual on ethics in epidemics

published by the WHO, beneficence is defined as “the moral duty to pursue actions that promote the well-being of others and the ethical obligation to maximize benefit and to minimize harm” (2015, p. 34). This principle imposes a duty on the healthcare workers to promote the good and prevent or remove any harm that can affect their clients including minimizing pain and suffering, treating sickness, preventing disability and death, and supporting their well-being, health, proper functioning, and life (Snyder & Gauthier, 2008, p. 12).

Beneficence is a guiding principle in disaster triaging and when providing health services during disasters and early response phases (Karadag & Hakan, 2012). For instance, allowing a prolonged waiting period for emergency treatment may lead to a deterioration in a patient’s condition, which is inconsistent with the principle of beneficence and would therefore alter the way patients are prioritized (McClelland, 2015, para, 11). Karadag and Hakan (2012) argue that the principle of beneficence holds the highest priority in not only the triage situation but also in the distribution of limited medical resources during disasters. If a clinician continues to provide emergency treatment to a patient considered to be “beyond emergency care,” given the severity of the injury and that its treatment exceeds the capabilities and resources of the medical team. The clinician thus misused scarce resources, ignored the priority in triage, and wasted a critical time treating the rest of the injured in the emergency department. This is echoed by the WMA General Assembly’s guidance that “[i]t is ethical for a physician not to persist, at all costs, in treating individuals “beyond emergency care”, thereby wasting scarce resources needed elsewhere” (2020). Beneficence also motivates “good samaritan” actions that encourage emergency physicians to render aid during and after disasters without the expectation of compensation (Iserson, 2006, p. 525).

Yet appropriately defining what is “good” or “prevents harm” is complicated as beneficence could compete with other ethical principles, such as respect for autonomy and justice, especially in the context of emergencies. Consider, for example, withdrawing artificial ventilation from a patient in a persistent vegetative state (PVS) during a mass equipment shortage. The patient’s family could consider the ventilator to be good or in the best interest of the patient because it is preventing death; on the other hand, a physician could determine that continued life support leads to pointless suffering and, given the equipment shortage, ought to be removed from this specific patient (Snyder & Gauthier, 2008). Here, the principle of beneficence, which aims to provide medically beneficial treatment for the patient according to the doctors’ assessment, directly conflicts with patient autonomy. In fact, “whether respect for the autonomy of patients should have priority over professional beneficence directed at those patients” represents “a central problem in clinical ethics” (Beauchamp & Childress, 2013, p. 214) exacerbated under the pressures of scarce resources and shortages. In another challenge, tension may arise between the principles of beneficence and justice in cases of mass casualty, where palliative care is provided to patients with no hope of survival and limited medical resources are

reserved for those with survivable injuries (Pingree et al., 2020, p. 353). According to Pingree et al. (2020), this issue can be addressed by resorting to a utilitarian philosophy so that the greater benefit should be for the larger number.

Distinct from beneficence yet often closely correlated, nonmaleficence is an obligation of doing no harm. It is an important principle in Islamic morality, where “doing harm and reciprocating harm is not allowed and harm should be warded and avoided as much as possible” (Al-Bar & Chamsi-Pasha, 2015, p. 119). For healthcare workers, nonmaleficence is specifically the duty to refrain from inflicting harm to patients, whether physical, psychological or financial harm (Institute of Medicine, 2014). Sometimes harm occurs to promote the best interest of patients, for instance, when it is part of a treatment plan or medical procedure for curative and positive health goals. This does not constitute a violation of the nonmaleficence principle because it is for the “presumption of compensatory benefit” (Wagner & Dahnke, 2015).

When providing emergency medical care, however, the benefit of a procedure often carries the potential for significant complications, side effects, or other harms (American College of Emergency Physicians, 2017, p. e19) since these interventions take place at a critical moment. Controversies arise when patients are harmed due to specific medical interventions intended to preserve life (Snyder & Gauthier, 2008). For example, cardiopulmonary resuscitation (CPR) is one of the most common emergency medical procedures, but despite the potential benefit of CPR, there are potential harms associated with unsuccessful resuscitation efforts (Mohr & Kettler, 1997).

Successful CPR can restore heart functions but is also often accompanied by varying brain damage due to lack of oxygen, with the more severe cases leaving survivors in a state of comatose that could extend for months or years. Thus, CPR is associated with poor survival rates or inferior outcomes, prompting an ongoing debate about the futility of resuscitation (Mohr & Kettler, 1997). However, Mohr and Kettler (1997) suggest that the problem of futility should be determined with a high degree of certainty before withholding emergency care to provide enough room for any possible chance of survival.

In a similar way, it is important to consider how beneficial actions in humanitarian aid and medicine could result in harmful effects or consequences. Civaner et al. (2017, p. 8) outline circumstances where disaster victims were harmed through relief activities, most caused by poor preparation, misallocation of resources, and diminished access to required services. As an example, failing to rapidly identify the necessary resources for appropriate treatment with a standardized method, such as an organized health assessment, can lead to bottleneck disorganization where the resources are accumulated in one place and unavailable in another, hindering care and causing avoidable suffering and death. Volunteerism, the motivation of heroic feelings and altruism, can also be counterproductive and problematic when it leads to higher-risk behavior and thus malpractice (Civaner et al., 2017, p. 8). Malpractice, in this case, could occur if volunteers without basic experience, skills or sufficient

specialization in emergency medicine administer emergency medications or perform emergency interventions. Therefore, “good intentions” are not without dangerous corollaries when rescue efforts by untrained are ineffective and endanger patients or the rescuers (Aacharya et al., 2016, pp. 25-26).

Furthermore, in disasters and accompanying emergencies, protecting healthcare workers from danger is just as crucial as preventing harm to patients. Balancing the two, however, leads to questions about how healthcare workers or health entities must act to reduce risk and secure their own safety so that they can meet their obligations of providing care for others (Institute of Medicine, 2014). If there is no set limitation of acceptable risk for fulfilling their duty, this may lead to excessive and potentially fatal demands on healthcare workers. They could be expected, for example, to consider foremost the circumstances of the victims or to excessively work toward preventing negative consequences for their patients without any parameters that protect themselves (Akabayashi et al., 2012, p. 697-698). This can occur for healthcare workers who must continue providing care in field clinics vulnerable to direct and sudden military attacks, with the expectation that the clinic will be bombed.

Under these considerations, from the difficulty in defining “good” to the lack of definitive parameters between patient and healthcare worker safety, the principle of beneficence generally represents an obligation of limited application in disaster settings. Nevertheless, because of its primary importance, factors can be used to determine the limitations of beneficence and nonmaleficence, such as assessing the urgency of the situation, the severity of the consequences if nothing is done, the ability of the organization or the healthcare worker to prevent such dire consequences, and the appropriate sacrifice they must make (Akabayashi et al., 2012, p. 698).

### 5.1.7 Solidarity and unity

Solidarity has recently gained considerable interest in biomedicine and is increasingly introduced as a governing principle for disaster and global health ethics. The pre-modern understanding of solidarity was a selfless love of neighbor and is the origin of the terms “brotherhood” and “sisterhood” and the phrase “*um por todos, todos por um*” [one for all, all for one] (Westphal, 2008, p. 44). This selfless love implies a desire to recognize social bonds with others in the same community. Modern definitions introduce additional dimensions beyond selflessness, such as openness and generosity towards others and putting other’s interests first without expecting anything in return (Petrini, 2010, p. 141). Some argue, however, that solidarity requires a certain level of indirect reciprocity (Prainsack, 2020, p. 125). This is especially important to consider in the context of disasters where solidarity is not a single interaction but is part of a social or political fabric where institutions intervene on behalf of an affected community (Prainsack, 2020, p. 125). B. Prainsack explains the necessity of reciprocity as an element of solidarity because it

strengthens when the people contributing to the solidarity arrangements know that someone or some entity will support them whenever needed, now or in the future (2020, p. 125).

Prainsack and Buyx define solidarity as “enacted commitments to accept costs to assist others with whom a person or persons recognise similarity in a relevant respect” (2017, p. 42). These enacted commitments and the principle’s essence of selfless love primes a relationship of unity between people who identify themselves as subject to the same threat and therefore promote mutual support, playing a crucial role in disasters. In one of its reports, the Nuffield Council on Bioethics (Prainsack & Buyx, 2011, p. 37) argued that solidarity often comes to the fore within a society or country at times of war or natural disaster. This is supported further by evidence from the literature: for instance, E.O. Afolabi notes that disasters usually raise the spontaneous solidarity that enables people to set aside their self-interest and seek cooperation (2018, p. 161), and Prainsack argues that solidaristic institutions increase the resilience of societies in times of crisis (2020, p. 130).

Solidarity is an essential factor in establishing an ethical framework in disasters and emergencies, which requires mutual support and work of the community, stakeholders, healthcare workers, and health organizations. The mutual support resulting from solidarity creates sensitivity to the plight of others, facilitates immediate action, and reduces obstacles when responding to disaster challenges (Afolabi, 2018, p. 163). Some critics argue, however, that solidarity in the aftermath of disasters may lead to a paternalistic approach that results in disappointment, accusations, and even litigation; nevertheless, good planning and ongoing monitoring of the use of authority and power during the implementation of emergency plans can help mitigate this issue (Jennings & Arras, 2008).

More specifically in medicine, Brody and Avery (2009, p. 41) identify three levels of solidarity: between fellow healthcare workers, between healthcare workers and the community, and between the community and its most vulnerable members. Responding to the health needs of those impacted by large-scale catastrophes and wars, therefore, requires a more robust application of solidarity for healthcare workers, one representing global solidarity and unity among nations. International solidarity and unity are linked to the universality of the catastrophe, the fact that disaster consequences do not follow state lines, and the inherent bond of humanity between peoples. Solidarity between fellow healthcare workers must also include colleagues of the same profession regardless of workplace or country boundaries. For example, physicians have called, on an international scale, for solidarity with healthcare workers in Syria whose workplaces and patients remain under constant threat and attack (Burkle et al., 2017), demonstrating that solidarity imposes a type of professional commitment that emphasizes the importance of applying international humanitarian law and protecting and preventing the targeting of hospitals and medical facilities.

Many scholars and writers, however, have long overlooked solidarity as a moral value with utility in ethical frameworks, especially in the field of public health ethics.

For instance, Dawson and Jennings (2012) conducted a review of publications relating to ethical issues in public health policy and practice between 2002 and 2012 and found that solidarity was rarely mentioned in these publications. In differentiating solidarity from other ethical values, Dawson and Jennings highlight its importance in public health ethics as a foundation for many ethical principles, saying, “[w]e hold solidarity to be a deep and enmeshed concept, a value that supports and structures the way we in fact do and ought to see other kinds of moral considerations” (2012, p.73). Solidarity accomplishes this by “standing up beside”, “standing up for”, “standing up with” and “standing up as” as a relational component between an individual and others (Dawson & Jennings, 2012). These four dimensions create the opportunity for public advocacy and action that is driven by sympathy, understanding and mutuality, not out of expectations but rather moral concern for others. This cooperative and shared participation in the common good represents the power of solidarity in disaster ethics and public ethics in general (West-Oram & Buyx, 2016, p. 213).

Thus far, solidarity has been described as an ethical principle on its own, requiring a relationship (between the self and others) for its application. Yet the magnitude and direction of actions done in solidarity, such as accepting the costs of helping others, are guided by internal and external empathy. Inner empathy, or empathy directed towards the self, often precedes compassion for others during crises and disasters, like when flight attendants ask passengers to fix their gas masks first in an emergency before helping their children (Afolabi, 2018, p. 160). External empathy is formed on various levels that depend on several criteria, including kinship. The implication of this during disasters is that people may first empathize with those closest to them, such as their families, their neighbors, or the people of their city and country. Because social narratives emphasize relationships with fellow group members over those with distant others (West-Oram & Buyx, 2016), people are often more solidaristic to their own groups based on tribe, religion, race, customs, or other aspects of identity.

While empathy is necessary for solidarity, in this regard, it presents challenges for rescuers and healthcare workers who must contemplate the difficult choice of who to help. Consider, for example, an emergency paramedic rescuing a group of injured people and finds his son, co-worker, or a member of his tribe among the wounded during prioritization; here, his empathy for those he shares a bond with may negatively influence triaging. To re-direct this instinctive approach, West-Oram and Buyx (2016) propose shifting the perception away from obvious features of identity and toward finding commonalities such as specific goals, shared experiences or situations of oppression, or exposure to similar risks. Moreover, Afolabi (2018, p. 163) argues that pre-disaster ethical training could help foster selflessness and enhance healthcare workers’ decision-making process in disasters to improve the quality of care during challenging times.



### 5.1.8 Reciprocity

Reciprocity is the principle of people deserving an equal return for what they contributed to an institution or society (Sofaer, 2013, p. 457). The concept of reciprocity is universally found in moral codes, religious traditions, and theories of justice that postulate a social contract (Koch & Hoffmann, 2021, p. 6). It is mentioned in the Quran, for example, that he who does good deserves in return to receive good, and “is there any reward for good other than good?” (Hilālī & Khan, 1997, Surah Ar-Rahman 55:60, p. 731). Across moralities and societies, reciprocity generally refers to the exchange of benefits.

Importantly, reciprocity is often associated with other ethical principles, such as beneficence and nonmaleficence. Pelaprat and Brown define reciprocity as “a return–action in a broader context of exchange, where an initial giving necessitates a return”, further arguing that the person acting out of generosity to recognize someone else in the first place deserves to be well recognized (2012, para. 3). In this sense, reciprocity also indicates a mutual relationship that tells us to treat others the way we would like to be treated. To this end, Becker describes reciprocity as an action “to return good in proportion to the good we receive, and to make reparations for the harm we have done” (1986, p. 3). What makes Becker’s definition distinctive here is the idea of not returning harm where harm has been done and reconciling any damage done. Therefore, responding appropriately to good or evil is a crucial element of any reciprocal action. A reciprocal action should consider making a fitting and proportional return for the contributions others have made.

The literature also demonstrates that reciprocity in relationships is critical to maintaining individuals’ physical and psychological well-being (Pandit & Nakagawa, 2021, p. 3), and specifically in times of crisis, helps to reduce stress (Thompson, 2009, p. 83). As noted in the previous section, reciprocity can help create mutual awareness between groups and enhance a spirit of solidarity to positively deal with painful or stressful situations, but Thompson also argues that much of people’s self-esteem comes from a sense of “usefulness” related to the ability to reciprocate and benefit others (2009, p. 73). Therefore, he considers reciprocity as a social factor contributing to a holistic sense of well-being as it plays a role in empowering people and shaping their ability to deal with unexpected events (Thompson, 2009, p. 84).

Yet in times of disaster, many individuals who must place themselves in severe danger out of a professional obligation face disproportionate burdens for the benefit of others. According to Viens, “reciprocity requires that we take measures to support those who face a disproportionate burden in protecting public health and employ further steps to minimize the impact of this burden for those individuals and their families, as far as possible” (2008, p. 1); meaning, reciprocity requires the state or public health institutions to bear certain obligations when imposing a burden on patients and healthcare workers. In the Arizona Code of Public Health Emergency Ethics, for instance, measures used to support those who face a disproportionate burden (including financial and logistical burdens) ought to take the form

of protection, such as first providing protective interventions (e.g., vaccines or protective equipment) to essential personnel like healthcare workers, emergency first responders, and others who perform essential emergency functions and care (Hodge et al., 2012). This can also include measures designed to reduce risks to healthcare workers, care for them in the event of illness, reduce malpractice threats, provide compensation, give appropriate community recognition, and secure the necessary insurance coverage (Koch & Hoffmann, 2021, p. 6).

Healthcare workers in war zones, however, experience a double-layered sacrifice as they serve on the front lines of conflict and thus risk their lives and the lives of their families in areas vulnerable to military attack. To address the sacrifices made by these workers, some ethicists have suggested placing meaningful limitations on the “duty to care” for healthcare workers who take risks beyond their contractual and social responsibilities (Ni et al., 2020, p. 438). Others argue that healthcare workers should have priority during triage or accessing equipment such as ventilators (Antommara, 2020, p. 285). While being prioritized in exchange for sacrifice may have advantages for healthcare workers, it can also be influenced, or have the appearance of being influenced, by self-interest (Antommara, 2020, p. 285). Given the complexity of establishing both ethical standards for priority setting and constraints on the duty to care, then, reciprocating duties towards healthcare workers in disasters and wars remain a contested issue.

Furthermore, per the Arizona Code, support and protection must also be provided for individuals placed under restrictions for the public good (such as quarantine or social distancing measures) in accordance with the degree of interference (Hodge et al., 2012). For example, if the state implements a stay-at-home order due to a natural disaster or a mandatory quarantine period during an infectious disease outbreak, the state should award individual compensation for missed working days. Nevertheless, even when mechanisms for compensation are established, sufficient and equitable benefits rarely reach all citizens who are vulnerable or in greater need (Ni et al., 2020, p. 438).

Because reciprocity by a state or institution toward its individual members is not always reliable, Ni et al. suggest that effective public health crisis responses instead must depend primarily on people engaging in good behavior without an obvious reward (2020, p. 451). Here, mutual aid between people during a crisis period ought to be considered the basic practice of reciprocity and as a critical supplement to the state’s reciprocal measures (Ni et al., 2020, p. 438). However, there are disadvantages to this approach. For example, it may be challenging to identify individuals receiving assistance yet failing to provide help in return. Thus, the sacrifices made by citizens engaging in reciprocal behaviors may make them vulnerable to neglect and exploitation (Ni et al., 2020, p. 438). It is also possible that mutual aid between people during a crisis period may cause unintended harm (Ni et al., 2020, p. 438). Consider, for example, if untrained individuals tried to pull an injured person from under the rubble of a house; this behavior would likely result in additional injury to the wounded person (e.g., spinal injuries) or even to those attempting the rescue.

At the same time, preventing these behaviors could also impede vital assistance during a disaster that created a shortage of skilled human resources and capabilities.

Another critique to the concept of reciprocity identified in the literature relates to the extent of proportional return and the obligatory sense of this principle. Since it is not always possible to return the same amount of good (e.g., receiving a body parts donation versus a public health benefit), it leaves the door open for different compensation levels and thus promulgates criticisms related to fairness and equity. For example, what counts as a fitting and proportionate return? Silva et al. (2016) address this criticism by arguing that the returns need not be precisely proportionate if the cost of returning the benefit is so high as to damage the person who must reciprocate or if it is impossible to reciprocate. Others suggest that reciprocal action should be based on two basic criteria, appropriateness and proportionality (Koch & Hoffmann, 2021, p. 6). Appropriateness requires consideration of what the other party would want, and proportionality is about commensurate to the risk or costs the party is undertaking (Koch & Hoffmann, 2021, p. 6).

### 5.1.9 The duty to care

The duty to care principle is a special obligation for healthcare workers to provide care in times of disaster and represents an essential aspect of the disaster response. This commitment emerges not only from the professional oaths and codes of the medical profession toward individual patients but also from a reciprocal duty to society. This means that society, in exchange for the social support provided during and after their education and practice, and because of their special training and commitment they have made to help others, claims a reciprocal duty from healthcare workers.

However, during times of disaster, this responsibility often faces competing duties compounded by the risks healthcare workers are exposed to while providing health services. For example, physical risks to personal safety during medical and emergency work occur in times of earthquakes, floods, chemical or nuclear disasters, infections, and epidemics. During war and civil conflicts, where hospitals and medical facilities can be directly exposed to explosions and bombardments, the risks that healthcare workers face are more dangerous than in other disasters (O'Mathúna, 2019, p. 186). In this context, healthcare workers could suffer legal consequences (i.e., imprisonment), threats, or even death if they are viewed as aiding an enemy by providing care to parties involved in armed conflict. Not all risks, however, are tangible; for instance, stigmas create risks for healthcare workers during epidemics and wars. During the COVID-19 pandemic, for example, nurses widely experienced prejudice, eviction, and hostility from laypeople who believed they carried infectious diseases into the community (Zhu et al., 2020, p. 4).

