The nature of disasters and their challenges to healthcare ethics

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Abstract

Disasters are exceptional events that cause damages on a scale that result in widespread unmet human needs that are critical and urgent. The exceptional circumstances in disasters may render established ethical norms of healthcare practice inapplicable or inappropriate.

Healthcare professionals who work in disasters are faced with choices that have direct impacts on the life, death, and suffering of both disaster victims, and themselves. Some choices faced may be dilemmatic choices between competing irreconcilable moral principles. Whilst some choices reflect uncertainty as to how to realise moral precepts. In these situations, there is an appeal for guidance that is fitted to the circumstances found within disasters.

Appealing to codes of professional conduct and ethics is problematic as many codes are either silent on the difficulties encountered in disasters, or overly demanding through the use of imperative language. Considering the relative weakness of published codes, universal principles of *first do no harm* and *do good* are offered as guiding principles. However, in disasters opportunities exist for harming through nondoing, creating the possibility that as aid is rendered to some, harm is occasioned to others. When considering doing good in disasters, maximising aggregate benefit is the established ethical framework employed. However, this framework's foundational assumptions of aggregation of benefits and harms, commensurability of different ends, and the privileging of the greater number are open to critique. Thus, the principles of *first do no harm* and *do good* are problematic in disaster settings.

Virtue ethics is proposed as a novel response to the difficulties faced by healthcare professionals in disasters. Virtue ethics provides an account of the healthcare professional as one who must choose with wisdom, courage and integrity in exceptional circumstances. Further, virtue ethics provides an understanding of how it is possible to act well in the tragic circumstances found within disasters.
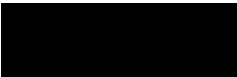
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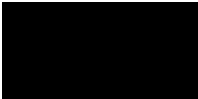
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Introduction

A personal reflection

In early 2006 I volunteered with an Italian aid agency. The agency ran a series of surgical hospitals for civilian victims of war, including one in Kabul, a place I would call home for several months. The hospital had one hundred beds, but more space could always be found in the laundry and linen drying room. The hospital had a CT[1] scanner, which at that time was the only one accessible to the public, and the capability to undertake neurosurgery, spinal surgery, and a wide range of surgery for blast, gun shot and blunt force trauma. The equipment available was sparse but adequate, with a bit of invention.

Early into a morning shift in June word reached the hospital that an ISAF[2] convoy had ploughed across a road junction causing multiple civilian deaths and casualties. Kabul erupted into civil war with ISAF, Afghan National Army and local police exchanging gun fire with civilians who were armed with whatever came to hand, paving slabs, rocks and a ramshackle assortment of firearms.

Within minutes the doors of the shipping containers kept in the hospital compound were opened and tents erected on the volleyball court. Three tented wards were opened within minutes. The emergency room with its two metal trolleys and single cylinder of oxygen became a treatment room for minor injuries and the management of closed fractures. The emergency department and resuscitation bay were now on the floor of a tent by the main hospital entrance. The hospital gates were locked, and armed security posted to the entrances. We awaited the inevitable. In a six-hour period the hospital received and treated over two hundred casualties. We admitted over one hundred casualties to a hospital that was already full. Car bombs exploded at the main hospital gate as bullets and shrapnel whizzed overhead. I was allocated the tented wards to manage, along with two Afghan nurses. It took a few sessions of heavy breathing and a lot of self-deception to convince myself that the few millimetres of canvas above my head would serve as an effective barrier to a bullet or a red-hot bomb fragment.

On that day a young man was brought in with a severe head injury, clubbed with the butt of a rifle. He could have been taken to theatre for neurosurgery but that would have taken one of the two operating theatres out of action for several hours. He was triaged 'expectant', expected to die. He was put on a low cot in the corner of a tent and left. He did not die. Once the main rush of casualties passed and we started to regain some control we managed to move all of the patients in the tented wards into the main building, including our 'expectant'. By now, this young man had spent over six

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[1] Computerised Tomography scanner
[2] International Security Assistance Force

hours lain on his back in 30ºC heat with no fluid management or attention to his breathing or oxygen levels. Now the young man found himself on the ward and he suddenly became a top priority, even though a few hours ago he was left to die. He survived to discharge, but with severe cognitive and physical disabilities that demanded round the clock care. If this young man had appeared at the front gate yesterday, or even tomorrow he would have been a top priority, rushed into theatre, then into intensive care. But not on that day in June 2006. This case from twelve years ago still follows me like a faithful dog, not always in sight but trotting along never far away. It is strange, but the question I ask again and again are not the obvious ones of *"What should we have done?"* or *"Did we do the right thing?",* but rather *"What have we done? What terrible harm have I been party to?".*

Core questions, purpose, and structure

The reflection above is certainly personal, I was there and it was my experience. But on that day, this experience was also shared by other nurses, doctors, pharmacists, physiotherapists, and hospital administrators who also found themselves confronted with a growing mass of people in desperate need. Further, that day in June was not unique, many other similar days had happened in the years that the hospital had been open. And the experiences in Kabul over ten years ago have been repeated many times since in the midst of conflict, and in the aftermath of natural and human-made catastrophic events. In this way, the personal is an expression of a general experience of healthcare professionals who find themselves in a disaster[3]. Some may think of disasters as exotic, as happening somewhere else in time and space. Yet we only have to think back to 2019 and the emergence of the coronavirus pandemic that has, and continues, to kill and disable to realise that disasters are not necessarily exotic, but also happen on our own doorstep. And even as this work is being written in Wales in the spring of 2022, doctors, midwives, and nurses in Eastern Europe are confronting the consequences of conflict, overwhelmed by casualties with devastating injuries yet stripped of the means to respond effectively to those in need.

This thesis is concerned with the difficult situations that healthcare workers face when they find themselves in a disaster. The ethical nature of these difficulties is revealed through the questions those in a disaster ask; *"What must I do"*, *"How ought we to respond?"*, *"May I ...?"*, *"Is it wrong to ...?".* For those in a disaster, these questions carry great import. The death or life, suffering or rescue, of individuals turns on the answer to these questions. Further, for those who find themselves in a disaster, such questions carry the possibility of lifelong doubt, regret, remorse, or guilt. In short, when faced with these questions the costs of getting it wrong are not trivial.