Because the duty of care is intertwined with other professional obligations, determining how to apply this principle in disasters often leaves healthcare workers with more questions rather than answers. According to Simonds and Sokol (2009),

physicians are subject to five competing duties during crises that also interface with the duty to care, which are: a duty to patients, a duty to protect themselves from undue risk of harm, a duty to their family, a duty to co-workers, and a duty to society. Therefore, when healthcare workers and health facilities become a target during wars and armed conflicts, and the decision to provide medical care could result in fatal consequences, to who should clinicians direct their duty of care? This represents a frequently cited conflict between the healthcare workers' responsibility toward their patients, colleagues, and society versus their duty to protect themselves and their families from harm. For example, do healthcare workers have a duty to care for their patients even if it exposes them personally and their families to significant risk and harm? What is an acceptable level of risk and who should decide? How do moral values affect this decision?

One way to address these important questions is to consider that maintaining the safety of healthcare professionals is essential for the success of any healthcare system during disasters and emergencies. The Australian Medical Association's ethical guidelines state, for example, that even though physicians have an obligation to care for their patients, they also must protect themselves, their families, other patients, staff, colleagues, and the broader public from harm (Zubaran & Freeman, 2021, p. 180). Nevertheless, because the duty to care is multi-faceted, it inherently complicates the issue of securing safety and care during conflicts.

In fact, some healthcare workers may show heroism and altruism and continue to work despite the risks to themselves, such as the great sacrifices made by healthcare workers during the SARS outbreak, according to a report from the University of Toronto (O'Mathúna, 2019, p. 186). Another example of this is demonstrated by the White Helmets organization, a group of volunteers for emergency relief who put themselves at various risks to rescue those injured by chemical and explosive devices in Syria (O'Mathúna, 2019, p. 186). These volunteers describe their work as a humanitarian duty that cannot be undone until death (Toro & Wall, 2018, p. 62). Their slogan, "whoever saves one life, saves all of humanity", captures the religious drive behind their work (O'Mathúna, 2019, p. 186) as it is derived from the Quranic verse, "[a]nd if anyone saved a life, it would be as if he saved the life of all mankind" (Hilālī & Khan, 1997, Surah Al-Ma'idah 5:32, p. 148). Resorting to religious and cultural dimensions as a way to enhance the values of heroism and altruism among disaster responders is commonly observed and one way healthcare workers resolve the duty to care.

Yet on the other side, some healthcare workers leave their profession entirely due to working risks. Disasters often lead healthcare workers to question their career choice (Ruderman et al., 2006), and in the event of SARS-like crises and pandemics, others decide to leave the healthcare profession because of the increased occupational risk. However, refusing to provide healthcare during public health emergencies represents a direct conflict with professional obligations and brings widespread condemnation from the public and other health professionals (Zhu et al., 2020, p. 4). In some cases, as noted by the WHO, healthcare workers unwilling

to accept reasonable risks and work assignments during infectious disease outbreaks might be subject to professional repercussions, for example, losing their job (2016). While additional punishments, such as fines or imprisonment, are generally unwarranted, healthcare workers and organizations lack guidance in this matter due to the complexity of the situation, the contextual, personal, cultural factors involved, and the competing values and duties. The code of practice in the health professions has remained mostly ambiguous in matters relating to the duty to care when healthcare workers are exposed to significant risks (Zubaran & Freeman, 2021, pp. 180-182). Moral education and training represent an essential role in preparing healthcare workers for disasters. In the absence of successful preparation, healthcare workers may not be aware of or ready to perform their obligations during such complex situations.

Some argue that healthcare workers' duty to care is a moral duty toward their patients first and foremost because, as it overlaps with the principle of beneficence, they must act in the best interests of their clients and community. Iserson et al. (2007), for instance, consider the duty to care at the time of crisis as a significant moral duty and, for prominent social reasons, urge healthcare workers to stay and treat patients even if they are at risk. They argue that social stability could deteriorate without healthcare workers, leading to wide-ranging social consequences, especially when the public learns that these workers have abandoned their professional roles (2007, p. 346). Moreover, Iserson et al. claim that "health care professionals arguably are not required to assume suicidal risks to care for patients, but there appears to be no uncontroversial way to establish a threshold at which risk acceptance becomes a duty" (2007, p. 348).

Still, risk acceptance is subjectively based on the contextual features of a disaster and personal moral values, and therefore debate remains open about what is an acceptable level of risk for healthcare workers if they treat patients and place themselves at risk of harm. Malm et al. (2008) revealed that the upper limits of a risk threshold cannot be identified in the abstract but rather depend on the source and type of the duty (e.g., to what, exactly, did the healthcare provider agree?) and on the presence of conflicting responsibilities. Using a form of triage could be helpful in delineating the limits on the duty to treat any given person in a crisis (Malm et al., 2008). To illustrate this, Malm et al. (2008) explain that paramedics do not have a professional obligation to enter a building on the verge of collapse to provide aid to someone inside. This is because, if the paramedics are seriously injured or killed while doing so, it will cause a direct loss to society and may even divert resources of treatment and support (Malm et al., 2008).

Even though the duty to care is a professional duty, Bernstein (2010) claims that in emergencies and crises the duty must be recognized voluntarily by healthcare workers. Bernstein assumed four factors for establishing an obligation to provide care, which include the patient's degree of need, the physician's proximity to the patient, the physician's capabilities, and the absence of other sources of aid (2010). O'Mathúna suggests a return to moral virtues and ideals, such as courage, heroism,

volunteerism, altruism, compassion, and commitment to the good of others, to fulfill obligations arising during crises (2019, p. 193). These ideals and moral virtues are supposed to help healthcare workers foster a reliance on personal integrity and conscience to balance the duty to care with other responsibilities (O'Mathúna, 2019, p. 194). While it is admirable to approach medical ethics from a heroic perspective, it may not be sustainable or robust enough to handle the complexity of emergency conditions (Fins & Miller, 2020, p. 1243). Fins and Miller argue that the heroic perspective is also unfair because it may assume that healthcare workers should bear a disproportionate share of the burden, which must be distributed more widely (2020, p. 1243).

Amid these conflicting views arise another critical question regarding the role and responsibilities of health institutions and the duty to care. Iserson et al. (2007) consider healthcare institutions as forces that can strengthen the moral grounds for a duty to care by creating effective disaster plans, embracing reciprocal duties to minimize occupational risk, and providing well-rounded support to their healthcare workers in crises. Simonds and Sokol (2009) assert that treating medical staff fairly and justly while providing training, counseling, and psychological support are also critical reciprocal duties hospitals owe to healthcare workers. In addition, it is essential that institutions establish specific policies on the duty to care within jurisdictions through dialogue and consultation with all concerned parties, including the public; moreover, these policies must be based on the best available evidence, including data collection on the effectiveness of various approaches, policies, and medical and ethical recommendations (O'Mathúna, 2019, p. 192). Furthermore, the Institute of Medicine (2012) acknowledges the vital role of healthcare institutions in preparing an ethically robust disaster plan, which allows the emergency workers to meet personal obligations so they will also be able to meet professional commitments.

### **5.1.10 The duty to steward resources**

Disasters by nature usually place more demand and strain on the healthcare institutions than during times of routine, standard care and thus create a deficit of valuable resources such as vaccines, medications, ventilators, oxygen supplies, hospital beds, and even healthcare workers. Therefore, stockholders and healthcare workers find themselves confronted by the duty to manage and steward these resources during times of crisis. The duty to steward resources requires healthcare workers to do their utmost to reach the best outcome for the maximum number of patients with the resources that are available (Hick et al., 2011, p. 181). Decisions that involve the allocation of resources and the prioritization of services during disasters are daily decisions, but war conditions cast additional challenges for resource management. For example, during the war in Syria, hospitals and medical services were systematically targeted, which led to a severe shortage of resources and extreme demand, putting healthcare workers in front of complex challenges to allocate health care.

The effective management of scarce resources entails other sub-duties and activities, such as the duty to plan, develop a triage allocation plan, and make a recovery and restore plan for the post-disaster phase (Hodge et al., 2012). Planning helps healthcare workers increase their ability to respond when disasters occur and to manage the sudden increase in the number of patients. Hick et al. recommend a list of strategies for utilizing resources when anticipating or facing shortages, including appropriate preparation, conservation of resources by restricting their use, substituting functionally equivalent drugs or devices, reusing and adapting available resources, and reallocating certain essential resources to patients who are most likely to benefit from them (2011, p. 179). Moreover, the American Medical Association developed a standard for making allocation decisions, including what determining factors should and should not be considered (Hick et al., 2011, p. 181). Factors that should be considered and incorporated in the decision-making include the likelihood of benefit and its duration, the urgency of need, and the number of resources required. Factors that should not be considered are race, sex, social worth, ability to pay, perceived obstacles to treatment, patient contribution to illness, and past resource use.

The duty to steward resources is absolutely necessary for ethical frameworks utilized during disasters because poor resource management and misallocation of scarce resources can increase morbidity, mortality, and injustice (Institute of Medicine, 2012). In fact, the American College of Emergency Physicians (2017) describes a dual obligation for emergency physicians to allocate resources prudently while honoring the importance of the patient's best medical interests. Utilizing resources prudently while maintaining quality care, however, often presents difficult choices for physicians and healthcare workers.

Daniel (2012) represents this issue through the example of a physician who worked in the intensive care unit at a hospital in Port-au-Prince, Haiti, immediately following the 2010 earthquake. With only one oxygen tank and four patients in need, the physician had to make an allocation choice between a 15-year-old girl neurologically devastated; a 40-year-old woman living with HIV, complex chest morbidity, and three children at her bedside; a 25-year-old nurse who was three days' post-op from major bowel surgery; and an 18-year-old girl with acute decompensated heart failure. The decision to allocate the oxygen tank produced intense emotional distress yet had to be made quickly. The physician provided the oxygen tank to the 25-year-old patient based on long-term survivability and likely resource consumption due to the patient's current, pre-existing, and co-morbid conditions. Despite these justifications, the physician was still unsure if she made a medical judgment based on a co-morbidity or a value judgment based on her own latent biases. This complex example demonstrates that the duty to steward resources overlaps with issues of justice and but also moral and emotional distress. For instance, healthcare workers report experiencing moral and emotional distress when relocating ventilators or stopping life-sustaining treatment as it feels, under the circumstances, akin to killing a patient (Morley et al., 2020, p. 38).

Triage, which is the first line of assessment and prioritization of care and treatment, also determines how available resources will be allocated. Yet no clear method for prioritizing treatment between patients is provided in the literature. It is established, at minimum, that patients whose condition has worsened significantly or who do not require immediate and substantial medical care or can be treated later are usually excluded in a prioritization schema (Leider et al., 2017, p. 6e). Some scholars argue that prioritizing the worst among those that can be treated is most appropriate, while other scholars pointed out that by following this method, fewer patients can be saved, especially if resources are severely scarce (Leider et al., 2017, p. 6e). Iacorossi et al. conducted a narrative review of the literature on triage tools during epidemiological health emergencies published from 2006 to 2020 and found no gold standard for triage for adults or children (2020, p. 7).

Moreover, the challenge of determining an appropriate triage method is affected by the stress and severity of the disaster's physical consequences. For example, during wars, explosions result in many casualties of varying degrees that are visually gruesome. According to Hick et al., the sight of severe wounds instills a tendency in responders to categorize patients with major soft tissue injuries as high priority even if their injuries do not put them at risk of immediate death (2011, p. 180). This practice of miscategorizing triage patients based on the sight of their injuries results in a misuse of limited resources, making it more difficult to distribute treatment to other high-priority patients (Hick et al., 2011, p. 180).

Poor resource stewardship can also be a detriment to healthcare workers by exposing them to ethical conflicts. For example, during the COVID-19 crisis, the shortage of personal protective equipment forced many healthcare workers to take a substantial, uncertain risk that raised questions about the extent and limits of their duty to care for patients (Morley et al., 2020, p. 36). Morley et al. suggest that in cases such as this, treatment be delayed or denied when there is a significant risk to healthcare workers in the absence of personal protective equipment (2011, p. 180) because healthcare workers must protect themselves. Even so, delaying or denying patients care could place healthcare workers in moral and psychological distress as they abandon the duty to care. Here, Morley et al. call organizations and colleagues to support healthcare workers psychologically, professionally, and morally and reassure them that protecting themselves presents greater benefit by saving more people (2020, p. 36). As another layer of organizational support, Iacorossi et al. suggest establishing clinical ethics committees in hospitals to address these dilemmas as they arise and, as a preventative measure, incorporate training and case discussions into academic curricula for healthcare workers to prevent stress to staff and patients (2020, p. 7).

### 5.1.11 Transparency

The WHO defines transparency as “an ethical principle that requires policy-makers to ensure that their decision-making process is open and accessible to the public, through clear and frequent communication of information,” placing responsibility



for transparency at the organizational level (2007). The Transparency International Coalition also addresses transparency in this way, asserting that humanitarian organizations should leave an opportunity for the public to consult, assess, and input on the relevant operations during the planning and the decision-making process (Lawday et al., 2014). Transparency thus requires the active engagement and reflection of the public through dialogue, feedback, criticism, and commitment to the ongoing revision of disaster plans and healthcare choices rather than institutions merely stating their decisions. This engagement positively contributes to increasing the confidence and trust of the public as more transparency from leadership channels greater trust in times of emergencies and disasters (Pan American Health Organization, 2009, p. 23). Moreover, it is crucial to engage the public and the relevant stakeholders when making important decisions about issues that affect their health and well-being, which also can help draft an ethical framework reflective of the public's interests, values, and norms.

Transparency is also useful in identifying performance deficiencies and areas for improvement in healthcare (Vian, 2020, p. 2). When transparency is not an embedded feature of the workflow process, healthcare workers and institutions fail to observe and correct any unnecessary rationing decisions or misallocation of resources, thus overburdening hospitals and possibly leading to unintended loss of life (Cutter et al., 2021, p. 4).

Moreover, transparency is crucial for detecting and deterring corruption such as bribery, embezzlement, fraud, political influence or nepotism, and informal payments (Vian, 2020, p. 1). These patterns of corruption can undermine good governance, weaken health systems, and violate human rights, and with a lack of transparency, limit equitable access to health services (Vian, 2020, p. 1-5). Bribes and nepotism, for example, unfairly manipulate the priority of treatment standards to favor those willing and able to pay a bribe or who rely on personal relationships to receive treatment first. Corruption is notably higher during disasters due to the sudden chaos, mismanagement, and the lack of transparency, which unfortunately diminishes the work of humanitarian organizations, health institutions, and healthcare workers during disasters and could render their activities ineffective. According to Maxwell et al., “[c]orruption... is a threat to humanitarian action because it can prevent assistance from getting to the people who most need it, and because it can potentially undermine public support for such assistance” (2012, p. 140).

Implementing transparency through public engagement, such as maintaining public trust, ensuring the accountability of decision-makers, and increasing public awareness and preparedness for disaster, present clear benefits (WHO, 2007). Nonetheless, the practical reality of implementing transparency through engagement with the public during disasters is challenging. According to Lawday et al. (2014), the circumstances of the disaster could prevent transparency from being effective, for example, publishing financial information or distributing lists that result in endangering staff or beneficiaries or cause significant delays in care.

Healthcare workers can also view transparency with the public as risky exposure (Lawday et al., 2014).

War conditions also constitute a practical obstacle to implementing transparency and access to information. It can, for example, limit the attention paid to epidemics and thus cause an incomplete or distorted perspective of the situation (Collins et al., 2020, p. 1). This occurred in Syria during the COVID-19 epidemic, when low numbers of injuries were reported to intentionally obscure transparency and accurate information (Gharibah & Mehchy, 2020, p. 5). Healthcare workers in Syrian regime-controlled areas indicated that they received verbal orders from Syrian intelligence telling them to hide information about the epidemic and the deaths it caused and not to make any statements in this regard to the media (Gharibah & Mehchy, 2020, p. 7). The Syrian government may have wanted to show that it was in full control of the situation and that focus, mobilization, and basic resources would therefore remain solely dedicated to the war, or, another reason for this was that the government did not want to give Syrians another reason to revolt against it in addition to the total collapse of the economy and growing public anger. Whatever the reason, the orders to remain silent about the pandemic nevertheless put healthcare workers in moral distress. This demonstrates the reality disasters, especially war, impose on healthcare workers who are torn between the importance of telling the truth and communicating information to protect public health and the risks involved in communicating this information.

O'Malley et al. (2009) highlight other reasons for justifiably limiting transparency and withholding certain information during disasters. For instance, sharing information that unnecessarily violates individuals' privacy and confidentiality or leads to undue stigmatization of individuals or groups creates additional harm and would therefore not be an appropriate application of transparency. Transparency can also be restricted when the broader public interest demands it, but identifying who determines the public interest and how it is applied in times of war and major disasters, especially in cases where the authorities themselves are involved in corruption, a party to the conflict, or a cause of chaos, presents unresolved challenges.

### 5.1.12 Accountability

Risakotta and Akbar define accountability as "a form of obligation to account for the success, or failure, of the implementation of the organization's mission in achieving the goals and objectives that have been set previously, through periodical accountability reporting" (2018, p. 260). Ballesteros et al. claim that accountability requires standards and systems that make certain power is exercised responsibly (2010, p. 267). But accountability also implies that individuals are accountable to themselves and responsible for their actions towards others (Rubio-Navarro et al., 2020, p. 568). In their definition, Filiatrault et al. fuse the terms "accountability" and "responsibility," where professional (i.e., individual) and institutional responsibility are linked to the goal of protecting the public, especially vulnerable groups, from

any unwanted or negative consequences of the various decisions and the relevant actions (2017).

Accountability is an essential tool for public institutions because it contributes to improving the performance of these institutions (Risakotta & Akbar, 2018, p. 258). During times of crisis, accountability functions to improve health systems and policies that address complex ethical issues, such as scarcity of resources and concerns about the behavior of healthcare workers (Nxumalo, 2018). Accountability, in fact, represents a formal obligation that institutions and professionals must follow according to three facets: from a legal perspective, dependent on the laws within that community or society; from a professional perspective, where accountability is held against the standards of professional codes of conduct; and from an ethical perspective, based on moral principles and values (Rubio-Navarro et al., 2020, p. 568).

Furthermore, as noted by Risakotta and Akbar, accountability can be classified as either internal or external (2018, p. 260). Internal accountability reflects the internal mechanisms and processes used to implement accountability within an organization. It utilizes direct reporting by subordinates to their superiors who hold power. External accountability, however, occurs when parties unaffiliated with the organization make reports about the organization (Risakotta & Akbar, 2018). External accountability requires the ability and willingness of the organization to be accountable to other relevant parties in terms of how they use resources, their overall performance and achievement of objectives.

Humanitarian accountability involves taking account of the victims of disasters and being accountable to those affected and surviving the disaster (Lawday et al., 2014). This also involves decision makers and healthcare workers being held responsible for both their actions or inaction during disasters and public health crises (Hodge et al., 2012). However, decision-making in crisis conditions, characterized by a lack of resources and work pressure, dramatically differs from decision-making in normal conditions; therefore, healthcare workers bear a greater responsibility during disasters since they must make fair, procedural, and objective decisions under strenuous conditions (Jerry, 2020, p. 1).