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[3] This phrase is used to capture those who choose to go to a disaster as a disaster responder, and to those who find themselves by accident in a disaster; the different experience of these two is explored in detail in chapter two.

When we reflect on the ethical questions healthcare professionals in a disaster ask, such as *"What ought I do?"*, we can read an appeal for guidance. Yet this appeal for guidance can only be responded to with two further questions. What sort of guidance fits the exceptional circumstances that arise in disasters? And in addition, what guidance is useful, and what burdensome, holding in mind the dual identity of nurses, doctors, midwives etc. in a disaster as both an agent of aid and also disaster victim? A critical exploration of the ethical guidance that is available to healthcare professionals in a disaster is a central concern of this thesis.

One of the features of disasters that will be argued for is that disasters present numerous opportunities for doing good paired with an inability to respond to all of these opportunities. As a minimum, this leaves good undone. Yet, as one explores the experience of those in a disaster and the circumstances that arise in disasters, not only is good left undone, but there is a growing unease that harm is occasioned much more frequently than many would credit. In disasters, it is possible to conceive of, and even encounter, circumstances where the occasioning of some degree of harm is an unavoidable feature of interventions aimed at bringing aid.

The possibility that occasioning harm cannot be avoided in disasters may be difficult to comprehend by both onlookers and by those who find themselves in a disaster. This difficulty in comprehension flows from exceptionality and fundamental differentness of disasters. Disasters present radical challenges to established patterns of comprehension, values, and beliefs. Disasters hold the possibility of upending and confounding our belief in a rational, ordered world that is amenable to control. Healthcare professionals who find themselves in a disaster have to try to make sense of this radically different world that renders past ways of acting and choosing redundant. It is also the case that the choices that face those who work in disasters often impose significant burdens on those who must choose. Choice may be tragic, leaving those who choose feeling damned if they do yet damned if they do not. In a way, part of the disastrousness of disasters is the presence of tragic choices that have to be made, choices that have the possibility to haunt the lives of those who have to make them. Yet arguably, even in the face of such tragic choices, there is the possibility of acting well even in the drastic circumstances found in a disaster. Further, for those who work through, and emerge from, a disaster there is the possibility that a meaningful, though not necessarily happy, story can be told; a story of an individual of integrity and courage who has acted well.

The purpose of this thesis is, in broad terms to explore the difficult choices those in a disaster have to make, the guidance available to them, and the implications of such guidance. The work ends with a consideration of the situation of the healthcare professional as one who must choose, but choose in a nonideal world where the stakes are high. A novel response that draws on virtue ethics is

offered as a response to the difficulties encountered by healthcare professionals who must choose in disasters.

This thesis develops over three stages. The first stage consists of chapters one and two. These chapters are essentially descriptive. Chapter one sets out to describe those features that lead certain events to be marked out as disasters. Key themes presented and discussed are the nature of loss and unmet need, and the exceptionality of disasters. The implications of these features to those who work in disasters are developed. Chapter two describes the experience of those who find themselves in a disaster by drawing on research and reflective accounts of healthcare professionals who have worked in disasters. Their experiences tell of the difficulty of responding to overwhelming need and the difficult choices they have to make, knowing that their choices will benefit some but may harm or impose burdens on others. The position of healthcare professionals in a disaster as both victims of that disaster and agents of aid is explored. This position introduces questions as to how to reconcile the dual roles of being a disaster victim and an agent capable of providing aid to others in need. Chapter two ends with a suggestion that healthcare professionals in a disaster should be able to turn to ethical resources to provide guidance when faced with difficult choices.

The second stage of this thesis provides a critical analysis and appraisal of ethical resources that healthcare professionals in a disaster can call on. Chapter three explores the usefulness of published codes of professional conduct to those who find themselves in disasters. A conclusion is reached that codes are largely silent on the particular difficulties encountered in disasters. However, some content can be seen to have a bearing on the healthcare professional in a disaster. Whilst other content can be seen to address more or less directly one or more problems faced in disasters. However, through the use of imperative language, many codes can be seen to place obligations on healthcare professionals in disasters that are overly demanding, or impossible to meet. Chapter three ends with a suggestion that other principles can be effectively employed as ethical resources to offer guidance to those in a disaster.

Chapter four provides a critical analysis of the principle of *first do no harm* as it applies in disaster contexts. This chapter draws heavily on the arguments of Joel Feinberg and Shelly Kagan (Feinberg, 1984; Kagan, 1989). An expansive view of harming is developed. This expansive view considers harming as both actions and inactions which interfere with another person's pursuit and fulfilment of their interests. The implications of this view of harming for those who work in disasters are developed, leading to a conclusion that the possibility of harming in disasters are numerous, even to the point of being ubiquitous. Consideration is also given to nondoings and morally culpable omissions. A conclusion is reached that the principle of *first do no harm* is difficult to fully realise in the exceptional circumstances that arise in a disaster.

Chapter five considers the principle of *do good* as it applies in healthcare practice in disasters. An analysis of patient prioritisation in normal times and in disaster contexts is presented. Through this analysis, a disaster healthcare orthodoxy is developed. It is argued that this orthodoxy gives pre-eminence to the principle of maximisation of aggregate benefit within a consequentialist ethical framework. Critical questions are asked as to what ends should be maximised, whether or not benefit and harms do in fact aggregate across individuals, and the commensurability of different ends. The chapter ends with a suggestion that advocacy for different courses of action is a more realistic representation of what actually occurs in disasters, rather than an economic balance sheet of calculable benefits and harms. By introducing advocacy in place of economic calculation, space is opened for considerations of healthcare professionals in disasters as individuals who must choose. This introduces ideas of how to choose well; a question that can be addressed through virtue ethics.

The third stage of this thesis consists of chapter six dedicated to the contribution of virtue ethics to disaster healthcare. Chapter six presents a view of virtue ethics and explores disaster healthcare as a virtuous practice that calls on practical wisdom, courage, and integrity. Arguments in favour of virtue ethics are presented, and a position forwarded that virtue ethics is prior to other normative ethical frameworks. Suggestions are also put forward as to the practical implications of virtue ethics for aid delivery systems, and virtue permissive disaster response systems.

A conclusion follows chapter six that offers a review of the thesis. There is a final reflection on the events of June 2006 in Kabul and some personal notes as to the experience of working in and through a tragic event.

Notes about language

The relationship between the terms ethics and ethical, and morals and morality is problematic. A quick internet search of the difference between these two sets of terms throws up multiple results from a range of different information sources. For some, ethics and morals and their related terms can be used interchangeably. Whilst for others, ethics and morals are conceptually different, with varying accounts of what the conceptual differences are. From here on the intention is to follow the account laid out by Beauchamp & Childress (2019). Ethical terms will be used for ideas, concepts and rules derived from normative theories of right and wrong, and obligatory, prohibited and permitted actions. Morality and morals will be applied to subjectively held norms of behaviour and values that are widely shared in communities, including professional communities.

There is much debate as to what to call those people who survive disasters; victims, survivors, disaster affected population. Whilst recognising the possible negative connotations of passivity, for this thesis, those who are affected by or survive a disaster will be named as victims.

Chapter 1: What is a disaster?

Introduction

When engaging in an exploration of the ethical issues that face those who deliver healthcare in disasters, there is a need to have an understanding of the conceptual landscape of what a disaster is. It's no exaggeration to claim that many people would express confidence in their ability to pick out disasters and non-disasters. When considering what a disaster is, specific events leap to mind; Hurricane Sandy that rolled up the east coast the United States of America in October 2012, Cyclone Nargis that caused extensive damage and loss of life in Myanmar in April 2008, the Boxing Day Tsunami of December 2004, the Great Hanshin Earthquake that struck the Japanese city of Kobe in January 1995, the capsizing of the ferry Herald of Free Enterprise just outside of Zeebrugge harbour in March 1987, the nuclear reactor fire that occurred in Chernobyl in April 1986, the slippage of the coal waste tip that engulfed the primary school in Aberfan in October 1966. These events have a name and a location in time and space; we can point and say *"There, there is a disaster"*. However, if we take a step back, we find the term disaster applied to a broad sweep of events covering everything from everyday life to global events. Scanning the headlines of news outlets throws up *'wedding day disasters'*, *'barbeque food poisoning disasters'* and *'cosmetic surgery disasters'*. Whilst at the same time we see headlines about *'world heritage disasters'* referring to the intentional annihilation of historical artefacts in recent conflicts, whilst loss of animal species or natural habitats are described a *'biodiversity disasters'*. Oil spills and industrial accidents are identified as *'ecological disasters'*. Even globally pervasive diseases such as malaria or HIV-AIDS are termed *'public health disasters'*.

Some disasters can be seen to arise from natural events such as the movement of the earth's tectonic plates giving rise earthquakes, volcanic eruptions, and tsunamis, or from weather phenomena such as hurricanes and cyclones, droughts, or flooding. Other disasters seem to be more closely tied to human activities such as transportation accidents, the failure of the built environment such a bridge or building collapse, or the failure of safety systems in industry leading to explosions, fires, and the release of materials the poison the environment and present a risk to human health. In addition, there are those disasters that arise from natural processes that are amplified by human activity or negligence. Land management practices have been shown to increase the likelihood and severity of landslides and flood events, whilst poor construction methods has been associated with building collapse during earthquakes, and large scale development projects can have serious unexpected negative impacts on soil quality and water supplies (Green, 2005; Knapen, et al., 2006; Tibbetts, 2006; Waehler & Dietrichs, 2017).

Disasters seem to be both large and small, both globally significant and intimately personal. Some disasters seem to exist at a macro-level creating large numbers of victims from the release of catastrophic forces. By comparison, the personal and household disasters seem to exist on a micro-level; devastating to those involved, but where the world beyond does not seem to miss a step. When faced with such diverse usage of the label 'disaster', our initial confidence in being able to say *"There, there is a disaster"* might be shaken. We might struggle to see how such a wide range of events can all be truly disasters, we might start to think in terms of legitimate and non-legitimate uses of the disaster label, or grow cynical about the melodrama of labelling every personal upset as a *'disaster'*. This disquiet points to a tension between what we can see as large-scale macro-disasters and the more intimate and personal micro-disaster. For the discussions that follow attention will be directed at large scale macro-disasters that capture the world's attention. Events that even those outside of the disaster can point to with confidence and say *"There, there is a disaster"*; the earthquakes, floods, cyclones, shopping mall fires and train wrecks that we can point to in time and space and name. However, there is a risk that a focus fixed primarily at the macro level of large-scale events fails to appreciate the intimate personal tragedies that exist within large-scale events. Thus, a tension can be seen to arise in disasters that recognises the pull between the disaster as a personal and individually experienced event and the disaster as a significant large-scale macro-event. This is a point to be returned to below when exploring the characteristics of doing good in disasters where there is an emphasis on the needs of the many over the needs of the one.

Formal definitions of 'disaster'

One starting point for addressing the question *What is a Disaster?* is to seek a formal definition of disaster produced by an authoritative body, and indeed such definitions do exist. The United Nations Office for Disaster Risk Reduction (UNDRR) provides the following definition of a disaster:

> *"A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability, and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.*
>
> *...*
>
> *Small-scale disaster: a type of disaster only affecting local communities which require assistance beyond the affected community.*
>
> *Large-scale disaster: a type of disaster affecting a society which requires national or international assistance."*

(United Nations Office for Disaster Risk Reduction, 2020)

Likewise, the International Federation of Red Cross and Red Crescent Societies (IFRC) has one:

> *"Disasters are serious disruptions to the functioning of a community that exceed its capacity to cope using its own resources. Disasters can be caused by natural, man-made and technological hazards, as well as various factors that influence the exposure and vulnerability of a community."*

> (International Federation of Red Cross and Red Crescent Societies, 2020)

as does the World Health Organisation (WHO):

> *A disaster is an occurrence disrupting the normal conditions of existence and causing a level of suffering that exceeds the capacity of adjustment of the affected community.*

> (World Health Organisation, 2020)

so too does the Federal Emergency Management Agency (FEMA) of the USA:

> *"Major Disaster - "Major disaster" means any natural catastrophe (including any hurricane, tornado, storm, high water, wind driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby."*

> (Federal Emergency Management Agency, 2019)

Similar definitions are also used by the European Commission, the International Union for Conservation of Nature and Natural Resources (IUCN), the Centre for Research on the Epidemiology of Disasters (CRED), and the World Medical Association (WMA) (Centre for Research on the Epidemiology of Disasters, 2020; European Commission, 2019; International Union for Conservation of Nature and Natural Resources, 2020; World Medical Association, 2017). Despite their apparent variety of wording used in formal definitions of disasters produced by authoritative bodies, they all can be seen to be variations on a common theme. This common theme runs thus: there is an event, the event causes damages that lead to unmet need, ordinary responses are insufficient and extraordinary responses are needed to limit losses.