In its letter report, the Institute of Medicine (2009) highlights the responsibilities of healthcare workers, health institutions, and government entities that are essential for effective disaster planning. Accordingly, the healthcare workers' responsibilities include the duty to care and the steward of scarce resources, but their duties also include pursuing education in disaster-related concepts, becoming familiar with local planning efforts, applying triage guidelines, supporting their decisions with good-faith endeavors, and adhering to disaster policies (Institute of Medicine, 2009). While health and government facilities are accountable for planning, developing, and regulating disaster policies, they are also accountable for providing adequate legal protection for the health professionals accompanying the shift from ordinary health care to crisis standards of care (Institute of Medicine, 2009).

Fouad et al. (2017) recommend a framework of global accountability devoted to protecting healthcare workers in armed conflict as a way to stop the systematic attacks on health institutions and healthcare workers during the war in Syria and also in comparable situations. This type of framework establishes the appropriate international accountability mechanisms that can supplant insufficient national accountability mechanisms (Taylor et al., 2018, p. 1477). These global mechanisms must consider international humanitarian laws and protect healthcare workers from arbitrary arrest and trial.

Definitions of accountability closely relate to transparency and they are often described as twins (Fox, 2007; Hood, 2010). Moreover, transparency serves the goal of accountability (Phillips & Knebel, 2007, p. 13). When decisions are being made transparently, the activity and actions of the decision-making process are more coordinated, consistent, and in line with the elements of accountability. Accountability, like transparency, is also a key factor and an important strategy to prevent corruption (Vian, 2008). Without accountability, the public may lose faith in medical and humanitarian services (Jerry, 2020, p. 24). Yet, the application of accountability can also face challenges and difficulties due to the complex emergency circumstances and the various levels of responsibilities. According to Filiatrault et al., “the intersection between certain actors’ professional responsibility and others’ political responsibility can make this value complicated to implement, and can bring it into tension with other values” (2017, p. 12). An example of this is the intersection of military medical personnel’s responsibilities, who have a loyalty to the military institution for which they work, with their medical obligation to care for those wounded by war, regardless of political or military affiliation.

Furthermore, Nxumalo et al. (2018) identify a second challenge to implementing accountability, which is the dominance of bureaucratic accountability mechanisms that overlook the importance of good intentions. Good intentions must be accompanied by internal processes, discussions, and mutual understanding among professionals and the public. Therefore, accountability policies require continuous review and feedback. Furthermore, Rubio-Navarro et al. note the importance of understanding accountability from a practical perspective by providing value-based training, promoting positive values, and fostering awareness of ethical, legal, and professional responsibilities (Rubio-Navarro et al., 2020, pp. 568-569).

Finally, it is important to maintain the balance between rapidly delivering relief during emergencies and the establishment of fully transparent and accountable systems (Lawday et al., 2014). Managing the tension between timely responses and quality responses is another difficulty to consider for the application of accountability in disasters (Steering Committee for Humanitarian Response, 2010, p. 3). In addition, in emergencies, healthcare workers may be exposed to high levels of burn-out that may make them accountable for decisions they did not have time to consider or were forced to make under pressure (Rubio-Navarro et al., 2020, p. 568).

### 5.1.13 Trust

Trust is the foundation that builds and maintains relationships, which is vitally important in health care. Healthcare systems depend primarily on mutual trust between the clinician and the patient (Wiesemann, 2017). But it is also important that patients, communities, and societies can place basic confidence in the treatment they receive and the validity and reliability of medicine as a practice and science (Wiesemann, 2017). Thompson et al. define trust as “an essential component in the relationships between clinician and patient, between staff and the organization, between the public and health care providers, and between organizations within a health system” (2006, p. 6). Trust is the principle cementing the other ethical values within health institutions.

In times of disasters and catastrophes, trust becomes even more crucial between the health sector and the public. It is essential for healthcare workers and aid organizations to build up and maintain trust with stakeholders, refugees, vulnerable groups, and victims of war and other public emergencies. According to the American College of Emergency Physicians (2017), trust is an important virtue that is unobjectively required for the practice of emergency medicine. The WHO also states in its guidance for managing ethical issues in infectious disease outbreaks that “[f]or both pragmatic and ethical reasons, maintaining the population’s trust in epidemic response efforts is of fundamental importance” (2016, p. 10).

Nonetheless, maintaining trust, let alone building trust, during disasters is challenging. For example, policymakers and healthcare workers can struggle to keep the public trust as they navigate difficult decisions, treatments, and control measures related to mass casualties (Upshur et al., 2005). Moreover, trust is dynamic and changes according to sources of information, the demographics of the public, and the type and course of the crisis (Sopory et al., 2021, p. 19). Thus, messages addressed to the public during a crisis may fail to serve their purpose if the target group, the source of information, or the degree of risk changes. Volatile, changing environments, therefore, present a challenge in maintaining an updated and effective style of messaging that contributes to public trust.

Furthermore, providing access to various health information to maintain public trust can conflict with the right to personal privacy (Limentani et al., 1998). Breaching the confidentiality of individuals can lead to negative consequences, breaking the bond of trust between patients and healthcare workers or health institutions (Filiatrault et al., 2017). It should be noted that the principle of autonomy can overlap with trust and therefore help to outline the parameters between trust and the right to privacy. As stated in a training manual for the WHO, “trust can be considered part of the continuum of health care providers’ duty to respect the autonomy of the people they serve” (2015, p. 94).

When trust is unable to be maintained, the loss of stakeholders’ trust during a health crisis presents an even greater challenge. According to Al-Bar and Chamsi-Pasha (2015), many of the allegations and complaints against healthcare workers are

linked to distrust. Losing trust in health intuitions and healthcare workers can lead to public refusal of public health measures and effectively hinder the work of public and private organizations. In their training manual on the ethics in epidemics, the WHO writes that “people who accept to seek medical advice and to collaborate with public health authorities do so because they have a certain level of trust in health care institutions” (2015, p. 94), supporting the claim that a higher level of public trust leads to more favorable levels of social compliance (Afolabi, 2018, p. 84). This high level of trust can easily be lost, however, if it is built on an underestimation of the risks arising from crises or places excessive trust in the control mechanisms adopted by the authorities (Sopory et al., 2021, p. 19).

Trust in healthcare workers, health institutions, and policymakers can not only be lost but can also turn into mistrust due to failures in ethical decision-making during the disaster’s planning and response periods and unfair access to the best possible care (Institute of Medicine, 2012). Failing to establish open and honest communication regarding resource limitations and the impact of the disaster on the healthcare system can also lead to mistrust (Institute of Medicine, 2009), and the lack of clear ethical guidelines in health crises can cause moral distress and burnout of healthcare workers (Biddison et al., 2014). Mistrust can result from a lack of disclosure of intent, abuse of trust, shortsightedness, and destructive policies of health institutions, local leaders, and policymakers (Afolabi, 2018, p. 179). Such failures are devastating in the long term. As an example of the negative effects stemming from public mistrust, many people in Liberia and Guinea denied the danger of Ebola and, above all, believed it was so fake that the government and healthcare workers were killing patients to simulate an epidemic to receive financial support from Western governments and organizations (Afolabi, 2018, p. 178). In another example, campaigns against public health measures imposed by the authorities during the COVID-19 crisis, such as wearing masks, testing and tracing programs, quarantines, and lockdown, escalated and negatively impacted economic, commercial, and social life (Chan, 2021, p. 2).

However, trust can be maintained and promoted during public health emergencies in different ways. A study conducted by the Southern California Evidence-based Practice Center analyzing the allocation of scarce resources during mass casualty events demonstrates that a key factor in establishing public trust is transparency in planning and decisions making (Timbie et al., 2012, p. 47). As mentioned previously, transparency entails public participation; therefore, well-managed public engagement adds legitimacy to disaster planning and promotes public trust and willingness to cooperate during emergencies (Jennings & Arras, 2008). It is, nonetheless, important to account for cultural differences when engaging the public. Garnering trust from communities when crisis standards of care need to be implemented starts with recognizing and acknowledging the importance of an individual’s culture (Institute of Medicine, 2009).

Furthermore, Karadag and Hakan (2012) argue that the regular delivery of appropriate and updated information to healthcare workers is critical to minimizing

public mistrust in times of disasters. Public trust can also be maintained through successful open communication, treating victims with dignity, and supporting their rights and needs. Udow-Phillips and Lantz (2020, p. 432) make a similar observation with their strategies to strengthen trust in public health during pandemics. Their strategies suggest that authorities communicate the rationale and need for public health interventions effectively and based on communication science, good understanding, and practical knowledge.

In addition to transparency, the principle of nonmaleficence is considered central for maintaining the healthcare worker's integrity and the patient's trust (American College of Emergency Physicians, 2017). The Institute of Medicine (2009) claims that transparency, accountability, consistency, proportionality, fairness and equity are vital ingredients in building and maintaining trust at each phase of the disaster. Moreover, Chan (2021, p. 2) suggests competence, accessibility, honesty, and reliability can achieve mutual trust between the authorities and the population. For example, if there is a shortage of resources during disasters and epidemics, the authorities must be open and accepting of the shortfall while acknowledging the difficulty of providing resources; at the same time, steps must be taken to address the shortage as soon as possible (Chan, 2021, p. 9). This allows the population to appreciate the reality of the situation, enhance confidence that resource shortages can be restored, and accept rationing until resources are available again (Chan, 2021, p. 9). Establishing an agreed-upon ethical framework that contains a wide range of moral values is important to avoid losing trust before a crisis hits (Upshur et al., 2005).

#### 5.1.14 Consistency

Consistency is often viewed as the hallmark of ethical principles (Hämäläinen, 2020, p. 447). For example, in their paper on Ethical Guidelines in Pandemic Influenza, Kinlaw and Barrett (2009, p. 188) describe consistency as a way to apply standards across people and time, implying that like cases should be treated alike. Similarly, the American Health Care Association asserts that consistency considers the population's religious, cultural, social, economic, geographic and ethnic backgrounds without discrimination toward any group or diagnosis and assumes that "all groups are to be treated alike" (2013a, p. 6). Consistency is essential for ethical decision-making and requires there be no contradiction between moral values and principles (Dempster et al., 2004, p. 452).

Therefore, the term consistency is understood in two ways: first, in the sense of coherence, logicity, and non-contradiction, and second, in the sense of the absence of aberration (Crossley, 2020, p. 476). Hodge et al. (2013) state that achieving consistency in difficult decisions facing medical and emergency first responders during public health emergencies is valuable because it helps others in the same position to navigate similar circumstances. Moreover, consistency is critical to a successful and collaborative pandemic response that requires global action (DH Pandemic

Influenza Preparedness Team, 2011, p. 45). Essentially, consistency must include clear, consistent communication with the public at all levels. In addition, applying consistency in crisis is an important factor in gaining public understanding and maintaining confidence (DH Pandemic Influenza Preparedness Team, 2011, p. 45).

The Arizona Code of Public Health Emergency Ethics categorizes consistency under the principle of fairness (Hodge et al., 2012). More specifically, Phillips and Knebel (2007) claim that consistency in mass medical care could be assured by comparing the triage levels among the various emergency agencies. Such comparison would help to apply consistent, evidence-based triage tools, supporting fairness in access to resources and providing professionals with a clear rationale for triage decisions (Institute of Medicine, 2012).

As with the other principles, and despite being more practical in nature, applying consistency among health organizations during disasters raises challenges. The Institute of Medicine (2012) argues that efforts to maintain policy consistently across institutions or geographic regions might limit local flexibility in implementing ethical guidance. Moreover, flexibility enhances the local capacity for communities to reflect their values in allocating scarce resources, which may stand in tension to promote consistency (Institute of Medicine, 2012). In addition, Troutman Sanders (2009, p. 8) also supports this notion, arguing that it is hard to implement consistency in standards of care during disasters since each disaster situation is unique, as is every health care community.

Yet the lack of consistency can lead to adverse outcomes on professional care and weaken the trust and integrity of health institutions and healthcare workers. Consistency is essential to maintaining integrity (Monga, 2016; Huberts, 2018), and “without consistency across communities, regions, and states on crisis standards of care, there is much greater potential for chaos and unfairness” (Institute of Medicine, 2010, p. 39). This happens, for example, if healthcare workers provide care to specific populations during disasters and wars and fail to do the same for others who have similar care needs. However, unfairness may in turn lead to legal accountability, and healthcare workers could experience increased legal liability from disaster victims who believe they could have obtained better care at a different health facility in the same region (Institute of Medicine, 2010, p. 40). Failure of implementing consistency leads to a loss in coordinating the response and operations of the emergency medical services (Phillips & Knebel, 2007).

### 5.1.15 Proportionality

According to Guidolin et al., proportionality can be viewed as “measures taken to protect the public (or individuals) from harm ... proportionate to the level of risk consistent with current best practice, or best available evidence regarding a particular risk” (2021, p. 4). In this understanding, proportionality is a balancing principle between protections and their correlated risks. Furthermore, Thompson et al. (2006) describe proportionality as the ability to apply a reasonable level of



restrictions to individual liberty required to protect the public and individuals from harm during disasters. Such restrictions can include social distancing, curfews, evacuation of civilian areas for military purposes, school closures, mandatory vaccination, isolation, or quarantine. These restrictions must not be arbitrary and need to be applied in a manner that does not go beyond what is necessary to meet the public's actual level of risk or critical needs. Curtice et al. (2011, p. 111) likened the excessive use of restrictive measures to using a sledgehammer to crack a nut. This metaphor for proportionality illustrates the importance of choosing the least coercive measures on individuals' freedoms and choices in the name of public health benefits.

Yet, reaching a reasonable level of restrictions needs to balance underregulating and overregulating (Resnik, 2017, p. 2). Underregulating occurs when decisions regarding specific measures are made without providing sufficient public benefits, whereas overregulating occurs when decisions regarding measures are made improperly and in a way that excessively restricts freedom, autonomy, or other individual rights, both in accordance to the risks arising from these measures (Resnik, 2017, p. 2). Furthermore, Singer (2003) stresses that healthcare policymakers should apply proportionality during a pandemic in a relevant, legitimate, necessary, and non-discriminable manner. Moreover, Hodge et al. (2012) claim that the main components of proportionality include balancing the obligations, maintaining privacy, well targeting the restrictive measures, and limiting their application and duration.

The principle of proportionality also applies to ways restrictive measures are lifted. For example, during the COVID-19 crisis, antibody testing was suggested as a tool to test employees and allocate vaccines to help lift or ease the need for restrictive measures and thus initiate a gradual return to everyday economic and social life with minimal harm and maximum utilitarian benefit (Gunnarsdóttir et al., 2020, p. 3). An antibody test is a blood test that confirms an immune response related to a virus, and in this case, specifically to the SARS-CoV-2 virus and variants. Testing positive for antibodies triggers a quarantine period, and after quarantine, employees are able to return to work more safely and may no longer need vaccinations. Gunnarsdóttir et al. (2020, p. 3) suggest applying antibody testing in line with the principle of proportionality by considering test availability, accessibility, affordability, legality, and general acceptance at both regional and global levels. In this regard, Gunnarsdóttir et al. (2020, p. 4) describe two steps to achieve the principle of proportionality, which are procedural and substantive legal balancing. Procedural balancing requires policymakers to make transparent, objective, and impartial decisions. Substantive legal balancing involves assessing the health interests of the population by looking at the affected rights of individuals or entities; in this case, the decisions or actions must pursue a legitimate objective, be suitable, necessary, reasonable, and proportionate to the end.

Balancing the potential benefits of restrictions that protect against harm with the degree of personal invasion can be challenging and raise questions such as, "What are the expected public health benefits that justify restricting liberty to a

given degree?”, “Should restrictive measures be voluntary or non-voluntary?” or “How do organizations define a reasonable level of restriction?” According to the WHO, in its ethical considerations for developing a public health response to pandemic influenza, “if the intervention is gratuitously onerous or unfair it will overstep ethical boundaries” (2007). Hence, failure to apply proportionality at a suitable level can lead to moral disappointment and dissatisfaction.

While navigating the parameters of proportionality is complex, its importance as a principle in disaster ethics is paramount. The WHO emphasizes that, because proportionality is essential for any ethical framework, all countries should review their existing public health laws to ensure the moral principle of proportionality is incorporated (WHO, 2007). This also is true for developing ethical disaster standards (Institute of Medicine, 2010) since implementing proportionality during a disaster is crucial for any allocation system to be just and fair (Institute of Medicine, 2012).

### 5.1.16 Humanity

Humanity is an important moral value in many cultures and societies, and most notably for the present study, it guides humanitarian responses to natural and man-made disasters. Pictet argues that the goal of humanity is “to prevent and alleviate human suffering wherever it may be found ... to protect life and health and to ensure respect for the human being” (Slim, 2015, p. 45). Furthermore, Pictet argues that humanity is the driving principle behind humanitarian work from which all the other humanitarian principles are derived (International Review of the Red Cross, 2015, p. 112). Humanity is deeply enmeshed in various cultures and religions. In Islam, for example, giving Zakat (a charity) and aid to others is considered a religious duty (Wynn-Pope et al., 2015, p. 238). In many cultures, the primary focus of the principle of humanity is to help other human beings in need and do good for fellow people (O’Mathúna et al., 2018). Within this understanding, humanity overlaps with the principles of beneficence and solidarity.

Humanity is categorized as either value or a virtue (Slim, 2015, p. 46). As a value, according to Slim, it recognizes human life as possessing essential value, acknowledges the human being’s ability to create life, and considers human life to be a fundamental good requiring protection and respect. Humanity as a virtue, moreover, focuses on preserving life and requires that a person possess the virtue of human kindness, realized in attitudes, actions, and rules, and represented in compassion, caring spirit, curiosity, response, love, and concern for the suffering of others (Slim, 2015, pp. 49-51).

The principle of humanity promotes the right to receive and provide humanitarian assistance (IFRC & ICRC, 1994, p. 3). The impulse of humanitarian aid can be influenced by various factors, including people’s closeness and awareness of suffering, the suddenness and severity of the disaster, the number of victims, and people’s ability to sympathize with the victims (Sondorp & Bornemisza, 2005).

Professional factors can also influence the impulse for humanitarian assistance. According to Sondorp and Bornemisza (2005), healthcare workers and public health professionals are driven by humanity; still, their reactions may be mediated by population-based morbidity and mortality statistics, resulting in a proportional response (Sondorp & Bornemisza, 2005).

In another description of humanity, Prieur claims that humanity means that “all persons are treated humanely, in all circumstances, that is to say with respect, tolerance, and compassion, regardless of the nature, origin, duration, and place of the disaster” (2012, p. 17). In 2001, the American Medical Association adopted a Declaration of Professional Responsibility as a Medicine’s Social Contract with Humanity that stresses the duty of physicians to combat natural and man-made assaults on the health and well-being of humankind (Psychiatric News, 2002). This duty is broken into the following activities:

1. Assure the respect of human life and its dignity.
2. Refrain from supporting or committing crimes against humanity and condemn any such acts.
3. Treat the victims with compassion and without prejudice.
4. Apply the best knowledge and skills under all circumstances.
5. Protect the privacy and confidentiality of victims.
6. Advance medicine and public health that alleviates the suffering of people.
7. Educate the public about the present and future threats to the health of humanity.
8. Advocate for changes that contribute to human well-being.
9. Teach the future caring professionals [the principle of humanity] (Psychiatric News, 2002).

The principle of humanity was also adopted in the Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs) in disaster relief settings (IFRC & ICRC, 1994). Accordingly, humanity is one of the fundamental principles with a nonpolitical notion of assisting victims on the battlefield and preventing or alleviating human suffering wherever it is found and without discrimination (IFRC & ICRC, 1994). To be nondiscriminatory aid, it must be given without considering race, nationality, creed, age, gender, socio-economic situation, or other qualifiers as only the degree of suffering and the need of individuals and communities should decide the amount and extent of aid (ICRC, 2015, p. 33). The International Committee of the Red Cross (ICRC) Code of Conduct also argues that humanitarian assistance should not further religious or political positions. Yet, the role of religion in society, the culture, and the customs of communities need to be respected and recognized to guarantee a better delivery of aid (ICRC, 2015).