Many of the formal definitions from response organisations emphasise the need for some form of extraordinary response in the face of exceptional losses as the characteristic that marks out an event as a disaster. By emphasising the need for an extraordinary response, we can see that one of the purposes of formal definitions of disasters produced by disaster organisations and other authoritative bodies is to provide the 'on switch' for a response (Porfiriev, 1998). As such, these formal definitions of disasters can be seen as pragmatic declarations made by organisations and response agencies that reflect their area of concern and their response mandate. In this way, the definition of a disaster used

by FEMA clearly conveys its area of concern as being a certain pre-defined set of major events in the United States of America that create losses, hardship, and suffering that exceeds the response capacity of local and State governments. As a contrast, consider the following taken from the World Health Organisations discussion of its role in emergencies:

> *"Emergencies can happen in any country, at any time. When disaster strikes, it can seriously disrupt the functioning of a community and people will depend on help from the outside. But a lot can be done to prevent and reduce the effects of disasters as well as to strengthen the response of communities at risk.*
>
> *...*
> *To reduce future risks and human and material losses, WHO helps countries build resilience in health systems by strengthening emergency risk management, an approach which includes measures ranging from prevention to preparedness to response and recovery"*

(World health Organisation , 2019)

For the WHO, no geographical limits are placed on where a disaster may occur, and no pre-set causative events are prescribed. A further point of contrast between FEMA and the WHO conceptualisation of disasters is the approach to disaster avoidance. FEMA is a response agency and defines events as those events to which it can respond. For the WHO, disasters are not only events to be responded to, but also events that can be prevented. In this way, the WHO can be seen to extend the scope of its area of concern away from events that have happened to include events that may happen. These points illustrate the concept of disaster definitions as pragmatic declarations that can be seen to be a reflection of the area of concern of a particular organisation. However, these definitions from FEMA and the WHO, along with the definitions from the UNDRR and the IFRC, do serve to highlight one feature that can be taken to be a necessary condition in large scale, community level disasters and that is the presence of an imbalance between disaster derived need and the ability to meet that need. The overwhelming level of need that arises in disasters arises from the widespread losses that are created in destructive events such as typhoons, earthquakes, famines, and floods.

Following a disaster, we can see in a very real and empirical way destruction of homes, roads, schools, farmland, food stores, trucks, and hospitals. We can also tally up the lives lost and the numbers of missing. We can also tally up the numbers made ill or injured. The losses that constitute a disaster can seem varied, reflecting local situations such as the nature of the built and managed environment, where people live and how people earn a living and construct a livelihood. However, despite the variation in what is lost, some order can be brought that allows a more systematic understanding of disaster losses. We can use the notion of different forms of capital to express what is lost in disasters.

Forms of capital and disaster losses; disasters as loss of utility

Broadly speaking, capital is those resources and assets that can be used for the satisfaction of wants (Hodgson, 2014). Capital can be gained, developed, but also lost. Some forms of capital can be gifted or traded or exchanged for other forms of capital. Five forms of capital can be identified that people use daily to create livelihoods and ensure their well-being

- Human capital – physical abilities, strength, vitality, skills, knowledge
- Social capital – social position and esteem, cooperation and joint enterprise, friendship, trustworthiness, and reliability
- Physical capital – objects and artefacts, houses, cooking pots, land, hospitals, sewing machines, cars, and cameras; utilities, water, sanitation systems, telecommunications
- Financial capital – cash, savings, insurance, credit
- Natural capital – water, flora and fauna, forestry, agricultural produce, hunting and fishing grounds

(Wisner, et al., 2004, p. 96)

By considering these different forms of capital we can appreciate how they can be gained or lost by an individual, household or community. Similarly, we can appreciate how individuals, households and communities can exchange capital to secure the resources for survival, welfare and well-being. We can also appreciate how these different forms of capital can be combined to create livelihoods for individuals, households, and communities. So, we can see how a tailor working on the street will make use of daylight (natural capital) so that they can use their skills and knowledge (human capital) and their sewing machine to turn cloth into clothes (physical capital) that can be sold for cash or exchanged for credit (financial capital) to a client base the tailor has built up from their reputation as a trustworthy maker of quality garments (social capital).

In a very dramatic way, disasters remove capital. Human capital can be lost through direct injury, illness and death caused by catastrophic natural and human made events. The loss of human capital can be experienced by the individual disaster victim who may be injured or disabled or made sick. Human capital may also be lost to households and communities as large numbers of individuals are killed, injured, disabled or made sick in a large-scale event. The physical capital of communities can be lost as infrastructure and the built environment is destroyed by earthquakes, tsunamis, floods, and landslides etc. Physical capital at an individual and household level can be lost as homes, business premises and stock inventories are destroyed, and tools and hardware lost. The financial capital represented by cash savings that might be held in homes and businesses may be lost through flood and fire, or made inaccessible through building collapse or forced evacuations etc. A similar fate may fall on jewellery and other precious objects that have the potential to be exchanged for cash or for other

goods and services. Natural events may destroy the natural capital of crops and livestock, and render agricultural land unusable through flooding, sea water inundation or drought. Industrial events can lead to contamination of land, air, rivers, lakes, and seas, all degrading these forms of natural capital. Following disasters, we may see a dispersal of populations who may be locally displaced through homelessness or are in flight or being evacuated from a disaster. Such social upheavals disrupt the social capital that trade and service businesses rely on. Such disruption also threatens to remove elements of social protection that children, the elderly, the frail and the infirm may rely on.

Taking some recent examples we can see how the eruption of the volcano Anak Krakatoa and subsequent tsunami in Indonesia in December 2018 led to direct deaths and injuries, but also to the loss of homes, destruction of business, loss of hospitals and disruption of health services, loss of schools and mosques, and damage to utilities such as power generation and distribution and telecoms etc. (Ye, et al., 2020). Similarly, flooding in Sindh Province in Pakistan in August 2020 killed hundreds, injured many more and caused extensive damage to both the built and manged natural environment, namely agricultural land (ReliefWeb, 2020). Using the lens of different forms of capital allows us to understand what is lost in disasters. As capital is lost so too are the requirements for human survival and well-being, thus leading to unmet human needs (Birnbaum, et al., 2015). In disasters, the loss of capital is so extensive that widespread human needs are generated. At the same time, the loss of different forms of capital may limit the ability to mount an effective local response to the rising tide of human need. In this way, the widespread loss of capital results in widespread unmet human need. It is not controversial to claim that the existence of unmet human needs is a necessary condition for identifying a situation as a disaster. Or, worded in the negative, we can claim that even if an event causes much damage and resultant losses, as long as the fulfilment of human needs is not compromised, then there is no disaster. When considering formal definitions of disaster, they can be seen to emphasise damages and loss of things that are useful. In this way, disasters can be seen to be events through which there is a large-scale *loss of utility.*

The preceding account of disasters as episodes of widespread loss of capital and utility can be seen to provide insights into what is lost during catastrophic events such as earthquakes, floods, typhoons and hurricanes etc. In these events, the physical destruction wrought and the lives lost can clearly be conceived of as a loss of one or more forms of capital. What might be less clear is the connection between disasters conceived of as episodes of loss of capital and large-scale disease outbreaks. In such an outbreak there is a clear loss of human capital through death and illness. Yet, at first look, there may be minimal loss of other forms of capital, a more considered analysis can reveal how a diverse range of forms of capital can be lost in large-scale disease outbreaks. Further, health protection measures implemented to curb the spread of diseases can in their turn compromise a range of capital.

During disease outbreaks, financial capital can be lost through worker absenteeism, either though sickness, through mandated isolation or through increased care commitments. Financial capital can also be lost through mandated closure of businesses such as shops and markets, construction and manufacturing enterprises, travel services etc. Financial capital can further be compromised at regional and national levels by increased demands on budgets created by funding-demands subsequent to increased disease surveillance and control measures. Whilst at a household level, financial capital can be lost due to death or illness of main income generators, the closure of places of work, or mandatory stay-at-home orders.

Large scale disease outbreaks clearly remove human capital through the death and sickness of those directly impacted by the disease. However, human capital can also be jeopardised by the diversion of health resources away from established health programmes into outbreak response measures, thus negatively impacting on services such as cancer surveillance and treatment, care of those with chronic illnesses, elective orthopaedic surgery etc (British Medical Association, 2022; Kings Fund, 2022). Further negative impacts on human capital can arise through social and physical isolation, either through mandated isolation of those thought to carry infectious diseases, or isolating those thought to be at particular risk of infection or the negative consequences of contracting a particular disease, or through self-imposed isolation to limit one's exposure to a particular disease. Whilst such isolation may contribute to reducing mortality rates and physical morbidity, such isolation may have significant negative consequences for the mental well-being of those isolated, thus having a further negative impacting on human capital (Hwang, et al., 2020; Pietrabissa & Simpson, 2020). Such mandated or self-imposed isolation can also be seen to curtail social capital though limiting household mixing and engagement in socially significant events such as weddings, funerals, shared entertainment experiences, participating in sports, and celebrations of success such as award ceremonies and educational graduations.

When considering disaster related loss of capital, one might think that physical capital is relatively immune to loss during disease outbreaks. However, there are several historical accounts of slum clearances and burning of household goods, dwellings, and markets in response to disease outbreaks (McTernan, 2014; Shaw, 2015). Such infection control practices clearly remove physical capital from individuals, households and communities. In addition to such losses of physical capital, soils, water sources and the atmosphere can all be negatively affected by activities such as mass burials or cremation of diseases victims, burning or storage of contaminated clinical waste, contamination of soils and water courses by poorly managed disinfectant usage, and direct contamination of soils and water courses by microorganisms, particularly those transmitted through the faecal-oral route of transmission (Bhunia, et al., 2009; Kumar, et al., 2021; Lapworth, et al., 2015). These points illustrate how disease outbreaks can have negative impacts on physical capital.

With these points in mind it is clear that large-scale disease outbreaks can directly compromise diverse forms of capital, or indirectly as a result of health protection measures initiated in response to such outbreaks. The compromise or loss of different forms of capital carries the potential to create negative impacts experienced as unmet needs. Such negative impacts and needs can threaten the welfare and well-being of individuals, households, or local communities. Further, very large-scale disease outbreaks, such as epidemics and pandemics, can create threats to welfare and well-being that are experienced at a national, or even supra-national level.

Whilst we may accept that the widespread and large-scale loss of capital may result in unmet needs experienced at differing levels of society from individual to whole nation and beyond, some may question whether all needs count equally in a disaster as some may seem trivial, such as missing a social game of five-a-side football, whilst others seem to be more pressing, for example no access to safe drinking water. When considering the range of potential unmet needs that can arise, not only in large-scale disease outbreaks, but in any event labelled a disaster, a legitimate question to be asked is *"which needs count in a disaster?"*.

Which needs count in a disaster?

If we settle on a conception of disasters as events that create unmet needs, then we encounter a problem when we consider the fact that events happen to all of us every day that lead to unmet needs. Some of these unmet needs may seem trivial to the outsider looking in, for example I may feel I need a faster internet connection. By contrast, other needs seem more pressing, for example I may need my central heating fixed so I do not succumb to hypothermia in an unheated house in the middle of the winter. However, if we step back and consider not only our own lives but also the lives of those around us, it looks as though we are surrounded by expressions of need. We do not have to spend much time in social company to hear conversations about *"I need to lose weight"* or opinions expressed that someone's *"Father needs to take it easy after his heart attack",* or expressions of psychosocial needs such as *"I need validation from my co-workers"*. Such expressions remind us that judgements about personal needs are a combination of not only cognitive processes, but have an affective component too, further, the social context within which we live creates needs as we compare ourselves and our lives with the lives of others (Taylor, 2011). These aspects make needs a very personal and subjective affair.

In contrast to the subjective experience of felt needs, others suggest that essential human needs can be identified objectively. This objective identification of needs reflects those elements that are needed for humans to survive and thrive as members of the species *homo sapiens* (Hartley, 2010). With so many divergent accounts of needs there is a danger that the concept of unmet needs can become relatively uninformative for those interested in distinguishing disasters from other daily

hardships that also lead to unmet need. To ensure the concept of disasters as events that create losses that in their turn result in unmet need can actually do the work of identifying disasters, we may want to clarify what types of unmet needs should count when used to identify an event as a disaster.