However, applying the principle of humanity during man-made disasters faces the ethical dilemma of continuing to provide humanitarian assistance and care while at the same time achieving accountability and justice. Tension may arise between

helping people in need and holding people accountable as “it is difficult to remain silent in the face of acts of injustice ... while the condemnation of these acts could have a negative impact on the trust of authorities and consequently lead to humanitarian access being blocked” (Wortel, 2009, p. 780). Another challenge that this principle faces is if humanitarian aid becomes a universal imperative without a clear explanation of its limits and without careful consideration of the conditions and consequences of providing relief aid. The aid can lead to more conflict on the battlefield, for example, or be quite risky for the aid and healthcare worker; furthermore, according to Wortel, “obeying a universal obligation or rule without being able to recognize the moral dimension of a specific situation and identify the values at stake is very risky, and could lead to moral blindness” (2009, p. 792).

Slim (2015, p. 184) notes that humanitarian services are also accused of similar criticisms because they are capable of causing indirect harm and negative consequences. Among these consequences is that humanitarian aid can prolong the war, cause dependency, legitimize corrupt, inhumane regimes, and lead to violence by increasing incentives for armed raids that steal aid from vulnerable communities. Slim (2015) addresses these criticisms in detail, stating that no comprehensive and reliable evidence is presented to prove that humanitarian aid prolongs wars. He argues that other reasons prolong wars, such as the violence of the conflicting parties. He also stresses that humanitarian workers are not responsible for corrupt or tragic conditions caused by others (Slim, 2015). Any responsibility is secondary to the destruction that surrounds them as they are not the ones who decide to kill, forcibly displace, rape, and starve people. Further, according to humanitarian laws, the mere fact that an armed group facilitates humanitarian work does not make it more legitimate from a political point of view. He recommends that humanitarian organizations should increase the moral or political legitimacy of the warring parties if the latter did everything in their power to respect international humanitarian law and organize effective humanitarian relief for the civilian population (Slim, 2015, pp. 185-190).

Terry (2015, p. 470) found that many humanitarian organizations do not think about the ethical aspect in an informed or structured way. Instead, the humanitarian principles necessary for humanitarian action are listed as a mantra and treated as a moral absolute. In an example, Terry (2015, p. 470) describes an incident in Somalia where an aid worker was seriously injured. The African Union Forces (AMISOM) offered to transport the injured worker to AMISOM hospital, but his co-workers rejected the offer because their agency was “independent.” That delayed the rescue of the injured worker, and as a result, his condition deteriorated, and when he was transferred to a local hospital, he died under surgery. This incident shows that moral principles can create ethical conflicts and challenges because they may clash in certain situations. Therefore, the literal and absolute application of moral principles in complex contexts could result in adverse effects that distance decision makers from the moral meaning of the principle and lead them to follow the “letter” rather than the “spirit” of the principle (Slim, 2015, p. 44). Slim (2015) emphasizes the need to

weigh the relative importance of competing principles and follow moral reasoning in determining priority between them to find the right balance at a given moment.

In addition, medical and humanitarian organizations also experience criticisms of being corrupt or not professional enough to deal with disasters. Indeed, Sondorp and Bornemisza (2005, p. 163) note a resurgence of discussions suggesting that only well-qualified disaster response agencies should be accredited. Moreover, Fast (2015, pp. 126-127) suggests adopting horizontal and vertical accountability. The horizontal type calls for accountability within humanitarian organizations, and the vertical type indicates the need for accountability to be applied upward to donors and downward to those affected by violent conflict, disaster, or other crises.

Other critics pointed out the humanity principle is often applied selective, especially in armed conflict, where some are intentionally or unintentionally excluded from humanitarian classification (Fast, 2015, p. 113). Moreover, medical and humanitarian organizations might fail to deliver relief and humanitarian medical services to those most in need due to military and political complications that often exist to one degree or another in times of war. Being unable to provide aid places the credibility of these organizations and humanitarian work, and thus the principle of humanity, at stake. In addition, civilians and healthcare workers trapped in areas of armed conflict, waiting for resources and support, may doubt these organizations and question the reality of the principle of humanity. For example, O'Brien appealed at a United Nations conference to all parties and those with influence, specifically for the sake of humanity, to protect civilians and enable the delivery of medical and humanitarian aid to the besieged part of eastern Aleppo before it became a giant graveyard (United Nations, 2016). However, the successive appeals in the name of humanity and human rights failed, and the eastern part of Aleppo was subjected to heavy bombardment and a brutal fight that ended with massacres and the destruction of infrastructure and hospitals.

Fast (2015) also presents an example to illustrate the limits and exclusivity of the humanity principle. Malone, an online editor at Al Jazeera (media network), claimed that many people retweeted a distressing report that accused the world of not caring enough about the suffering of Syrians during the war, yet those same individuals failed to click on the link to read the actual story (although the report's title was "You probably won't read this story about Syria") (Malone, 2015). Sondorp and Bornemisza (2005, p. 163) hypothesize that the likely reason war represents an exception to the humanity principle is that natural disasters provoke a more humanitarian impulse than civil wars, where victims of natural disasters are seen as not guilty. However, these adverse reactions ignore that the victims are victims in both cases and are not at fault for the war. What is the fault of civilians, for example, if their homes were bombed during the war? What is the fault of hospitals and healthcare workers who become a target for destruction? Moreover, the Syrian situation, a mixture of civil, sectarian, liberation, regional and global conflict with extreme brutality and numerous massacres, is very complex and goes beyond the nature and form of common wars. The war in Syria serves as a symbol for the value

and importance of humanity as an ethical value and a reminder about the dangers of its exclusivity.

## **5.2 The experiences of healthcare workers about the difficulties of work and the challenges of applying ethical frameworks**

Syrian healthcare workers, while performing their duties under the conditions of war, face insurmountable challenges in providing patient care due to the loss of infrastructure, scarce resources, and the danger and instability from the conflict. While ethical frameworks are helpful for navigating difficult decisions related to patient care and professional obligations, they may not be as easy to implement under such strenuous conditions. In this section, I explore the obstacles Syrian healthcare workers encounter when applying ethical principles and frameworks during the war and relate their experiences back to the current literature and research in the field. Four sub-categories are described in this section: 1) risks from providing care, 2) stewardship of resources and work challenges, 3) corruption and organizational pressure, and 4) psychological, emotional, and social stress.

### **5.2.1 Risks from providing care**

Wars and disasters to varying degrees inflict devastating consequences for societies, families, and individuals. Because of the physical damage to infrastructure, hospitals, and emergency centers, healthcare workers are forced to either leave their places of work or take the risks of staying and continuing their work in dangerous conditions. While healthcare workers who leave secure their own safety, the loss of healthcare workers can cause harm to their communities by creating a staffing deficit, limiting access to vital health care and thus increasing morbidity and mortality in the population. More importantly, medical services in wartime serve an essential role in caring for injured civilians or military personnel, especially when the conflict takes place in heavily-populated communities, residential places or cities and therefore causes more destruction and larger numbers of civilian casualties, as in Syria.

As wars carry on, the risks to healthcare workers in war zones continue to increase. According to a WHO report in 2019, between January and September of that year alone, 825 attacks occurred on healthcare workers and health facilities in ten countries and areas of conflict, leading to 171 deaths; this represents an increase in injuries and fatalities from the previous year (United Nations Office for the Coordination of Humanitarian Affairs, 2019, p. 14). According to the same report, the largest proportion of injuries and deaths were civilian male healthcare workers.

The sixth annual report of the Safeguarding Health in Conflict Coalition also notes that in 2018, there were at least 973 attacks on healthcare workers, health facilities, and health transport vehicles in conflict and war zones (Safeguarding

Health in Conflict Coalition, 2019). These attacks caused at least 176 deaths and 710 injuries among healthcare workers, an increase for the second year in a row where similar frequency of attacks occurred in previous years. In addition, one report indicates that the number of deaths of healthcare workers in Syria in 2019 is one of the largest compared to other current conflict areas (Safeguarding Health in Conflict Coalition, 2019). Aleppo and Idlib in the north and the countryside of Damascus, parts of which are out of the regime's control, represent the provinces with the highest recorded death rates of healthcare workers in Syria (Physicians for Human Rights, 2021).

In 2016, Syria was considered the most dangerous place globally for healthcare workers, according to Alwan, the director of the WHO for the Eastern Mediterranean Region (WHO Regional Office for the Eastern Mediterranean, 2016). Muzzall et al. (2021) reported 2,689 attacks on civilian infrastructure during the war in Syria between 2012 and 2018. The U.S. coalition, the Russian military, and the Syrian government accounted for 91% of these attacks, with the bulk of these attacks on the health sector (81%) led by the Syrian and Russian governments (Muzzall et al., 2021). Furthermore, the Physicians for Human Rights (PHR) documented 595 attacks on 350 separate health facilities and 923 deaths among healthcare workers in Syria from the beginning of the conflict in 2011 until March 2020 (2021). According to the PHR report, which included non-traditional medical groups, such as veterinarians, dentists, and students who treat patients in Syria due to staffing shortages, doctors and nurses are those most affected during these attacks, followed directly by paramedics. Many of the deaths of medical personnel resulted from airstrikes, artillery, or gunfire from forces on the ground, and for those arrested, experienced torture followed by execution (Physicians for Human Rights, 2021).

At one point during the Syrian war, several hospitals in rebel-held areas voluntarily shared their location with the United Nations Office for the Coordination of Humanitarian Affairs so they could be placed on a no-strike list (Lund, 2019; Hill & Hurst, 2020; Syria Justice and Accountability Centre, 2020). The UN assisted humanitarian actors to transmit and share information about their location to gain legally protected status from military actors operating in the area, and they also directly shared the locations of health centers and hospitals with the Russian military, an ally of the Assad government (Lund, 2019; Hill & Hurst, 2020; Syria Justice and Accountability Centre, 2020). Despite this, however, a handful of healthcare facilities on the no-strike list were bombed and destroyed (Lund, 2019; Hill & Hurst, 2020; Syria Justice and Accountability Centre, 2020). That has led many officials and activists to question whether the "no-strike list" is instead being used to target and destroy medical centers - quite the opposite of what the UN intended with this process (Lund, 2019; Hill & Hurst, 2020; Syria Justice and Accountability Centre, 2020). The United Nations subsequently scaled back its support for the no-strike list system after several listed clinics and hospitals in rebel areas were hit (The New Humanitarian, 2019). In a similar incident, U.S. airstrikes destroyed an MSF trauma hospital in Kunduz, Afghanistan on 3 October 2015, killing 42 people, despite the

hospital being placed on a no-strike list after MSF gave the GPS coordinates of the trauma hospital to the U.S. Department of Defense, the Afghan Ministry of Interior and Defense, and the US Army in Kabul (Médecins Sans Frontières, 2018).

Most major public hospitals and health centers in Syria have been destroyed or taken over by armed groups (Druce et al., 2019). As a result, attacks on healthcare workers and health facilities in Syria dramatically increased, leading to a decrease in the numbers of healthcare workers, a massive gap in human resources, and the urgent need for qualified medical and emergency personnel. In fact, as of 2021, more than half of Syria's physicians have left Syria (Physicians for Human Rights, 2021). Although no reliable data are available, PHR sources estimate the number of those who left in 2015 to be 15,000 doctors out of 29,927 counted in 2009, and in the following year, a UN source estimated the number of about 27,000 doctors out of 42,000 (Fouad et al., 2017, p. 2519). In 2020, another UN report stated that more than 70% of the entire health workforce left Syria during nine years of conflict (UN Office for the Coordination of Humanitarian Affairs, 2020).

Healthcare workers remaining in Syria are exposed to persecution, torture, direct threats, or killing, facing significant danger that may lead to its suspension. According to a PHR report from 2015, the Syrian government is responsible for 88% of recorded attacks on hospitals and 97% of medical workers' killings, with 139 deaths caused directly by torture and execution (Brown, 2015, p. 3). In addition, the government, using its security and military forces, impeded the provision of medical care to wounded individuals from areas classified as hostile to the regime (Lukey et al., 2019, p. 106). According to the Syrian government, health centers that provide medical care to anyone who is wounded without informing the authorities act in a hostile manner, and are attacked as punishment (Lukey et al., 2019, p. 106).

Furthermore, these attacks are not limited to direct violence towards healthcare workers and health facilities but also include measures that interfere with the delivery of care. Such measures include, for instance, preventing the delivery of medicines, limiting the amount of care that can be provided to the besieged population, cutting off water and electricity supplies, limiting the ability of health facilities to operate, and exposing healthcare workers and patients to additional burdens (WHO Regional Office for the Eastern Mediterranean, 2016). Consequently, targeting and disrupting health services and facilities in Syria has become a weapon of war considered to be the worst of its kind since the adoption of the Geneva Conventions and other international agreements created to protect healthcare and humanitarian workers (Lukey et al., 2019, p. 105).

Directly disrupting and attacking the work of healthcare professionals and hospitals go against international humanitarian laws and conventions, such as the Geneva Convention (specifically Articles 24 and 26, Chapter IV), which assert the protection and respect for all healthcare and humanitarian workers during wars (International Committee of the Red Cross, 2016). These workers also include those whose work is related to the rescue, transportation, and treatment of the injured and sick (International Committee of the Red Cross, 2016). Abiding by these laws



is necessary so healthcare workers can continue to provide the health services which are the right of the sick and injured, a right based on the principles of non-discrimination and equality that qualify access to proper, acceptable, and quality medical care (Habrelian, 2020, p. 139). Because the war in Syria is considered an international armed conflict, due to the participation of several countries directly or through proxies in the war, any deliberate attack on healthcare workers, therefore, violates the Geneva Conventions (Liivoja, 2017; Goniewicz & Goniewicz, 2013). Even in a non-international armed conflict, a deliberate attack on healthcare workers is a war crime punishable under international criminal law and international humanitarian law that emphasizes the importance of protecting hospitals, medical equipment, and transportation (Liivoja, 2017; Goniewicz & Goniewicz, 2013).

The Geneva Conventions further state that the activities of healthcare workers should not be prohibited or violated but rather should be facilitated (Goniewicz & Goniewicz, 2013). Thus, the legal status of healthcare workers is subject to the medical and humanitarian tasks they perform (Habrelian, 2020, p. 139). In addition, the Geneva Conventions prohibit the persecution and condemnation of healthcare workers who are labeled complicit in hostilities simply by caring for the wounded and sick (Habrelian, 2020, p. 139; Goniewicz & Goniewicz, 2013, p. 108) and the coercion of healthcare workers to perform actions that are contrary to medical ethics (Goniewicz & Goniewicz, 2013, p. 108). For example, healthcare workers, unless there is an exception according to the law, should not be compelled to give out any information concerning injured patients if, in their opinion, such information would be harmful to the patients concerned or to their families, and out of respect for their privacy and autonomy (Goniewicz & Goniewicz, 2013, p. 108).

As this example suggests, following the law and following ethical medical practices is not straightforward in the Syrian context. The Syrian regime is the authority governing Syria, therefore, Syrian healthcare workers are subject to it; this authority, however, has turned into a party of the Syrian conflict and therefore can use the law to advance its conflict-driven priorities. For instance, the Syrian regime took advantage of this scenario by gaining access to patients' medical records to contact individuals, arrest them or hold their relatives accountable; however, healthcare workers had no choice but to provide this information (Tsurkov & Jukhadar, 2020). Providing any patient information to the regime presents a risk to patients and healthcare workers alike. The resulting dilemma or challenge for healthcare workers is whether to violate the local law in the interest of medical and humanitarian goals.

In 2016, Resolution 2286 was adopted by the United Nations Security Council to condemn attacks against medical facilities and individuals in conflict situations (Druce et al., 2019). However, targeted violence against healthcare workers, health services, and humanitarian workers continues in Syria despite international laws and condemnations of these explicit attacks (Druce et al., 2019). Druce et al. (2019) attribute this absence of respect for international humanitarian law to several reasons. For one, as international humanitarian law becomes more politicized, it effectively undermines its legitimacy. The strict laws adopted by some states, such as the

anti-terror law, could effectively invalidate international humanitarian law (Druce et al., 2019). Participation by humanitarian actors in peace negotiations or human rights advocacy also undermines the impartiality and neutrality of their work and the standards of humanitarian laws. Therefore, finding new ways to revive, correct, and implement humanitarian laws is essential.

Compliance with international humanitarian law can be achieved by raising awareness and vigilance in its support, engaging in active dialogue between countries, funding bodies, healthcare workers, and humanitarian workers, and creating space for humanitarian workers to report exploitation (Druce et al., 2019; Habrelian, 2020). Furthermore, it is important to raise accountability and instill robust mechanisms to investigate and punish violations of international humanitarian law (Druce et al., 2019; Habrelian, 2020). The punishment should serve as a deterrent for future actions by those involved in these crimes, including economic, diplomatic, legal, and even military sanctions. More importantly, war criminals must be prosecuted wherever they are found as this not only provides justice to those wronged but also promotes the validity of the laws.

However, efforts to punish perpetrators of war crimes and investigate widespread human rights violations in Syria are severely hampered. In 2014, for example, Russia and China vetoed a UN Security Council resolution that would have referred the conflict in Syria to the International Criminal Court (BBC News, 2014). In 2017, Russia again used its veto in the United Nations Security Council to block a one-year extension of the Joint Investigative Mechanism (JIM) to investigate chemical attacks in Syria (Amnesty International, 2017). From the beginning of the war in Syria until 2017, Russia vetoed nine times against any decisions to stop crimes against humanity and prosecute war criminals in Syria, prompting the Head of Amnesty International's New York office to state:

This routine abuse of the veto has become the equivalent of a green light for war crimes, allowing all parties involved in the conflict in Syria to act with complete impunity and disregard for international law, with civilians paying the ultimate price. (Amnesty International, 2017, para, 4)

Therefore, any possible solutions must be international if Security Council resolutions aimed at stopping violence and war crimes against civilians and infrastructure, including medical facilities and their personnel, are obstructed. For example, international members could submit these resolutions to the United Nations General Assembly instead of the Security Council, empower them to make and implement decisions. Until violations and war crimes are met with the punishments outlined in international humanitarian laws, attacks on health care will continue with impunity (Druce et al., 2019).

### 5.2.2 Stewardship of resources and work challenges

One of the main issues facing healthcare workers in times of wars and disasters is the shortage or scarcity of resources. Resources are rapidly consumed during a disaster due to the sharp increase of injured and sick patients over a short period of time and the urgent need for first aid, which can be exacerbated by a lack of preparations, untrained medical personnel, or inadequate drugs and equipment. Physical destruction of hospitals and medical centers and the blockade of cities prevent medical supplies from reaching the besieged cities. Additionally, in times of crisis, resources become more valuable due to their scarcity and are therefore even more vulnerable to misuse, theft, or misallocation. These and other reasons lead to significant difficulties for healthcare workers providing treatment and medicines and distributing them fairly.

Determining eligibility criteria for priority care and applying triage principles during difficult and dangerous conditions create immense pressure for healthcare workers, which is compounded by the shortage of resources impeding the ability of workers to apply standards of care used in regular times. Therefore, an urgent need arises to define what ethical principles and policies should be relied upon during emergencies. Ethical principles of fairness and rights, for example, are often used to make decisions regarding the allocation of scarce resources and therefore need to be thoroughly understood and possibly re-examined and reassigned priority (Phillips & Knebel, 2007, p. 18). Likewise, Evans and Sekkarie (2017, p. 1) claim that existing guidances on medical care in armed conflict tend to provide conflicting advice on allocation decisions and ignore the inherent facts related to the scarcity of resources within conflict zones. For example, the issue of equity is described in this literature as equality or equal treatment in its broadest sense and includes potential lotteries or “first come first serve” policies that would cause many ethical and logistical issues in conflict areas (Evans and Sekkarie, 2017, p. 1).