Important work has been done on human needs, for example the work of Doyal and Gough that sets out two basic needs as physical health and autonomy as the universal preconditions that enable participation in any way of living (Brock & Miller, 2019). However, from this point forward an alternative path will be taken. Drawing on the work of Joel Feinberg (1984), the emphasis will be on interests rather than needs, where interests are taken to encompass not only the specific object of need (food, shelter etc.) but also the means to fulfil that need (Garrett, 2004). As an illustration, a disaster victim may have an acute and pressing need for water. However, whilst the need for water can be clearly delineated (2.5-3 litres per person per day (Sphere Project, 2018)), the person in need of water also has an interest in the source of that water, its quality and sustainability. They will also have an interest in the transportation infrastructure and logistics operations that will bring water within reach. The disaster victim in need of water will also have an interest in how water is distributed so as to make it not only available but also accessible. In a similar vein, the disaster victim in need of shelter may have a need for a physically secure space to live, sleep and store their personal possessions. Beyond this need, they will also have an interest in the rule of law, the effectiveness of policing services, and an interest in more abstract concepts such as 'neighbourliness' or 'community spirit' as protections from theft and physical violence. These two illustrations demonstrate the more expansive and inclusive nature of interests over and above a singular focus on the object of need. A further point to note here is that Feinberg's views on interests also connect to the nature of harm and harming. These two issues are significant issue for healthcare professionals who are committed to the professional obligation of not harming yet find themselves in the midst of a disaster where the possibility of harming seems ever present. The important issues of harm and harming in disasters is given a more full treatment below in Chapter 4: Harm in disaster healthcare.

Feinberg identifies two broad sets of interests a person can have, welfare interests and well-being interests (Feinberg, 1984). Feinberg describes welfare interests in the following terms:

> *"Our interests in welfare ... is an interest in achieving and maintaining that minimum level of physical and mental health, material resources, economic assets, and political liberty that is necessary if we are to have any chance at all of achieving our higher good or well-being ..."*

(Feinberg, 1984, p. 57)

Feinberg presents welfare interests as non-ultimate achievements, that is to say welfare interests are not pursued as an end in and of themselves, but rather because their satisfaction is a necessary condition for the realisation of more ulterior interests that are expressions of our own personal hopes,

aspirations, and desires. These more ultimate and aspirational ends that we aim to realise in our lives constitute our well-being interests. Well-being interests have the possibility to be life organising where a person's whole life is structured to work towards the realisation of a restricted number of hoped for ends. However, in situations where access to the bare minima needed for survival is fraught, then securing welfare interests becomes paramount over and above pursuing and realising more aspirational and ultimate goals and projects. In such situations, personal energy and resources are expended to secure welfare interests, as is the case in disaster contexts.

Feinberg makes two observations about welfare interests. Firstly, although welfare interests reflect an indispensable necessary condition for the realisation of more ultimate and self-directed aspirations, projects and desires, in and of themselves welfare interests are not sufficient for human well-being; there is more to human well-being than minimal survival alone. Secondly, Feinberg contends that even though they may be linked, welfare interests cannot be traded between each other. A failure or stalling of a welfare interest cannot be compensated for by an abundance or excellence in another. That is to say, having excellent cardiovascular health does not make up for economic destitution, just as having access to ample drinking water is no compensation for an empty food cupboard. Thus, the compromise of one or more welfare interest has the potential to be devastating as such compromise risks a person's well-being and their very survival.

Earlier it was proposed that disasters create damages and losses that lead to unmet need. We can now go further and add some definition to the kinds of problems that disasters create. Disasters compromise the fulfilment of welfare interests on a large scale. When we look at disasters, we see events that cause damages and losses that strip out different forms of capital. This loss of capital jeopardises the fulfilment of the essential welfare interests of individuals, households, and communities. So, when we return to the question *"What needs count in a disaster?"*, we can propose an answer; the needs that count in a disaster are those that arise when welfare interests are not met.

This conclusion is not only descriptive in terms of what a disaster is, but also prescriptive. That is to say, disaster response should be organised so as to protect and ensure the fulfilment of welfare interests in order to secure the basic needs of those affected by a disaster. By adopting a concern for welfare interests a rationale is given for the provision of certain types of aid in disaster contexts. Due to the pressing and life endangering character of unmet welfare interests, much of emergency disaster response aid is directed at fulfilling the welfare interests of disaster victims. This welfare directed aid is realised through the provision of water, sanitation and hygiene systems, access to food, provision of shelter and delivery of health services. And indeed, these four areas of activity, water, food, shelter and health, form the core of international standards for disaster assistance as developed and laid out in the Sphere Standards, and reflected in the main areas of humanitarian

response identified by the United Nations Office for the Coordination of Humanitarian Affairs (Sphere Project, 2018; United Nations Office for the Coordiantion of Humanitarian Affairs, 2020).

At this point, we can return to the question *what is a disaster?* and propose an initial description of a disaster; *disasters are events that cause damage and losses that remove capital from peoples' lives and livelihoods, these losses and damages jeopardise peoples' ability to pursue and fulfil their welfare interests.* This description seems to be reasonable and not too controversial upon first reading. However, there is one area of weakness, what about those losses that are still labelled a disaster, but do not jeopardise welfare interests nor lead to unmet human need?

Refining the idea of disaster as loss and the appreciation of "loss as loss"

With the identification of unmet human needs as a necessary condition for any disaster, we seem to have gone some way towards an initial idea about what constitutes a disaster. However, legitimate criticisms can be raised to this initial conceptualisation. This conceptualisation seems to exclude all non-human-impacting events from our inventory of disasters. For some events, the damages and losses incurred seem to be unlinked to any unmet human need. Lines of reasoning that locate the disastrousness of events solely in the creation of unmet needs connects the value of objects, places, and people solely on their usefulness to humans in securing their welfare interests. In this conception, all disasters losses are only losses in so far as they remove opportunities for the fulfilment of welfare interests from the present and from the future. However, this line of argument fails to explain why the loss of objects, structures, even landscapes of no usefulness are presented as a disaster.