Many ethical frameworks, guidelines, and codes define the general principles that guide the process of allocating scarce resources; however, few evaluate community attitudes, healthcare worker preferences, and their perceptions of the nature and application of ethical principles before publishing allocation frameworks (Biddison et al., 2018, p. 188). These perspectives serve an important role in helping healthcare workers make optimal decisions when allocating scarce resources. Such insights also help to better understand society’s attitude and perception of medical services and the decision-making capacity of healthcare workers during disasters, where community standards shape the expectations of first responders and other disaster workers (Phillips & Knebel, 2007, p. 20). A research study showed that many participants were concerned about healthcare workers making biased decisions during a disaster (Biddison et al., 2018, pp. 190- 191). The participants in this study also expressed an urgent call to develop a mechanism that can modify existing triage protocols and resource allocation systems and review existing decision support tools (Biddison et al., 2018, pp. 190-191).

Triage protocols are typically based on assessing whether patients require immediate care or if their care can be delayed, and comprehensive scoring or color-coding systems are used to help quickly assess and triage patients according to the type of injury and survivability (Goodman & Black, 2015, p. 26). The greatest challenge for triage occurs when, for instance, several patients suffer from life-threatening injuries to varying degrees that can be reversed with the right treatment interventions, but it may not be possible to save everyone at once because there are not enough resources to do so (i.e., lack of ventilators). According to Goodman and Black (2015, pp. 27-28), developing triage plans within an ethical framework and appropriate training helps address this challenge by reducing the burden on healthcare workers making difficult triage and allocation decisions.

Furthermore, allocation and triage in cases of war and armed conflict must be distinguished from allocation and triage in other types of disasters. Evans and Sekarie (2017, p. 1) identify three unique features that characterize resource allocation in the event of armed conflict: the distinction between continuous and binary medical resources, the risks of armed conflict itself, and the impact of cultural differences on situations of armed conflict. Continuous versus binary resources emphasizes the fact that war is a long-term disaster and presents the likelihood of scarcity and insecurity for an unknown period. The second distinction, that war creates a completely different type of risk for patients, describes the practical issues of accessing care, such as crossing through active combat areas to reach medical centers for treatment. This concern is magnified when medical facilities and healthcare workers are subjected to direct and systematic targeting for reasons previously described. The third distinction describes the fact that many ongoing wars are ethnic, sectarian, or civil wars, which causes a deep cultural conflict. Here, culture becomes an important feature during the provision of health care if healthcare workers are from cultural and ethnic groups different from their patients, or vice versa. If a group feels, for example, that healthcare workers belong to another culture and treat them in a way they consider unfair, then this may lead to violence.

These characteristics largely apply to the Syrian conflict that, as of 2022, has entered its tenth year. Access to health care in many areas in Syria is limited and volatile. According to the WHO, earlier in the conflict, nearly 40% of Syrian ambulances were destroyed and 57% of public hospitals were damaged (Sharara & Kanj, 2014, p. 1). Moreover, almost half of the primary health centers were disrupted by the end of 2014 (Abbara et al., 2015, p. 89). To make up for this severe shortage of health facilities, destroyed hospitals have been refurbished as field hospitals that operate underground to protect them from bombardment. Still, they nevertheless lack expert workers, medical equipment, and the capabilities to deal with a large number of injured and sick (Alahdab et al., 2014).

Syria has also experienced a decline in health care quality due to the shortage of medicines and medical supplies and the deterioration in the medical equipment's performance from the lack of maintenance and available spare parts (Kherallah et al., 2012, p. 52). The severe medicine shortage resulted mainly as a result of

decreasing national production of medicines during the crisis from 90% to 10% (Sharara & Kanj, 2014, p. 1). While medicines can be obtained abroad, what gets imported typically is not exactly what is needed, such as different doses or combinations. Therefore, doctors must sometimes change the treatment plan for patients to suit what is available rather than what is suitable for the patients (Armstrong, 2016, p. 18).

In addition, when the conflict began, maternal and pediatric services were significantly disrupted and more than half of those living with chronic diseases were forced to stop their treatment; this was done so those with life-threatening injuries and conditions could be prioritized in the war-burdened healthcare system (Kherallah et al., 2012, p. 52). Prioritizing treatment in this way also led to a neglect of outbreaks of infectious diseases such as measles, hepatitis A, leishmaniasis, polio, meningitis, and scabies (Sharara & Kanj, 2014, p. 1). These diseases spread due to the shortage and interruption of vaccination programs, especially among children and vulnerable populations in Syria and Syrian refugees in camps in neighboring countries (Sharara & Kanj, 2014, p. 1). Moreover, mental health care was marginalized due to prioritization for seriously injured patients, but simultaneously, the experience of war increased mental health disorders and the need for this care. According to the UNHCR, in 2014, due to the conflict, more than 350,000 people were suffering from severe mental disorders, and over 2 million suffered from mild-to-moderate psychological problems such as depression and anxiety (Abbara et al., 2015, p. 90). This need, however, fails to be met due to the significant shortage of psychiatrists and psychological support (Abbara et al., 2015, p. 90).

This highlights another issue related to staffing shortages, where unqualified or junior practitioners increasingly filled health work positions after the exodus of trained healthcare workers (Abbara et al., 2015, p. 88). Yet no matter how dedicated to caring for patients, their lack of experience and training failed to provide the necessary care. The specialized healthcare workers who remained in Syria were forced to divide their time among several health facilities to meet the increasing need, but even still, this was not sufficient to address the state of the massive reductions in the general availability of these specialized services (Armstrong, 2016, p. 15). Furthermore, the continued targeting of medical facilities means healthcare workers get patients seen and treated as quickly as possible to reduce their risk of harm from military attacks. This reduces patients' length of care and treatment as healthcare workers must work in haste under extremely stressful conditions (Armstrong, 2016, p. 16). This also increases the possibility of medical errors and exposes healthcare workers to additional stress and burnout. Lack of fairness in dealing with members of the health team and targeted discrimination toward certain healthcare workers in many areas in Syria are other stressors that exacerbate staffing shortages (Othman et al., 2018, p. 111).

### 5.2.3 Corruption and organizational pressure

Globally, corruption rates are higher in low-income countries compared to high-income countries (Olken & Pande, 2012, p. 481). More specifically, corruption in the health sector is a major problem in many developing countries that concurrently suffer from limited public resources (Hope, 2015, 383). Within this framework, Hope (2015) defines corruption as:

Behavior on the part of office holders or employees in the public and private sectors, in which they improperly and unlawfully advance their private interests of any kind and/or those of others contrary to the interests of the office or position they occupy or otherwise enrich themselves and/or others, or induce others to do so, by misusing the position in which they are placed. (p. 385)

It could include bribery, favoritism, theft, fraud, money laundering, offering or receiving an illegal reward or service or commission, and conflicts of interest that influence peddling (Hope, 2015, p. 385). There are many causes of corruption, among them being a weak legal and legislative system, political instability, the lack of development of ethical standards, and the extreme motivation for payment resulting from poverty, low salaries, and lack of insurance (Mashal, 2011, p. 73). The persistence of corruption in developing countries is attributed to the systemic failure of governance and the limited capacity or corruption of the key institutions responsible for ensuring public accountability, upholding ethics and standards of integrity, and enforcing the rule of law (Hope, 2015, p. 384).

Furthermore, the chaos caused by disasters and wars presents another opportunity for corruption, and when it already exists at a high level, the state of the corruption worsens. In general, disasters increase the rate of corruption (Yamamura, 2014, p. 385). Transparency International defines corruption as misusing the entrusted power to reach private gains (Nisha, 2015, p. 16). This definition is helpful to understand how corruption occurs in disasters and wars, where governments and institutions misusing their authority and management extend this mismanagement to the resources reserved for medical and humanitarian aid. Consider the extensive network involved in accessing and distributing aid: after extensive decision-making processes that include participants from foreign and local organizations, institutions, and donors, the aid then depends on actors for collecting, transporting, allocating, and distributing various medical and humanitarian resources, and these resources widely vary and could include medical supplies, drugs, ambulances, vaccines, meals, water, camps, and funds – therefore, corruption has many opportunities to take advantage within this framework.

Consequently, the flow of funds to and from humanitarian and medical organizations, along with the need for urgent assistance and the difficult conditions in the areas affected by the disaster, contribute to the emergence of widespread concerns about diverting aid resources away from those in need (Asian Development Bank

et al., 2005, p. 1). Shifting aid away from affected communities means its distribution is not aligned with the principle of fairness, which could cause severe consequences that force individuals to use illegal means to secure their survival needs (Asian Development Bank et al., 2005, p. 7). Thus, corruption undermines the spirit of humanitarian and medical action, which is based on the principle of “do no harm” (Asian Development Bank et al., 2005, p. 7). Yet despite the overwhelming issue of corruption and its adverse effects on medical and humanitarian work during periods of wars and disasters, many policies fail to consider corruption in their guidelines and very little research on this topic has been conducted (Ewins et al., 2006, para. 1).

Furthermore, corruption during disasters and wars is often linked to favoritism, bribery, negligence, management failure, lack of monitoring, poor coordination, loss of trust, transparency, honesty, and accountability. However, depending on the phase of the disaster, certain types of corruption can be more common in different disaster periods. According to Mahmud and Prowse (2012, p. 941), for instance, negligence in providing humanitarian services and nepotism are more common in pre-disaster interventions, while the stripping of wages, bribery, and misuse of resources are more common in the post-disaster phase.

In particular, favoritism and nepotism are commonly identified forms of corruption during conflicts and involve using power or authority to provide undue opportunities to family or friends (Mahmud & Prowse, 2012, p. 934). Patient favoritism occurs when a patient is favored over others based on special recommendations from authorities, co-workers, friends, and acquaintances (Rooddehghan et al., 2019, p. 31). Rooddehghan et al. identify three forms of patient favoritism (2019, p. 31). In the first form, patients are prioritized not according to a medical reason but because of their connection to relatives or friends working in the health system (Rooddehghan et al., 2019, p. 31). The second form of favoritism occurs when a patient, for non-objective reasons, receives higher quality medical services, and the third form when a patient is exempted from some of the hospital’s rules and regulations (Rooddehghan et al., 2019, p. 31). Favoritism can also be found in employment opportunities, such as favoring one healthcare worker over another or hiring a healthcare worker based on kinship rather than qualification (Fu, 2015, p. 1).

Clearly, this type of corruption, while not as damaging as other forms, presents negative effects on health services, especially in light of disaster-related chaos, pressure, and the decline in monitoring. One of the most significant side effects of favoritism in health care is that it creates inequality in health care, causes a barrier to justice, and thus threatens medical ethics (Holm, 2011, p. 90; Rooddehghan et al., 2019, p. 29). To address the issue of favoritism in health care, institutions could implement accountability measures for workers and leaders. Mutual accountability between all stakeholders is an essential element that increases responsibility and ownership of humanitarian and reconstruction services during and after the war (Asian Development Bank et al., 2005, p. 13). In fact, poor accountability of local partners is often the leading cause of corruption in managing foreign aid (Calossi et

al., 2012, p. 661). However, during disasters and wars, the principle of accountability is often bypassed for other principles based on the urgency of the situation. Other efforts to address health care favoritism and corruption, therefore, have looked to training as a preventative measure. Training helps to raise awareness of the negative effects of corruption on health care, creates a sense of accountability among caregivers concerning the quality of medical services, and encourages workers to not feel they are “blindly” following standards and rules (Nisha, 2015, p. 17).

The principle of accountability is often associated with the principle of transparency, which is one of the most effective anti-corruption tools that help detect and deter unethical acts related to abuses of power (European Commission, 2017, p. 57). It is important, then, that stakeholders demonstrate transparency during disasters (e.g., tracking the flow of medical and humanitarian aid) and consider what factors could obstruct implementing transparency measures. Calossi et al. (2012, p. 662) identify the following factors that can obstruct the application of transparency and accountability during humanitarian crises: time pressure, media influence, insufficient information, the exceptional nature of the situation, and the large influx of resources, which can lead to embezzlement in low-income countries; as well as rapidly hiring local staff and administrations, the fragility of the state and institutions, the difficulty of enforcing respect for the law, and finally, the unequal power relationship between beneficiaries, agents, and donors. Calossi, et al. (2012) also note that non-governmental organizations, donors, recipients, and government agencies follow the rules and procedures of their own, complicating any coordination or auditing activity, obstructing transparency and accountability, and increasing the opportunity for corruption (Calossi, et al., 2012, p. 662).

In fact, jeopardizing coordination among stakeholders presents a significant problem because coordination is a crucial activity during a crisis. Several studies have shown that coordination, which relies on good management and monitoring, is a major challenge among individuals, groups, and organizations when responding to disasters (Bahadori et al., 2015, p. 274). Therefore, the lack of coordination and the absence of local controls increase the risk of corruption (Asian Development Bank et al., 2005, p. 51) and could lead to corruption integrating as a feature of the long-term crises due to the management’s negligence (Ewins et al., 2006, p. 20). When corruption situates itself as another feature of the disaster, it negatively impacts the activities of institutional donors which then hamper the humanitarian and medical services provided, thereby reducing the public’s trust in humanitarian efforts (Calossi, et al., 2012, p. 664).

The problem of corruption in Syria preceded the revolution and war but worsened considerably during the war and now threatens the humanitarian efforts being employed there. Transparency International (2020), an organization that annually ranks countries according to perceived levels of corruption in their public sector based on expert opinion, indicates that Syria ranked 178 out of 180 countries in 2019 for corruption. In addition, Syria was perceived in 2019 as one of the most corrupt countries in the world, with an average score of 13 out of 100 on a scale



from 100 (very clean) to 0 (very corrupt) (Transparency International, 2020). It is worth noting that Syria's ranking before the war in 2010 was 127 out of 180 and gradually increased to 178 by 2019 (Trading Economics, 2003–2020).

High levels of corruption, however, did not create motivation to undertake reforms in the country because the Syrian regime benefited from a monopoly on the profits of widespread corruption (Borshchevskaya, 2010, p. 41). Therefore, any Syrian officials who tried to confront corruption found themselves in prison or in a possibly worse situation (Borshchevskaya, 2010, p. 46). Before the war, the types of corruption that operated in Syria were due to the lack of regulatory and legal frameworks, the negative impact of the state's influence in most areas, the inefficiency of the judicial system, and its impartial status (Borshchevskaya, 2010, p. 46). Moreover, Transparency International claims that the instability of its government institutions and complete disregard for rights and political balances led to a boom in corruption in Syria during the war (Transparency International, 2019) which further created a culture of corruption in most public sectors.

Most notable is the corruption reflected in Syria's health system during the war where individuals profited from health services and job appointments based on loyalty and geographical differences in the quality of health care (Tsurkov & Jukhadar, 2020, para. 15). According to Tsurkov and Jukhadar (2020, para. 15), corruption and impunity, along with the immunity granted to state officials in regime-controlled areas, resulted in the theft of medical supplies from government hospitals by staff requiring patients to pay for medical services. And while health care services became closely related to issues of loyalty and favoritism (Tsurkov & Jukhadar, 2020, para. 16), at the same time, there were secret police who restricted healthcare staff's freedom, interfered with their decisions, and prevented the leakage of important health information, such as important information about ongoing epidemics (Tsurkov & Jukhadar, 2020, para. 1-22).

Secure Access in Volatile Environments (SAVE) conducted a study to determine "what works" when enabling access and providing reasonable humanitarian assistance to people stranded in war zones. The study's report state that corruption, bias, and favoritism are major impediments to receiving aid in Afghanistan, south-central Somalia, and Syria (Haver & Carter, 2016, p. 50). Paying for certain types of access and granting concessions to certain individuals was a common sign of corruption practices. Other notable signs of corruption include paying money at checkpoints, unofficial taxes, altering targeting criteria, and employing local militia. Moreover, corruption could also occur specifically with the deployment of humanitarian assistance when working with local actors who are known to be corrupt or biased in how they distribute aid, or who operate in a specific area instead of another so as not to provoke an influential person or community (Haver & Carter, 2016, p. 50).

Finally, per the SAVE report findings, aid workers in Syria reported favoritism in the reallocation of resources due to a lack of monitoring and effective control over aid distribution (Haver & Carter, 2016, p. 54). The report also makes clear that employees of local NGOs face ethical dilemmas due to the aforementioned

practices indicating corruption yet have not received enough support to deal with it owing to a widespread culture of silence around the issue of corruption (Haver & Carter, 2016, p. 11). The lack of effective communication and management does not help solve these problems, either, as demonstrated by the ineffective communication between NGOs' local and international management in non-government-controlled Northern Syria (Othman et al., 2018, p. 111). Of note, the search results for this study also confirm a lack of articles from peer-reviewed journals related to research on corruption in medical and humanitarian work in Syria during the years of conflict.

#### **5.2.4 Psychological, emotional, and social stress**

Natural and man-made disasters cause multi-faceted layers of trauma. As a result, the psychological and behavioral responses of those impacted by disaster range from resilience to disability depending on the social context of the event, biological and genetic makeup of the individual, past experiences or expectations, as well as the characteristics of the disaster (i.e., cause, severity, duration of exposure, availability of medical and psychological support) (Benedek et al., 2007, p. 57). Negative psychological responses can result from fear, panic, stress, unexpected or sudden shock, and a state of loss, death, and disability, all of which are closely correlated to experiences in disasters and wars. These sudden events may lead to a state of denial by disaster victims trying to escape the tragic reality, which may increase the possibility of exposure to anxiety, tension, and emotional trauma (Makwana, 2019, p. 3). In fact, the post-disaster period is characterized by a record high morbidity (60%) of mental disorders as survivors are susceptible to an increased risk of anxiety, depression, and stress-related disorders (Umeda et al., 2020, pp. 1-2).

The psychological effects resulting from man-made disasters, such as wars, cause greater proportions of post-traumatic stress disorder compared to natural disasters (Makwana, 2019, p. 4). Yet owing to the strenuous environment and lack of resources, physical injuries are often given priority and attention and the psychological effects may be ignored entirely. Prioritizing physical injuries over mental health care during war raises concerns since wars are long, and prolonged conflict leads to the persistence of physical injuries that require constant attention and priority. Hence, mental health issues caused by disasters are often marginalized and remain among the most neglected area of care (Makwana, 2019, p. 2). This continues to occur in conflict areas despite the increased attention over the last two decades to the psychological effects of disasters within disaster health management plans (Umeda et al., 2020, p. 1).

This issue raises additional concerns because the psychological effects of war extend to anyone who experiences it, especially disaster responders. First responders suffer from a wide range of mental health consequences due to the difficult nature of their work within natural or man-made disasters (Benedek et al., 2007, p. 55). Those who respond to disasters, such as paramedics and emergency workers,

are the first to deal with victims and provide them with care and support. Likewise, they are the first to rescue victims whose physical and psychological state is often tragic. This shift from standard care to crisis care can easily disrupt a healthcare worker's ability to cope with chronic catastrophic conditions, especially if the rhythm is continuous. For example, one study evaluating ambulance personnel's mental and emotional health while performing accident and emergency duties showed that 69% of participants never had enough time to recover emotionally between critical incidents (Alexander & Klein, 2001, p. 78). This causes significant stress in addition to the personal negative emotional and social consequences resulting from the high demand of work, the need to stay for extended periods in the emergency department, the separation from home and loved ones, and the work with disrupted communities, refugees, and displaced persons (Benedek et al., 2007, p. 56).