Here it might be worthwhile considering a report of the mass death of elephants in Botswana in 2020. Newspapers covered the unexplained and unprecedented mass die-off of over 300 individual elephants, with the event being described as a *"conservation disaster"* by Dr Niall McCann, Director of Conservation at National Park Rescue, as reported in The Guardian (Weston, 2020). Following the line of reasoning that events find their disastrousness in their impacts on people, we might struggle to understand why the loss of over 300 elephants counts as a disaster. Maybe it is a disaster because of its impact on tourism, or maybe the loss of biodiversity may lead to the loss of an as yet undiscovered treatment for human diseases. In this way, the loss of the Botswana elephants can be seen to be a disaster in so far as it leads to a loss of a useful resource, a loss of utility as it were. However, others may counter *"No, it is plain wrong that so many members of an already endangered and under threat species should die".* This second view turns not on the usefulness of the Botswanan elephants to humans rather turns on the recognition of the intrinsic value of these elephants and a recognition that their death is the loss of something of value. A similar line of reasoning can also be applied to other objects, buildings, monuments, and artistic creations that are held to have an intrinsic value, coupled

with a belief that such objects of value ought not be wantonly destroyed. We can go further and speculate that losses of things of intrinsic value that are described as disasters are also irretrievable losses. In each of the cases above, once the loss has occurred then it cannot be reengineered, rebuilt, or recreated except as a facsimile of the original. Perhaps this is what makes these losses disasters, the idea that once they are gone, they are gone for ever.

For those whose main concern is responding to the unmet human need that arises in disaster contexts, the idea that the irretrievable loss of objects held to be inherently valuable may constitute a disaster may be of little interest, a topic for anthropologists and conservationists perhaps. However, the idea of disasters as irretrievable loss does serve an important purpose for those whose main concern is to respond to disasters. This purpose centres on the question as to why mass fatalities are a disaster. This may seem an odd question, most people would claim with confidence that mass death is a disaster. However, if the proposed working understanding of disasters (i.e., *damages leading to losses that result in unmet needs*) is extended to people, then there is a problem.

If we agree that disasters are events that cause damages and losses that remove the capital needed for the realisation of welfare interests, then we have a problem understanding the significance of all disaster related deaths. Firstly, it is not controversial to claim that once I am dead my needs and hence by interests also end. Thus, when we hold the view that disasters cause damages and losses that lead to unmet need, then dead are counted out of this equation as they have no unmet needs to fulfil. Now consider the opening line of the IFRC definition of disaster: *"Disasters are serious disruptions to the functioning of a community"* (IFRC 2020). If applied to the deaths of people in a disaster, it seems as though only those deaths that lead to a disruption of the functioning of a community count. That is to say there is an emphasis on the death of a person as a loss of human capital, a loss that may in turn jeopardise another person's welfare interests. Continuing to apply the IFRC definition and the focus on losses that disrupt to community functioning, one can appreciate how the death of someone with care responsibilities such as a parent, or the death of those who perform socially useful roles such as sanitation engineers or midwives count in disasters. However, it is much more difficult to see how the death of the frail and infirm, the non-productive, the dependent, and the indolent would count under this view of disaster. It can be claimed that their death does not disrupt the functioning of the community or compromise the pursuit and realisation of other people's welfare interests. Consider a pandemic of a virulent and deadly infectious disease that preferentially kills the frail, dependent and elderly. If, we hold fast to the view that only losses that disrupt the functioning of communities count, or that only losses that lead to unmet welfare interests of others (those basic interests tied to biological survival) count when defining which situations count as disasters, then we may struggle to explain why the mass death of frail and dependent eighty- or ninety-year-olds during a pandemic is a disaster. Yet we still feel that mass death is a disaster, irrespective of the usefulness of or otherwise of those

who die. Only an account of disasters that includes the irretrievable loss of things of inherent value, including people, allows space to equally value all disaster deaths, irrespective of the usefulness and utility of the individual lives lost. If this argument is accepted, it makes a case that those who respond to disasters not only have to consider those disaster related losses that jeopardise welfare interests, but also have to consider other losses that are experienced just as loss including the loss of each person.

Irretrievable loss in disasters

Whilst we can use the idea of irretrievable loss to expand our understand of why certain losses can be identified as a disaster, it can be claimed that in a very deep way, all disasters can be seen to carry in themselves an element of irretrievable loss. Disasters can lead to the almost total eradication of everything that was familiar, predictable, intelligible, and valued in life. For many who survive a disaster, there was a life before the disaster and there is now a life after the disaster that is qualitatively different. For some people, their life before the disaster is somehow lost and cannot be recovered, giving rise to a sense that the disaster presents a radical break in their life history or life narrative. Some survivors talking about disasters talk about their lives having stopped on that day, others say life will never be the same again, whilst others talk of the struggle to create a new way of carrying on living (Davies, 2001; Mort, et al., 2005).

Disasters can also challenge people's ideas of what is predictable and reliable, how the world works, personal logics of cause and effect and even ideas of what is deserved and what is just. In this way, disasters can be seen to threaten not only personal and community existence in a physical sense, but also in terms of ontological survival and continuity by unpicking the meaning and purpose we give to life (Groake, 2011). Disasters seem to be a point of dislocation and disjunction in how people, communities and even whole countries see themselves, live their lives and make sense of how the world works. As Thompson observes, in disasters *"the foundations of our being are profoundly shaken"* (Thompson, 1995, p. 502).

Karl Weick took a great interested in collapses of understanding and situational comprehension that occur in disasters and crises (Weick, 1993). Weick took up the concept of cosmologies for understanding how meaning is lost in disasters. Cosmologies are those personal large-scale perspectives that unify time and space, cause and effect, contingency and change, fate, luck, chance and just desert. Additionally, Weick sees these cosmologies as features of everyday life, we all have them and work through them as we live our everyday lives. In a way cosmologies are the taken for granted scaffold that allows us to make sense of what has happened, what is happening, and what will happen. However, disasters present as a significant challenge to our taken-for-granted cosmologies. Weick uses the term cosmology episode to identify these challenges that can render our understanding of what is, has and will happen void:

"A cosmology episode occurs when people suddenly and deeply feel that the universe is no longer a rational, orderly system. What makes such an episode so shattering is that both the sense of what is occurring and the means to rebuild that sense collapse together."