Even though conflicts and war cultivate harmful conditions for first responders, such as withdrawal, social isolation, and anxiety, that affect their well-being more than those of natural disasters, man-made disasters nevertheless present the opportunity for positive references, such as solidarity (European Commission et al., 1998, p. 8). In disaster situations, casualty rates and dangers that affect everyone increase dramatically, so the solidarity of disaster responders with each other and with disaster victims often increases naturally. Solidarity helps evoke unity among people who consider themselves vulnerable to the same threat and promotes mutual support, which plays a critical role in disasters. Thus, solidarity can lead everyone towards a unified goal, which is to face the consequences of a disaster. Solidarity and social support make it easier for disaster responders and the community to cope. In fact, lack of social support and communication are identified as strongly correlated to adverse mental health outcomes for medical responders across all types of disasters (Naushad et al., 2019, p. 640). This helps to explain, for example, lower levels of depression, psychological distress, burnout, and lack of personal achievement versus the higher levels of satisfaction by international humanitarian workers in an environment of appropriate social support (Lopes Cardozo et al., 2012, p. 1).

Given that disasters have potential cultural and spiritual implications linked to the frustration of affected communities, cultural and ideological factors can positively or negatively influence the psychological state and moral decisions of disaster survivors and responders. These factors affect the way people cope and behave and therefore contribute to their long-term recovery in the aftermath of a disaster (Substance Abuse and Mental Health Services Administration, 2018, p. 13). Cultural factors include, but are not limited to, worldviews, history, spiritual beliefs, and cultural norms (Substance Abuse and Mental Health Services Administration, 2018, p. 13). In addition to cultural and spiritual factors, emotional inconveniences also influence the moral behavior of emergency medical professionals during emergencies and disasters. These include having child victims, injured acquaintances, severe injuries, incorrect information about the status of victims, or feelings of helplessness without immediate support from colleagues (Alexander & Klein, 2001, pp. 77-78).

Consequently, paramedics and other frontline healthcare workers responding to disasters and war are more vulnerable to psychological distresses such as depression, post-traumatic stress disorder, anxiety, sleep disturbance, job dissatisfaction, burn-out, medical errors, leaving the profession, and suicide (Afshari et al., 2021, p. 1; Guilaran et al., 2018, p. 344). For instance, one study that investigated the effects of traumatic events among emergency physicians showed that a significant portion of emergency physicians exceeded sub-clinical levels of post-traumatic stress (19.8%), anxiety (44.7%), depression (42.1%), and somatic complaints (53.9%) (Somville et al., 2016, p. 8). Another study also found that acute stress disorder, post-traumatic stress disorder, and depression rates were significantly higher for disaster or rescue workers than for those unexposed to disaster. The ratios were respectively: (25.6% versus 2.4%) (16.7% versus 1.9%), and depression at seven months (16.4% versus 10.0%) (Fullerton et al., 2004, p. 1371).

In terms of burnout, one study assessing burnout levels among professionals in emergency medical services revealed high rates of emotional exhaustion and depersonalization and low levels of personal achievement (ALmutairi & El Mahalli, 2020, p. 271). Similar results were also found in a study involving humanitarian workers, demonstrating that increased exposure to extraordinary and chronic stress during the deployment of humanitarian workers contributed to an increase in the risk of burnout, depersonalization, and emotional exhaustion compared to pre-deployment (Lopes Cardozo et al., 2012, p. 1). Acute and chronic stress among emergency medical service professionals can lead to negative physical states such as elevated cortisol levels, indicators of cardiovascular disease, obesity, and sleep disturbance (Barbee et al., 2016, p. 456). Moreover, these psychological challenges faced by workers can disrupt their work in health and humanitarian care; this in turn can decrease the number of necessary human resources and weaken the ability and psychological readiness of workers to apply ethical policies and standards or make appropriate ethical decisions during disasters and wars.

Very few academic publications report on the psychological effects of the conflict in Syria, in particular, the effects on Syrian refugees in various regions and to a lesser extent on Syrians currently living through the war in areas under the regime's control. In fact, prior to 2013, published studies on the mental health of displaced Syrians and refugees were almost non-existent (Quosh et al., 2013, p. 280). This lack of research reflects the general state of research and publications reporting on the psychological effects of war on health and humanitarian workers (Othman et al., 2018, p. 121).

From the available literature, studies of stress in crisis-affected populations of the Middle East region do reveal that the current living conditions have a severe impact on mental health (Hassan et al., 2015, p. 16). A study conducted on Syrian refugees residing in the Kurdistan Region of Iraq showed that rates of PTSD (60%) and potential depression (59.4%) were very high (Mahmood et al., 2019, p. 1). Most of the participants were exposed to traumatic events and strongly correlated to these psychological problems. Likewise, another study found that PTSD is a major mental

health problem in Syrian refugee camps in Turkey, with a prevalence rate of 33.5%. The rates were exceptionally high among females (71%) who experienced two or more traumatic events and had a personal or family history of mental disorders (Alpak et al., 2015, p. 45). In a study with Syrian refugees living in Lebanon that compared the prevalence of depressive disorder before and after the war, it was found that the current prevalence of depression among participants reached 43.9% compared to 6.5% before the war (Naja et al., 2016, p. 78). Furthermore, in Syria, 75% of people with mental illness did not receive any treatment (WHO, 2020, p. 32).

The ongoing attacks targeting densely populated areas and medical facilities, which have continued for years in Syria, increase a pervasive state of psychological stress and that the vulnerable and threatened had no safe haven (Meininghaus, 2016, p. 119). Medical facilities are a target of bombings and other violence as a way to prevent the provision of services in opposition areas. This direct targeting causes fear and permanent anxiety among healthcare workers, especially since they can be criminalized and designated enemies or traitors if they provide medical services to individuals classified as enemies by the conflicting parties. For instance, in a report published by the UN, healthcare workers working in hospitals under the regime's authority fear punishment if they provide treatment to members of armed anti-government groups (United Nations Human Rights Council, 2013, p. 3). One study investigated the prevalence of depression, anxiety, and stress among medical students at Damascus University during the war and showed that 49.1% of the participants had to change their residence due to the conflict (Al Saadi et al., 2017, p. 8); 51.1% of the participants, or their family members, suffered physical or financial damage because of war; and the prevalence of depression, anxiety, and stress among students was 60.6%, 35.1%, and 52.6%, respectively (Al Saadi et al., 2017, p. 1).

Burnout syndrome was also present among healthcare workers in Syria during the war. A study conducted with resident physicians of all specialties in eight different governorates in Syria (out of 14) found that this syndrome is commonly prevalent among this population and, moreover, is considered one of the highest levels in the world (Alhaffar et al., 2019, p. 6). Accordingly, the emotional exhaustion, depersonalization, and personal achievement levels were 77.9%, 54.6%, and 13.7%, respectively (Alhaffar et al., 2019, p. 3). Furthermore, 19.3% of the participants had a high level of burnout in all three previous domains, and 93.75% had a high level in at least one of the three (Alhaffar et al., 2019, p. 3). The level of burnout among resident physicians working in military hospitals and emergency medicine was also among the highest (Alhaffar et al., 2019, pp. 4-7).

In another study evaluating organizational pressures on medical and support staff working for an international medical NGO in the northeastern region of Syria, results found that the workers had numerous individual challenges such as stress, tension, nervousness, difficulty managing emotions, and constant worrying about people who depend on them, such as family and parents (Othman et al., 2018, p. 110). Evidence from other research shows the situation for humanitarian workers

is similar. For instance, a study conducted with aid workers belonging to Jordanian NGOs, who provide services to Syrian refugees in Jordan, showed that this population was at risk of physical and mental complications and suffered from deteriorating self-differentiation, intimacy, and well-being (Rizkalla & Segal, 2019). The study further showed that 13% of these workers had PTSD symptoms due to traumatic events, and 46% suffered secondary traumatic stress (Rizkalla & Segal, 2019, pp. 1-7).

Despite these stresses and psychological problems, a lack of systematic and continuous psychological support for medical and support staff remains, especially those working in hard-to-reach areas in Syria during the war (Othman et al., 2018, p. 110). One study revealed that healthcare workers in the Syrian conflict did not receive adequate support, and their only support came from their faith (Footer et al., 2018, p. 6). Mental health care is considered a new field in Syria, even before the conflict in 2011; therefore, the country has never had more than 120 psychiatrists, a handful of clinics, three general and two private psychiatric hospitals serving all of the population of 21 million in the country (Hedar, 2017, p. 928). This disparaging lack of mental health services has been exacerbated by the extensive damage and destruction during the war. For example, the number of psychiatrists decreased rapidly from 120 in 2011 to only 70 in 2016 (Hedar, 2017, p. 931). In addition, the two private psychiatric hospitals were destroyed (Hedar, 2017, p. 931). As for government hospitals, one of them stopped working several years ago, and another hospital was severely damaged (Hedar, 2017, p. 931).

### **5.3 Ethical principles and values: comparing theory and practice**

Because ethical principles and moral values are arguably the most important facet of any ethical framework used in health policies, whether in times of peace or disaster, understanding the process by which principles are chosen to build ethical frameworks is of utmost importance. Numerous external considerations play a role in shaping this process, including but not limited to culture, social context, conflict of interests, and time constraints. Internal factors, such as the orientation and overall organizational goals of institutions creating or utilizing the frameworks, are also important features to consider as they will be reflected in the framework's implementation and application. For example, international aid organizations typically include principles defined by humanitarian, solidarity, and non-discriminatory ideals, whereas local organizations, on the other hand, reflect values that are more specific to the prevailing culture in their community. Assessing how to incorporate these external and internal considerations into ethical frameworks relies on conducting research studies, utilizing the experiences of health and humanitarian organizations, and engaging in discussions with shareholders.

However, organizations or institutions are not always transparent with this process and thus fail to properly explain their methods, reasons, and criteria for selecting specific principles and values to guide their health policies. This becomes problematic particularly during wars and disasters when moral values and ethical principles are pushed to their limits, and without understanding the importance of the principles and why they were chosen to resolve ethical dilemmas, frameworks could be difficult to apply or easily abandoned. For example, fairness and the duty to care are primary ethical principles for health policies, yet their application in disaster and war settings becomes significantly affected due to the dramatic scarcity of resources and the sudden increase in morbidity and mortality. Furthermore, healthcare workers could adopt other principles not incorporated into frameworks that are less common in peacetimes, such as the principles of sacrifice and solidarity.

This tension between principles succeeding in an ethical framework “on paper” but failing to support healthcare workers facing ethical dilemmas during war prompted me to study, first, what ethical principles are commonly described in ethical frameworks and which are employed by decision-makers, and second, to further unravel and understand the challenges of their application in the real-life setting of war. This present study, therefore, compares theory and practice and uses the resulting data to fill an apparent gap in the current literature. To this end, the ethical principles and values used or considered important by study participants were identified and compared to those included in ethical frameworks, codes, and guidelines. Table 10 provides a summary of the results:

	Ethical principles and values used or considered important by participants:	Ethical principles and values included in the ethical frameworks, guidelines, and codes:
1.	Fairness/Justice/Equality/Impartiality/Non-discrimination	Fairness/Justice
2.	Humanity	Humanity
3.	Honesty/Faithfulness/Loyalty/Dedication/Sincerity	
4.	Confidentiality/Privacy	Privacy
5.	Neutrality	Neutrality
6.	Honor/Respect	Respect
7.	Sacrifice	
8.	Beneficence/Benevolence	Beneficence
9.	Nonmaleficence (do no harm)	Nonmaleficence (do no harm)

10.	Altruism/Magnanimity/Nobility	
11.	Boldness/Bravery	Courage
12.	Independence	Independence/Self-determination
13.	Transparency	Transparency
14.	Confidence/Trust	Trustworthiness/ Trust
15.	Voluntary service	Voluntary service
16.	Compassion/Kindness/Mercy	
17.	The protection of the patient/Child protection	
18.	Proficiency (to master the work)	
19.	Accountability	Accountability
20.	Duty to care	Duty to Care
21.	Reciprocity	Reciprocity
22.		Proportionality
23.		Soundness
24.		Stewardship of Resources
25.		Individual liberty/Autonomy
26.		Solidarity
27.		Empowerment/Resilience
28.		Duty to press governments
29.		Universality
30.		Unity
31.		Vulnerability
32.		Responsiveness
33.		Inclusiveness
34.		Beneficiary-centeredness
35.		Focus on the worst off
36.		Sustainability
37.		Poverty reduction
38.		Vigilance



Overlapping values and principles adopted in ethical frameworks and by healthcare workers included, notably: humanity, respect, neutrality, privacy, beneficence, and nonmaleficence. Participants, however, identified six categorical values deemed important to their work that do not appear and were not considered in the ethical frameworks, such as faithfulness, sacrifice, and altruism. Modern discourse from societies that value individual-based conceptions of autonomy typically views such values, specifically a willingness toward self-sacrifice and altruism, as antiquated interpretations of the ethos of healthcare that are contrary to professionalism and paid work (Slettmyr et al., 2017, pp. 1-2). Yet in this study, participants revealed that many Syrian healthcare workers providing care in the conflict emphasize the importance of so-called “antiquated” values and principles.

### 5.3.1 The moral values of altruism and sacrifice

Some participants identified sacrifice and altruism as personal values motivating them to carry on their work because of the turmoil caused by war. They emphasized that enduring the dangers and exceptional, catastrophic conditions of war in Syria required them to adopt principles and values far beyond what they were accustomed to in their professional lives prior to the war. Participant M31 (DOC), for example, said:

*“In wartime ... how can you continue to work if you are not honest and faithful, if there is no honor ... and a noble goal to which you aspire, regardless of all material goals! ... I see altruism as one of the most important moral values ... to work in a medical center or with a medical organization is what causes fear and terror to your family ... you are thus putting others before yourself and your family. This is what I consider to be an essential motivator.”*

As an example of willingness to sacrifice, many participants described their profession as humanitarian and therefore understood an obligation to take certain risks while performing their duties given the exceptional circumstances. Participant M46 (DOC), for example, said:

*“Our profession is humanitarian and requires us to be in dangerous places ... the shelling and danger did not deter us from treating the casualties and wounded. We were doing our duty perfectly. The Lord of the worlds (Allah) protected us.”*

Another participant went much further by describing his willingness to sacrifice himself as a “martyr” for the sake of the injured according to his values and devotion. He said:

*“I am a doctor and a Syrian citizen, and I am ready to be a martyr for the good of my people, and I would be proud and honored to do so. I will not flee as many have done for fear of being killed and bombed, but I will die in this country.” (M50, DOC)*

Many participants linked these principles and values characterized by selflessness to their religious faith. For instance, participant M49 (DOC) described supplication and trusting in God to do their work: *“By the grace of God, we did not intentionally fall short in performing our duties.”* In another example, participant M31 (DOC) said: *“We have been working sincerely. We were trying to give with as much as God grants us the ability.”* One participant explained that he struggled in his work for the sake of God and did not expect a reward in return except God’s reward. By embracing these virtues (faithfulness, sacrifice, and altruism), relying on God, and recognizing the presence and power of God in one way or another, healthcare workers in Syria find ways to come to terms with their feelings about the challenges and dangers they are forced to live through.

It is common for frontline healthcare workers to be hailed as heroes and, in the media, correlated to veterans who have served in wars for enduring adversity and hardship while providing care to others (Sumner & Kinsella, 2021, p. 2). This was observed in the present study, where some participants described viewing their sacrifices as heroic acts being immortalized in humanity’s history generally and in Syrian history particularly. One participant claimed that the public treat doctors during the war “as precious stones” due to their scarcity and integral value. This treatment represents a kind of social support provided to healthcare workers in honor of their sacrifices for the public good. In turn, higher levels of social support contribute to healthcare workers’ resilience and positive mental health (Sumner & Kinsella, 2021, p. 3).

Moreover, the ability to provide unconditional assistance and treatment to the injured was cited as a reason for promoting positive mental health for healthcare workers. One of the participants, for instance, directly expressed that he finds happiness in the act of caring for others: *“Glory be to God, there is pleasure or joy that you feel when you offer help to others, and only those who have tried it know it.”* M31 (DOC). Some participants, in fact, considered that adopting the values of sacrifice and altruism during the war is a part of their professional duty toward society. Many participants observed a willingness to sacrifice themselves, their time, and their money for a higher purpose, which is to treat the injured and save lives. From the perspective of a healthcare worker, everyone, no matter who they are, is at risk of injury and experiences distress, and at some point will seek out the help of others for support, including healthcare workers specifically for medical and emergency care. Those devastated by the war in their communities make up healthcare workers’ families, their friends, and the people of their country, adding a personal element to their duty. The experiences of participants in this study echo the experiences of healthcare care workers during other disasters, in that, when they accept the risks of their work and take care of their patients diligently, some level of sacrifice is inevitably required (O’Mathúna, 2019, p. 187).

Numerous studies show that most emergency workers adhere to their duties regardless of the challenges and risks of their tasks (O’Mathúna, 2019, p. 189). In this present study, it became evident that some participants applied altruism during

patient care by placing their patients' interests above their own. In fact, altruistic care has a unique, historical relationship to the nursing profession, and through this association, altruism developed as a humanitarian principle involving love, compassion, and responsibility on the part of individuals towards their fellow human beings to alleviate suffering (Slettmyr et al., 2017, p. 1).

For example, a study conducted in Iran showed that nurses demonstrated altruism while caring for patients infected with COVID-19 during the pandemic, recognizing the principle as a part of fulfilling their professional obligations (Khanjarian & Sadat-Hoseini, 2021, p. 773). The nurses in this study also reported that caring for the sick made them feel "like superhumans" and soldiers with a calling to defend public health (Khanjarian & Sadat-Hoseini, 2021, p. 773). In another study conducted in Iran, nurses, aware of the potential physical risks, nevertheless entered destroyed hospitals immediately after the 2018 Kermanshah earthquake to collect medical equipment to care for the many casualties requiring treatment (Moradi et al., 2020, pp. 915-916). Moreover, many nurses willingly exceeded the standards and norms of their duties by providing a wide range of services to patients (Moradi et al., 2020, pp. 915-916).

These examples illustrate and help to understand the importance of heroic virtues as motivating factors for healthcare workers to continue their work in exceptional and unimaginable conditions. Heroic behavior can sometimes give life meaning due to an increased sense of purpose and coherence (Sumner & Kinsella, 2021, p. 3). Adopting these virtues in severe crises, such as the Syrian crisis, can therefore help healthcare workers alleviate distress and burnout, bearing in mind the significant mental health consequences associated with disasters (Sumner & Kinsella, 2021, p. 2).

Furthermore, Slettmyr et al. (2017, p. 2) emphasize the importance of values like altruism within nursing and other medical professions because it connects the human spirit to the work that is performed. Turning nursing into a technical profession (i.e., a job without attachments to a calling) may lead to patients' dependence and vulnerability being ignored or considered unnatural, which could further cause a loss of willingness to stand with patients in the dilemma to care for the "other" versus the duty to protect themselves and their families (Slettmyr et al., 2017, p. 2). In such a scenario, the ability of healthcare organizations to fulfill their obligations to mobilize healthcare workers and provide health care to the entire population during disasters and wars is encumbered (Slettmyr et al., 2017, p. 9). Therefore, strengthening virtues among healthcare workers and preparing them to adopt them in exceptional and catastrophic conditions can contribute to the success of the continuity and achievement of the goals of medical organizations.

The real-life stories told by participants in the present study can be used in this way to promote the development of virtues such as sacrifice and altruism in meeting the challenges of healthcare work during wars. According to O'Mathúna (2019, p. 194), sharing stories of courage and heroism to encourage thinking about what character traits are necessary to deal with life's dangers is evident as a tool

commonly used throughout human history. Moreover, promoting the moral virtues of healthcare workers can contribute to their employment of personal integrity and conscience when balancing intractable ethical dilemmas and, in particular, the duty to care with their other duties (O'Mathúna, 2019, pp. 193-194). Nevertheless, for virtues to truly benefit healthcare workers, international laws must be adhered to and healthcare workers must have their workplaces secured and protected during wars.

Although sacrificial behavior prevailed among many participants in this present study, this was not the case for all of them. Some participants fled Syria during the war, as other healthcare workers in Syria have done. Their decision to leave is understandable given the participants' experiences in the war and the massive injustice, danger, and threats they and their families faced. Healthcare workers face this dilemma in other types of disasters; for instance, a report on the outbreak of SARS in Toronto found that some healthcare workers refrained from caring for SARS patients, questioned the level of protection for them and their families, or left the profession (O'Mathúna, 2019, p. 187).

Other studies have closely evaluated healthcare workers' decisions to either leave their post or leave the profession entirely to further understand the circumstances and reasons for doing so during disasters. For instance, in one study that asked healthcare workers whether they were willing to respond and continue working during times of disasters and pandemics, the rates of willingness to work at these times were variable according to the context and nature of work and the risks associated with work activities (Qureshi et al., 2005, p. 378). The results indicated that healthcare workers were more willing to report to work during a mass casualty incident (86%), environmental disaster (84%), and a snowstorm (80%), and less willing during a chemical event (68%), smallpox epidemic (61%), radiological event (57%), and SARS outbreak (48%) (Qureshi et al., 2005, p. 378). One-third of participants (32%) in a 2010 study reported that they would not be willing to respond to their healthcare job in the event of a severe influenza pandemic (Balicer et al., 2010). Another study published in 2009 found that 36.2% of healthcare workers would not go to work in the event of a potential influenza pandemic (Wicker et al., 2009, p. 864). Furthermore, one study confirmed that the presence of healthcare workers at work during an influenza pandemic is determined by their perception of risks related to personal and work activities. As the most recent influenza pandemic wave evolved and increased the number of infected patients, and therefore the number of infections and deaths among healthcare workers, report to work decreased from 88% to 52% (Dionne et al., 2018). This study also found that the most significant personal barriers to being willing to report for work were protection of personal health (50%) and protection of family health (36%) (Dionne et al., 2018).

The wartime conditions that healthcare workers have experienced in Syria could potentially worsen and grow even more complex in the case of a pandemic. Healthcare workers in Syria are a direct target of bombing and killing, but this violence could evolve into other forms of stigma and discrimination if they need to

also serve on the frontlines of an epidemic. Thus, as emphasized in previous chapters, the following questions arise in order to address one of the primary sources of tension for healthcare workers in war: are they morally obligated to put themselves at risk in order to treat and rescue patients, and what are the limits of these risks? (See Chapter 5.1, sub-heading, “The duty to care”.)

The challenge of precisely defining the parameters and limits of acceptable risks healthcare workers ought to take on during conflict remains a poignant issue for medical ethics. Healthcare workers who care for patients during epidemics, for example, are exposed to the risk of infection, but this risk can be mitigated by using personal protective equipment or other preventative measures. In war conditions, however, the risks to workers can be greater and more complex. For instance, are healthcare workers morally obligated to remain in a hospital and treat victims despite the ever-present threat of a sudden bombing? Are they obligated to rescue the injured outside the hospital, knowing that ambulances can be directly targeted? Are they obligated to treat the injured when it is contrary to the immoral orders of the authority and they could be threatened, arrested, tortured, or killed? Are they obligated to care even though their families may be in danger?

Many questions, therefore, are raised for healthcare workers due to the complex circumstances of the war in Syria. Some codes and ethical frameworks attempt to address this issue by defining acceptable levels of risk, but do so in an abbreviated manner or using unclear terms; moreover, each framework addresses this issue differently, so currently, no clear standard or consistency of application exists. For example, the WMA Regulations in times of armed conflict and other situations of violence state “[p]hysicians must in all circumstances... not abandon the wounded and sick” (WMA General Assembly, 2017). This statement is brief, vague, and fails to address the specific facets arising from the issue. In contrast to WMA Regulations, the British Medical Association (BMA) guidelines asserted that physicians have no obligation to provide high-risk services without appropriate safety and protection (British Medical Association, 2021).

The AMA’s Code of Medical Ethics also remains vague, stating that physicians must “provide urgent medical care during disasters”, and that such care is an obligation “even in the face of greater than usual risk to physicians’ own safety, health or life,” but does not specify what risks should be taken (American Medical Association, 2020). The AMA redressed this issue and added a new statement in the “Code of Medical Ethics Opinion 8.3,” clarifying that physicians should weigh the risks of providing care to individual patients today versus the ability to provide care in the future (American Medical Association, 2020). This leaves the issue to physicians and requires that they make an evaluation of their ability to balance the importance of immediate care with future care. Asking physicians to do this on their own, however, correlates the assessment of risk-to-self versus risk-to-patient with their personal conscience rather than as part of their professional obligations, leaving physicians in moral turmoil over ethical decision-making. For example, they may interpret patient abandonment as unethical and as a result feel guilty, which could

cause moral distress or moral injury. Billings et al. define moral injury as “the psychological distress caused by actions, or inactions, which violate an individual’s moral code, or a sense of betrayal by others” (2021, p. 13).

The issue of sacrifice and rescuing people is also raised in Islamic jurisprudence. According to many fatwas in Islamic jurisprudence, Muslims must do everything to save the human soul or ward off harm from it (Islam Q&A, 2018; IslamWeb, 2011; & Iftaa’ Department, 2012). For example, while it is the duty of every Muslim to help and rescue the drowned whenever he or she is able to do so, the duty is conditional on based on being able to fulfill it (e.g., whoever can swim has a duty to rescue) (Islam Q&A, 2018; IslamWeb, 2011; & Iftaa’ Department, 2012). Notably, the conditional feature of this obligation assumes safety. If the rescuer thinks that it is likely that he or she will perish during the rescue attempt because they do not know how to swim, then he or she is not obligated to rescue the drowning person. Doing so would involve throwing oneself into perdition, which is prohibited by Islamic law (Islam Q&A, 2018; IslamWeb, 2011; & Iftaa’ Department, 2012).

### 5.3.2 Other values at stake

During this present study, the participants indicated that, despite their inability to apply certain ethical principles and moral values to varying degrees during the war, they nevertheless continued to believe in the importance of those principles and values. For example, the principles of justice, neutrality, honesty, transparency, and independence were among those with the greatest implementation challenges. To better understand how the challenges hindered applying these ethical principles and values, I identified and studied those most frequently cited by participants, grouping them into four categories: the risks from providing care, stewardship of resources and work challenges, corruption and organizational pressure, and psychological, emotional, and social stress (see section 5.2).

As summarized in section 5.2, risks associated with providing care, for example, impede the duty of care principle and place healthcare workers in a dilemma of either leaving and abandoning patients or staying to care for them while abandoning personal safety. Caregiving risks affect the principle of impartiality and neutrality of healthcare workers when health workers and their health centers became targets for military strikes, in addition to the exposure of civilian facilities to destruction and intensified bombardment, leading to hundreds of massacres. These examples demonstrate the unique psychological pressures healthcare workers face during war and illustrate that the applicability of certain ethical principles during wars is distinguishable from other types of disasters. For example, natural disasters (specifically, those not directly created by human activity) do not discriminate who, where, or when they strike, nor do they attack a particular group to achieve political and military goals; moreover, the disaster event itself is beyond human control. Wars begin and end in several ways, including political and military understandings, based on human decisions. International pressure can also be applied to enforce international

and humanitarian laws that require the neutralization of civilian and medical facilities.

While a few participants said that there was no difference in the application of moral values between peacetime and wartime, most observed a significant difference based on their own experiences. For example, participant M49 (DOC) said:

*“In times of disaster, a person is challenged to test his ability to sacrifice for the values he believes in. In peacetime, things are very easy, but application in wartime is difficult.”*

Whereas participant M36 (NUR) said:

*“Of course, the application of moral principles differs between peacetime and wartime. In peacetime, application, follow-up, and training are easy things ... because, in peacetime, you usually have the resources to enable you to do so. Also, the authorities do not interfere in your work. You can achieve fairness and equality in the provision of services because you have sufficient resources. In wartime, there is usually a shortage of resources; so, for example, you have to allocate intravenous fluids only to those who need them most. If they don't get these fluids, they will die.”*

Participant M50 (ANE) argued similarly:

*“In wartime, you work under certain psychological stress that you are not exposed to in times of peace ... you have concerns for your life while providing your services to people, and you have a scarcity of resources and an inability to quickly secure blood for patients or a vehicle to transport them. In peacetime, there is stability, and these things are available.”*

Participant M29 (DOC), using the principle of independence, presented an instructive example illustrating the difference between applying principles during war versus during peacetime. He said:

*“Even that the application of the principle of independence should differ between peace and war ... for example, in normal circumstances, when you treat a gunshot victim, you must write a report and hand it to the police; otherwise, you will be considered against the law. Can you do this in Syria during the war? If you do that, you will be sending the casualty to his death! This issue is very important. Because it is also mentioned in the guidelines of the International Code of Conduct, that you have to act according to the local laws. But in Syria, if you act according to the local laws, you will be an immoral person.”*

Participant M29 (DOC) also argued that making ethical decisions related to the community's health becomes the responsibility of healthcare workers in the absence of respective authorities during the war:

*“In wartime, the medical staff becomes responsible for managing the areas in which they work. They have to develop medical policies and make decisions and so on ... you are not normally responsible for managing resources or decisions related to community health ... but you, as a healthcare worker, are now considered as a health body ... you now play the role of a health ministry in every city.”*

Therefore, the responsibility falling on healthcare workers was twofold, for not only were they responsible for decisions related to the health of their patients, but they also had to make decisions related to the public's health. However, decision-making for the community's health without sufficient information, experience, or resources, further exacerbated by the pressures of daily psychological stress and physical danger, presents a significant challenge.

Both the ethical frameworks and the participants emphasized the importance of justice, fairness, and non-discrimination, each observing that these principles importantly relate to the equitable distribution of scarce resources during crises and wars. The data from participants, however, identified multiple interpretations of justice, revealing inconsistencies among healthcare workers when applying the concept of justice to decision-making. This was most evident in the issue of priority and triage. For example, some participants described following the "first-come-first-served principle", others evaluated prioritization based on how critical the case was and the degree of hope for recovery, and some considered the cultural and societal norms by prioritizing women and children.

Not all participants found that women and children were prioritized for care, pointing to a general issue of balancing the patient's interest against the community's interest. A few participants observed that children and women were regularly marginalized due to corruption and chaos. They also described how difficult it is to decide between the quantity or quality of services due to the scarcity of resources. For example, healthcare workers are often conflicted between providing services to a larger number of patients at the expense of quality (to prevent as many casualties as possible regardless of priority) or providing services to a smaller number of patients with appropriate quality.

Other factors that affected prioritizing and triage included high degrees of stress, emotional reactions, kinship with patients, severely lacking resources, and the number of casualties. One of the participants pointed out that determining priority in treatment was especially chaotic at the beginning of the war due to a lack of experience with triage. In several cases, the authorities and military also interfered in determining the prioritization of patients by forcing healthcare workers to treat military injuries before civilians, inevitably placing healthcare workers in a quandary when they tried to enforce the principle of non-discrimination. Interview data from study participants showed that, in cases such as this, many healthcare workers made a great effort to implement this principle, but that their efforts were met with significant obstacles or other dilemmas.

Moreover, discrimination is sometimes present based on political affiliation, appearance, kinship, religion, or national origin of patients. Some participants stated they prefer not to treat wounded fighters from the other side, while others defend every fighter's right to treatment. The intense daily violence against civilians, healthcare workers, and medical centers made it difficult for participants to cope with their emotional reactions and maintain impartiality. However, failing to achieve this balance effectually created a chaotic environment that caused additional ethical



dilemmas and upset the medical priority in treatment. The consequences of this disarray negatively affected patient care, rescue of the wounded, distribution of resources, and the satisfaction of medical staff with their choices and ethical decisions.

The present study also identified a discrepancy between participants' responses and the ethical frameworks regarding the principle of humanity. In the interview data, participants described primarily relying on the principle of humanity to guide their decision, yet this principle was only included in a few ethical frameworks. Humanity is an ethical principle often found in humanitarian organizations' ethical frameworks and codes but rarely in medical ethical frameworks. Nevertheless, the participants emphasized that their work and the goal of their profession are primarily humanitarian.

In applying the principle of humanity during decision-making, the most striking challenge healthcare workers face is how to secure personal safety. Some participants stated that it is their humanitarian duty to work and rescue the injured despite the regime's targeted bombing and direct dangers; however, balancing risk with their commitment to patient care remains very difficult. What the data reveals, moreover, is that the participant's decision between patient care and personal safety was very personal. Some participants stated they would prefer to sacrifice themselves and continue working under the highest levels of danger, while others chose to stay away from the risks and left their patients.

Notably, participants who shared their desire to take higher risks justified their choice using the humanitarian obligation to provide patient care, yet many did not provide clear boundaries as to what degree or extent of risk they are willing to take in their work. Would they be willing to, for example, move from one city to another to help the victims, treat the victims in secret without informing the authorities, or go under gunfire to rescue someone? These risks can lead to ongoing stress, trauma, injury, arrest, torture, extortion, or even death. On the other side, participants who refused to take risks clarified that a healthcare worker's decision, in the end, is personal, and that the loss of healthcare workers in general increases the difficulties of providing medical services in circumstances of war and scarce resources. Therefore, participants who shared that they consider the level of risk in their work do not prefer, for example, to rescue an injured person if they know that the road is fraught with danger and may cause the loss of their life. For others, continuing to work inside hospitals is itself a significant risk, since these institutions have also become a direct target of the bombing.

Finally, the principle of transparency presented a discrepancy between the ethical frameworks from the literature review and the participants' interview data. In many of the ethical frameworks, transparency is considered an important principle necessary for accountability, enhancing community trust, and confronting corruption. Transparency requires institutions and healthcare workers to be open and honest in patient and community engagement, and this engagement is expected in reciprocal by the public contributing to decision-making processes. However, few participants argued that following the principle of transparency was not more

important than the interest of the affected community, prevailing traditions, and the continuity of essential services (even if there were some faults). In this regard, some participants shared experiences where they had to hide medical errors to continue the work of their medical centers since the loss of the center's reputation could lead to the public's reluctance to seek health care despite the urgent need. Therefore, the interest of a larger group (people requiring medical care) and, arguably, even society as a whole, is given priority over the interest of individual patients as a result of the scarcity of medical centers during the war.

Nevertheless, some participants considered honesty as an important principle, but they stressed the difficulty and impossibility of applying it in some cases. For example, widespread corruption in society, weak community engagement in decision-making, and the absence of transparency long before the war are a few factors observed by participants that hampered their ability to apply the principle of transparency. In addition, some participants emphasized that honesty and transparency might put them in unenviable situations before the authorities or could expose them to violent reactions from patients, their relatives, or their followers. Moreover, participants shared that healthcare workers are subjected to direct pressure and threats from the authorities to avoid telling the truth.

The previously cited challenges and dilemmas have created a complex environment for healthcare workers in Syria who require patience, support, training, and protection.

## 6 Conclusion

Wars and armed conflicts subject catastrophic effects on afflicted societies unlike any other type of disaster, ranging from infrastructure damage to displacement and death on a large scale. While war is a man-made disaster, its effects can directly or indirectly cause disasters, such as food and water insecurity, epidemics, and famine. Wars can also be accompanied by other types of disasters. In Syria, for example, the COVID-19 crisis from 2020-2021 occurred alongside the ongoing war. The concurrence of multiple disasters causes high levels of insecurity due to obstruction of aid distribution and low levels of social cohesion (Bohnet et al., 2021, p. 494).

Moreover, the effects of wars are distinguished from natural disasters because the peaks of trauma cases often vary according to the intensity of conflict and battles (Handicap International et al., 2020, p. 16). The methods employed during conflict resulting in complex injuries among civilians and members of armed groups, which often require long-term specialized interventions that are difficult to provide in conflict settings, include imposing additional security restrictions and deliberately targeting specific communities and facilities, including medical facilities and healthcare workers (Handicap International et al., 2020, p. 16). In addition, unlike natural disasters, wars can be stopped or mitigated through international and political decisions and understandings, such as applying organizational and governmental pressure to implement international humanitarian laws that secure protections for civilians and medical facilities.

The war in Syria has lasted for many years and continues to cast a dark shadow over its people, including healthcare workers caring for those injured and in distress. During the war, healthcare workers have been exposed to unprecedented challenges, becoming targets of bombing, killing, siege, arrest, and torture. Moreover, healthcare workers continue to experience difficult situations that require them to make decisions with no clear or easy moral choice. Among these dilemmas are the decision to either stay and work despite the considerable risks or to leave and possibly regret one's professional failure; determining the degree of risk that one is willing to accept in order to fulfill professional duties of care; the trade-off between transparency and the reputation of medical centers that serve the interest of the afflicted community; and decisions about priority and equitable distribution of scarce resources, to name a few dilemmas.

The present study aimed to understand the experiences of healthcare workers and the difficulties and challenges that hinder applying existing ethical frameworks and codes for disasters within Syria's context of revolution and war. Gleaning insight from the participants in this study helped identify what ethical principles and values are difficult to implement as well as what values and principles are most valuable to healthcare workers in Syria. Understanding what ethical principles guide healthcare workers in Syria can further help decision-makers develop more appropriate health policies and ethical frameworks aligning with workers' reality in Syria. Moreover, comparing these values and principles with those included in the ethical frameworks, codes, and guidelines helped to identify gaps between theory and practice, specifically in the context of war, presenting the opportunity for broader application of the data.

Qualitative analysis of the interviews led to classification of the ethical challenges experienced by healthcare workers into four groups: the risks from providing care; stewardship of resources and work challenges; corruption and organizational pressure; and psychological, emotional, and social stress. The study also showed that both Syrian healthcare workers and the developers of ethical frameworks adopt many similar values and principles, albeit with two notable caveats, including but not limited to justice, humanity, respect, neutrality, privacy, transparency, beneficence, and nonmaleficence. The first caveat revealed that participants placed a high value on the principle of humanity, coinciding with the emphasis humanitarian organizations' give humanity within their ethical frameworks; however, medical ethics frameworks do not consistently address, let alone emphasize the importance of, the principle of humanity. The second revelation related to the value of transparency, equally appearing as a foundational principle in both medical and humanitarian ethical frameworks, yet identified by some participants in the interviews that the interest of the affected community, the prevailing traditions, and the continuity of important services were more important than following the principle of transparency in the time of war.

Furthermore, participants adopted several unique moral values not identified in ethical frameworks as a result of navigating their professional duties under the

circumstances of the Syrian war. These values emerged as healthcare workers were forced to cope with challenges that they did not experience in their professional lives during times of peace. These values are faithfulness, loyalty, altruism, and a willingness to sacrifice oneself. Many participants claimed that embracing these moral virtues and relying on spiritual faith has sustained them to endure the hardships and risks of the exceptional and catastrophic circumstances of the war in Syria. When these virtues are applied in tandem with their religious faith, participants observed how they contribute to alleviating psychological burdens, enhancing their patience, increasing their sense of pride in the work they are doing, and helping to accept their feelings about the challenges and risks they face on a daily basis. Thus, employing these virtues in severe crises, such as the one in Syria, could help healthcare workers in other contexts of war mitigate their distress and burnout.

Moreover, these particular values can also enhance the ability of healthcare organizations to fulfill their obligations in mobilizing healthcare workers and providing health care to the entire population during disasters and wars. Hence, it is important to promote these virtues among healthcare workers and prepare them for their adoption in exceptional and catastrophic circumstances. The real-life stories told by the participants in this study can be used to promote the virtues of healthcare workers on the front lines by sharing these stories in seminars, training, and qualification courses, or included as case studies in ethical tools and literature. Promoting the moral virtues of healthcare workers can contribute to their employment of personal integrity and conscience when balancing intractable ethical dilemmas (O'Mathúna, 2019, pp. 193-194).

Furthermore, in order for healthcare workers to benefit from ethical guidance, their workplaces and their physical security must truly be protected during wars; therefore, international humanitarian laws must be enforced. This can be accomplished by raising awareness and vigilant support of compliance with international humanitarian law and by stimulating dialogue between states, organizations, and healthcare and humanitarian workers. Raising the level of accountability and implementing new and robust mechanisms that investigate and punish violations of international humanitarian law against healthcare workers is an essential step toward securing their protection (Druce et al., 2019; Habrelian, 2020). The international community and the United Nations must shoulder their responsibilities in this regard; here, one can borrow Goniewicz and Goniewicz's assessment on the importance of applying international law, stating that "in the case of a "new war," it is very important that international humanitarian law is not toothless and is fully applied" (2013, p. 111).

One of the limitations of the study is that most of the participants were in areas outside the Syrian regime's control during their interviews. Many individuals who were contacted that currently live and work in areas under the control of the Syrian regime refused to participate in the study. Another limiting factor of this study is the low number of female participants. Still, by strongly focusing on the qualitative aspect of this study, a rich, in-depth analysis provided a greater opportunity for

understanding the experiences of healthcare workers and the unique principles they employ in their professional duties. To address the limitations of this study and provide a more robust background for the findings, future research should study the frequency aspect and try to include participants from areas under the control of the Syrian regime and a larger number of female participants. Moreover, future research should compare the ethical decision-making process and limits of healthcare workers' sacrifices in the event of war compared to other natural disasters and epidemics.

At last, recognizing the challenges and precarious tasks healthcare workers cope with during wars and other similar disasters could help volunteers, medical personnel, and humanitarian organizations deciding to work in Syria better understand the specific context and obstacles for ethical decision-making; where, moreover, attracting newfound attention and support of Syrian healthcare workers locally and globally presents a long-lasting benefit.

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Dani Nassif revised the translated interview quotations included in this dissertation. Dani Nassif holds a PhD in Modern Arabic Literature and Culture from the University of Münster, where he was a doctoral fellow at the DFG Research Training Group “Literary Form.” He currently works as coordinator of the “DAAD Hochschulkooperation: Regensburg, Bagdad, and Al- Nahrain”, as an adjunct lecturer at the University of Münster and the University of Göttingen, and as a copy-editor and translator in both Arabic and English.

Alana Monzon reviewed the dissertation for English language and formatting. Alana is a research assistant in the Ohio State University College of Nursing, currently working on a humanitarian and disaster research ethics project called the PREA tool. She holds a BS in Biology from Palm Beach Atlantic University and an MA in Bioethics from The Ohio State University.





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## 9 Appendix





## **9.1 Table 3. Analysis of the ethical frameworks and codes relying on the Arizona Code**

The list of the analyzed ethical frameworks and codes:

1. WMA Regulations in Times of Armed Conflict and Other Situations of Violence.
2. The Fundamental Principles of the International Red Cross and Red Crescent Movement.
3. Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs) in disaster relief.
4. Ethical Principles of Health Care in Times of Armed Conflict and Other Emergencies.
5. Challenging Operations: An Ethical Framework to Assist Humanitarian Aid Workers in their Decision-making Processes.
6. PHAP Code of Ethics and Professional Conduct.
7. Code of Ethics for Emergency Physicians.
8. Ethical Guidance for Public Health Emergency Preparedness and Response: Highlighting Ethics and Values in a Vital Public Health Service.
9. Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report.
10. Ethical Guidelines for the Development of Emergency Plans.
11. Guidance for the Ethical Allocation of Scarce Resources during a Community-Wide Public Health Emergency as Declared by the Governor of Tennessee.

Arizona Code: Principles and values		Coded segments from ethical frameworks and codes				
		1	2	3	4	5
1. Duty to Care		- duty to treat				Duty to provide care
	1.1. Duty not to abandon	not abandon the wounded and sick			In armed conflict or other emergencies, health-care personnel are required to render immediate attention and requisite care to the best of their ability	
	1.2. Duty to care despite risks					
	1.3. Duty to provide comfort care					
2. Soundness						Reasonable-ness
	2.1. Flexibility					
	2.2. Risk Assessment					Critical analysis
	2.3. Appropriateness					
	2.4. Information					
	2.5. Non-Diversion					
	2.6. Priority					



Arizona Code: Principles and values		Coded segments from ethical frameworks and codes				
		1	2	3	4	5
	2.7. Effectiveness	provide effective care to the wounded and sick		this Code of Conduct ... seeks to maintain the high standards of ... effectiveness		- Effectiveness - Cost-effectiveness - Efficiency
3. Fairness						
	3.1. Medical need and prognosis				no distinction is made between patients, except in respect of decisions based upon clinical need and available resources	
	3.2. Justice	- give the necessary care impartially and without discrimination - ensure access to health care without unfair discrimination	- Impartiality - bring assistance without discrimination	aid is given regardless of the race, creed or nationality of the recipients and without adverse distinction of any kind	- impartiality - In providing the best available care, they shall take into consideration the equitable use of resources - no discrimination of any kind	- Justice - Non-discrimination
	3.3. Consistency					

Coded segments from ethical frameworks and codes					
6	7	8	9	10	11
	- Cost-effective and efficient care is important so that resources are available to provide care when it is needed	Emergency preparedness goals should be pursued and implemented as effectively as possible			
I recognize the fundamental equality of all people	- Emergency physicians shall deal fairly and honestly with colleagues - impartiality - Emergency physicians should strive to treat consultants fairly - emergency physicians must attempt to reconcile the goals of equitable access to health care and just allocation of health care	- Distributive justice - Justice and Fairness	Fairness	- distributive justice - Fairness	
Impartiality	Emergency physicians shall respond promptly and expertly, without prejudice or partiality, to the need for emergency medical care				
making no distinctions on the basis of nationality, race, gender, religious belief, class, or political opinions	- justice		if particular groups receive favorable treatment, for instance in access to vaccines, this priority should stem from relevant factors	Justice	
			Consistency	Consistency	

Arizona Code: Principles and values		Coded segments from ethical frameworks and codes				
		1	2	3	4	5
4. Reciprocity						
	4.1. Protections for essential providers					Security
	4.2. Protections for essential personnel	- protect health care personnel and facilities - physicians must never be prosecuted or punished for complying with any of their ethical obligations - physicians and other health care professionals shall be identified and protected by internationally recognized symbols			health-care personnel, as well as health-care facilities and medical transports, whether military or civilian, must be respected by all	
	4.3. Protections for individuals				- health-care personnel respect patients' right to confidentiality - health-care personnel make their best efforts to ensure respect for the privacy of the wounded, sick and deceased	

Coded segments from ethical frameworks and codes					
6	7	8	9	10	11
			healthcare institutions have a reciprocal duty to support health-care workers		Reciprocity
		But while health professionals may have an obligation to submit themselves to risk for the sake of others, society (and the specific organizations that employ health professionals) has a corresponding obligation to protect them from known hazards while they are fulfilling their professional duties	institutional obligations to protect workers who face risks in providing care		

Arizona Code: Principles and values		Coded segments from ethical frameworks and codes				
		1	2	3	4	5
5. Proportionality						
	5.1. Privacy	- medical confidentiality must be preserved by the physician - the privacy of the sick, wounded and dead must always be respected				Protecting confidentiality
	5.2. Well-targeted					
	5.3. Limited application and duration					Timeliness
	5.4. Balancing obligations	- in armed conflict or other situations of violence, and in peacetime, physicians will need to weigh their obligation to the patient against their obligation to other individuals threatened			It is ethical for health-care personnel to disclose confidential information only with the patient's consent or when there is a real and imminent threat of harm to the patient or to others	



Coded segments from ethical frameworks and codes					
6	7	8	9	10	11
			Proportionality	Proportionality	
	<ul style="list-style-type: none"> <li>- Emergency physicians shall respect patient privacy and disclose confidential information only with consent of the patient</li> <li>- Hospital and prehospital providers must respect patient confidentiality and the dignity of all personnel involved</li> </ul>				
		To the extent possible, PHEPR should follow an approach that emphasizes the use of the least restrictive alternatives	Those restrictions ... must be appropriately limited in time and scale according to the scope and severity of the disaster		
			Professionals must balance this duty to the community against that to the individual patient		

Arizona Code: Principles and values		Coded segments from ethical frameworks and codes				
		1	2	3	4	5
6: Transparency						Transparency
	6.1. Accessibility					
	6.2. Full disclosure			we recognise the need to report on our activities, both from a financial perspective and the perspective of effectiveness		
	6.3. Documentation	keep adequate health care records				
	6.4. Communication systems					
	6.5. Openness			all our dealings with donors and beneficiaries shall reflect an attitude of openness		

Coded segments from ethical frameworks and codes					
6	7	8	9	10	11
	Emergency medicine business practices must be transparently ethical	- transparency	Transparency	- Disaster preparation efforts should be transparent to the public and to partners - Transparency	Deliberations regarding triage and allocation must be ... transparent
			Values that drive policy should be explicitly stated so communities can articulate, examine, affirm or reject, and modify proposed choices		
			officials must strive to communicate clearly those plans currently in place, and may also need to rely on real-time communication with communities		Communication
	- Emergency physicians shall communicate truthfully with patients and secure their informed consent for treatment				

Arizona Code: Principles and values		Coded segments from ethical frameworks and codes				
		1	2	3	4	5
	6.6. Public engagement					Engagement
7. Accountability				we hold ourselves accountable to both those we seek to assist and those from whom we accept resources		Accountability
	7.1. Public accountability					
	7.2. Duty to evaluate			we recognise the obligation to ensure appropriate monitoring of aid distributions and to carry out regular assessments of the impact of disaster assistance		

Coded segments from ethical frameworks and codes					
6	7	8	9	10	11
		community involvement	- Public entities charged with protecting communities during disasters have profound responsibilities - A public engagement process is crucial for drafting ethical policies that reflect the communities' values and deserve its trust		
		Accountability	Accountability	Accountability	
		Public accountability		public accountability	

Arizona Code:		Coded segments from ethical frameworks and codes				
Principles and values		1	2	3	4	5
	7.3. Individual responsibility					
8. Stewardship of Resources						Stewardship
	8.1. Duty to recover and restore	where conflict appears to be imminent and inevitable, physicians should, as far as they are able, ensure that authorities are planning for the protection of the public health infrastructure and for any necessary repair in the immediate post-conflict period				
	8.2. Specificity					
	8.3. Triage allocation plan					
	8.4. Duty to plan					

Coded segments from ethical frameworks and codes					
6	7	8	9	10	11
- Handling power responsibly - I accept responsibility for my work. I follow through on my commitments.	Emergency physicians shall act as responsible stewards of the health care resources entrusted to them	- Responsible civic response - In PHEPR, planners and public health officials must always be prepared to be accountable for their conduct in terms of the good reasons they had for deciding and acting as they did	Effective disaster planning will require individuals at all levels of the healthcare system to accept and act upon appropriate responsibilities	reasonable civic response	
	Emergency physicians should promote prudent resource stewardship		Duty to Steward Resources	Stewardship	Stewardship of Resources
					Duty to Plan





**9.2 Table 4. Analysis of values and principles that are different from those of the Arizona Code**

Ethical frameworks and codes						
	1. Beneficence	2. Independence	3. Duty to press governments	4. Respect	5. Humanity	6. Individual liberty
	<b>Coded segment</b>					
1	<ul style="list-style-type: none"> <li>- provide health care for anyone taken prisoner</li> <li>- advocate for regular visits to prisons and prisoners by physicians</li> <li>- Denounce and act, where possible, to put an end to any unscrupulous practices or distribution of poor quality/counterfeit materials and medicines</li> <li>- Be aware of the legal obligations to report to authorities the outbreak of any noticeable disease or trauma</li> <li>- do anything within their power to prevent reprisals against the wounded and sick or health care</li> <li>- Report unethical behaviour of a colleague to the appropriate superior</li> <li>- Report to a commander or to other appropriate authorities if health care needs are not met</li> <li>- give consideration to how health care personnel might shorten or mitigate the effects of the violence in question</li> </ul>	<p>complete professional independence, must be granted</p>	<ul style="list-style-type: none"> <li>- physicians have a duty to press governments and other authorities for the provision of the infrastructure that is a prerequisite to health</li> <li>- and to remind authorities of their obligation to search for the wounded and sick</li> </ul>	<ul style="list-style-type: none"> <li>- respect applies to all patients</li> <li>-respect the individual wounded or sick person, his/her will, confidence and his/her dignity</li> <li>- respect the right of a family to know the fate and whereabouts of a missing family member</li> <li>-respect the opinions of colleagues</li> </ul>	<p>the medical duty to treat people with humanity</p>	<p>research involving experimentation on human subjects is strictly forbidden on all persons deprived of their liberty</p>

7. Nonmaleficence (do no harm)						
<b>Coded segment</b>						
<ul style="list-style-type: none"> <li>- not take part in any act of hostility</li> <li>- not take advantage of the situation and the vulnerability of the wounded and sick for personal financial gain</li> <li>- not to give advice or perform prophylactic, diagnostic or therapeutic procedures that are not justifiable for the patient's health care</li> <li>- not to weaken the physical or mental strength of a human being without therapeutic justification</li> <li>- not to employ scientific knowledge to imperil health or destroy life</li> </ul>						

2	1. Solidarity	2. Universality	3. Unity	4. Voluntary service	5. Independence	6. Nonmaleficence (do no harm)
	<b>Coded segment</b>					
	Members of the Movement have no motive for offering assistance other than a desire to help: this is a powerful statement of solidarity	Universality	Unity	Voluntary service	Independence	the Movement may not take sides in hostilities
3	1. Respect	2. Neutrality	3. Humanity	4. Independence		
	<b>Coded segment</b>					
	- we shall respect culture and custom - we shall recognise disaster victims as dignified humans, not hopeless objects	aid will not be used to further a particular political or religious standpoint	the humanitarian imperative comes first	this Code of Conduct ... seeks to maintain the high standards of ... independence		
4	1. Nonmaleficence (Do no harm)	2. Respect	3. Humanity			
	<b>Coded segment</b>					
	Health-care personnel never accept acts of torture or any other form of cruel, inhuman or degrading treatment under any circumstances, including armed conflict or other emergencies. They must never be present at and may never take part in such acts	respecting the dignity of the person concerned	they shall provide the necessary care with humanity			
5	1. Nonmaleficence (Do no harm)	2. Beneficence	3. Solidarity	4. Vulnerability	5. Responsiveness	6. Inclusiveness
	<b>Coded segment</b>					
	Nonmaleficence (Do no harm)	Beneficence	Solidarity	Vulnerability	Responsiveness	Inclusiveness

7. Neutrality	8. Respect	9. Humanity				
<b>Coded segment</b>						
Neutrality	to ensure respect for every human being	Humanity				
<b>Coded segment</b>						
<b>Coded segment</b>						
7. Empowerment	8. Beneficiary-centeredness	9. Autonomy (Individual liberty)	10. Self-determination	11. Focus on the worst off	12. Sustainability	13. Poverty reduction
<b>Coded segment</b>						
Empowerment	Beneficiary-centeredness	Autonomy (Individual liberty)	Self-determination	Focus on the worst off	Sustainability	Poverty reduction

6	1. Nonmaleficence (Do no harm)	2. Respect	3. Independence	4. Neutrality	5. Humanity	
	Coded segment					
	the duty of humanitarian action to avoid jeopardizing lasting improvements of a situation or bringing about any other negative effects	- respect for the dignity of crisis-affected people underpins all humanitarian activities - I value the diversity of actors within and supporting the humanitarian sector and show respect for others in the professional community even when I disagree	- Independence - I strive to support the agency of others in all aspects of my work	Neutrality	Humanity	
7	1. Autonomy (Individual liberty)	2. Nonmaleficence (do no harm)	3. Resilience	4. Trustworthiness/Trust	5. vigilance	6. Courage
	Coded segment					
	Respect for patient autonomy	- Nonmaleficence - Emergency physicians should strive for technical and moral excellence and should refrain from fraud or deception - Emergency physicians shall not commit felonies involving crimes of moral turpitude - The duty to oppose violence	Resilience	-trustworthiness -honesty -Emergency physician clinical investigators must also be trustworthy, so that patient-subjects can trust they will not be exploited for power, profit, or prestige.	vigilance	Courage

Coded segment						
7. Respect	8. Beneficence					
Coded segment						
Emergency physicians shall respect the rights and strive to protect the best interests of their patients	<ul style="list-style-type: none"> <li>- The basic professional obligation of beneficent service to humanity is expressed in various physicians' oaths and codes of ethics</li> <li>- Emergency physicians shall embrace patient welfare as their primary professional responsibility</li> <li>- take appropriate action to protect patients from health care workers who are impaired or incompetent, or who engage in fraud or deception</li> <li>- Beneficence</li> <li>- overriding duty to maximize patient benefit</li> </ul>					

8	1. Respect	2. solidarity	3. resilience	4. Trust	5. Individual liberty	6. Beneficence
	Coded segment					
	Respect for Persons with Special Needs or Vulnerabilities	- Solidarity. - Resilient communities have robust internal support systems and networks of mutual assistance and solidarity.	Community resiliency and empowerment	- sustain public trust - Public trust is key to the success of any emergency planning	Equal liberty and human rights	Harm reduction and benefit promotion
9	No additional principles and values in framework number 9					
10	1. Beneficence	2. Nonmaleficence (Do no harm)	3. Individual liberty	4. Trust		
	Coded segment					
	Beneficence	- do no harm	- Preparation efforts must consider equal liberty - Respect for Autonomy - respect the equal liberty, autonomy and dignity of all persons	Preparedness activities should be based on and incorporate decision-making processes inclusive and transparent and that sustain public trust		



Coded segment						
No additional principles and values in framework number 9						
Coded segment						

11	1. Respect	2. Solidarity	3. Trust			
Coded segment						
Respect for Human Dignity	The purpose of this guidance is to provide government leaders and healthcare professionals with an ethical framework to guide and support decision making at the state, local and facility level during both preparation for and response to a community-wide emergency. By outlining and using these ethical values, the intent is to increase trust and solidarity among all stakeholders, including the general public.	The purpose of this guidance is to provide government leaders and healthcare professionals with an ethical framework to guide and support decision making at the state, local and facility level during both preparation for and response to a community-wide emergency. By outlining and using these ethical values, the intent is to increase trust and solidarity among all stakeholders, including the general public.				

Coded segment						

The war in Syria has lasted for many years and continues to cast a dark shadow over its people, including healthcare workers caring for those injured and in distress. During the war, healthcare workers have been exposed to unprecedented challenges, becoming targets of bombing, killing, siege, arrest, and torture. Moreover, healthcare workers continue to experience difficult situations that require them to make decisions with no clear or easy moral choice.

The present study aimed to understand the experiences of healthcare workers and the difficulties and challenges that hinder applying existing ethical frameworks and codes for disasters within Syria's context of revolution and war. Qualitative analysis of interviews led to classification of the ethical challenges experienced by healthcare workers into four groups: the risks from providing care; stewardship of resources and work challenges; corruption and organizational pressure; and psychological, emotional, and social stress. The study also showed that both Syrian healthcare workers and the developers of ethical frameworks adopt many similar values and principles. Yet, the participants adopted several unique moral values not identified in ethical frameworks as a result of navigating their professional duties under the circumstances of the Syrian war.

At last, recognizing the challenges and precarious tasks healthcare workers cope with during wars and other similar disasters could help volunteers, medical personnel, and humanitarian organizations deciding to work in Syria better understand the specific context and obstacles for ethical decision-making. Moreover, attracting attention for and support of Syrian healthcare workers locally and globally presents a long-lasting benefit.