(Weick, 1993, p. 633)

Whilst these ideas might appear a little esoteric, perhaps better left to the chaplain or psychotherapist, they do have real world implications for those responding to disasters. Here are the words of a disaster survivor from Iran:

"...they took assistance, but our problems were not resolvable with these assistances. We lost everything, what we built in years. This assistance was like a dress on the deep wound that covers the surface of the wound, but it doesn't help repair."

(Nakhaei, et al., 2016, p. 4)

In this quote, the deep wounds can be seen as the deep wounds that a disaster inflicts on the comprehension, understanding and meaning of lives lived, lives lost and lives that will continue. One could go so far to claim that disasters sit on the threshold of two ways of living, a way of living and being before the disaster and a way of living and being after the disaster. Further, the pre-disaster way of living and being is irrevocably lost. Maybe it is this loss that is most disastrous for those who survive a disaster.

It is not only the victims of a disaster that experience a cosmology episode in a disaster context. Those who seek to help may also be faced with challenges to the understanding of what is happening, what has meaning and value, and why. The otherworldliness of disasters is a common feature of the experience of healthcare professionals who find themselves in a disaster context. For those working in a disaster context, the otherworldliness of disasters challenges accepted ways of acting and being. This issue of the different and otherworldly nature of working inside a disaster is returned to below. The radical disruption of ways of living, life histories, and meaningful understanding of the world as a rational and orderly points to another feature of disasters that is not fully captured in the formal definitions of disasters produced by authoritative bodies and response agencies. The feature underplayed is the exceptionality of disasters.

Disasters and exceptionality

Disasters have a unique ability to disrupt people's deeply held sense of order, causality, and meaning. As such, disasters can act as a point of disjuncture that separates life before and after a disaster, an ontological break as it were. This radical disruptive nature of disasters appears to be missing in those definitions of disaster that emphasize the loss of objects, people and places of instrumental utility and the subsequent unmet human need. If we look at events that are identified as

disasters – earthquakes, volcanic eruptions, drought, building collapse, ferry sinkings and the like – we can claim that they are not normal. Indeed, such events are often described as unthinkable or unbelievable, unparalleled, unprecedented, and presented as events that are difficult to apprehend and comprehend. Such features are used to create a narrative of exceptionality and deviation from accepted norms (Goncalves, 2016). Such a view of exceptionality may draw heavily on history and prediction to establish what is normal and what is exceptional in statistical terms. In this way disasters are seen as exceptional events that are spatial-temporal anomalies (Adey, et al., 2015).

Whilst many may argue that identifying a situation as exceptional is a mere matter of empirical evidence regarding statistical normality, others remind us that applying the term 'exceptional' to a situation may also be evaluative. Thus, disasters are not only quantitatively different, but also qualitatively different from normal times. For disasters, labelling a situation as 'exceptional' gives license to suspending normal ways of acting and reacting, whether this be at the individual or household level, or even at the national level with the imposition of states of emergency and the suspension of normal-times forms of governance (Collier & Lakoff, 2015; Fassin, 2012). As such, disasters may lead to declarations of states of emergency, the release of certain financial resources, the suspension of certain personal liberties and rights, or even the imposition of martial law. For some organisations, the recognising exceptionality and signalling that through actions such as a declaration of a state of emergency is a signature of a disaster having occurred, for example the Centre for Research on the Epidemiology of Disasters (CRED) takes the declaration of a state of emergency as sufficient to include an event into its Emergency Events Database (CRED, 2022). Other organisations see declarations of states of emergency, release of financial and material response resources etc., as responses to events that threaten to overwhelm local response capacities, or events that are judged to present an existential threat to communities and systems (Greene, 2020). That is to say, exceptionality may be used to both identify a disaster and to frame the response to disasters. In this way, describing an event as an exception is not only a value-neutral statistical description anchored in empirical evidence, but also an ascription of a value anchored in ideas of threat, risk and disruption. As such, exceptionality can be seen as a concept that can be used to define an event as a disaster, but also be used to justify significant alterations to political and socioeconomic life.

Part of the non-normality of catastrophic events identified as disasters is statistical in nature. We do not expect the ground to shake, or volcanos to erupt and cover towns and crops with metres of ash, we do not expect rains to fail and crop yield to collapse, we do not expect ferries to set sail and sink. In a similar vein cyclones and hurricanes build storm surges that exceed normal high-water marks by several metres, tornadoes produce wind speeds over ten times greater than those in a gale, a month's worth of rain can fall in a matter of hours leading to flash flooding, whilst disease outbreaks may inundate hospitals and clinics with unprecedented numbers of sick casualties. The statistical non-

normality of disasters also helps explain why events such as earthquakes or high temperatures are identified as disasters in some contexts but not in others. For example, countries along the Pacific rim may experience numerous earthquakes monthly or even daily, thus earthquakes here are not exceptional events, whereas an earthquake in the United Kingdom of a magnitude similar to those experienced in Japan or California would be an exception. So too with high temperatures, the transposition of the statistically normal temperature and climatic profile from a country such as Tunisia to the United Kingdom would be identified as a heatwave and lead to multiple deaths, disruption of infrastructure such a road and rail transport, and electricity and water supplies. In this way we can appreciate the statistical exceptionality of disasters that make them non-normal. However, disasters can also be seen to be exceptional in so far as they should not happen.

The other aspect of the non-normality of disasters is a sense that such events should not happen. The notion of *should not happen* can be seen to capture two ideas. Firstly, there is the idea that some events are unexpected, where *should not* happen captures our astonishment that the unexpected has actually occurred. Secondly, the phrase *should not* happen also captures those events that ought not to occur, events that are somehow seen to be unfair. When ferries are built, commissioned, and sailed, they are done so in the belief that they will not sink, that they will safely carry passengers and crew from A to B. The sinking of a ferry is an abnormality not only because it is statistically rare but also because it defies the normal way ferries and shipping ought to work. When faced with an event such as a ferry sinking, questions are asked as to why this happened, and incredulity expressed as to the mere fact that the sinking occurred. The abnormality of disasters is captured by the experience of the inhabitants of New Orleans before, during and after Hurricane Katrina that impacted that city in August 2005. New Orleans residents were accustomed to hurricanes, they held parties, took their pets to work and generally hunkered down, confident that flood defences, levees, storm shutters and the complex of flood defences surrounding the city would hold back the coming storm (Fink, 2013; Griggs, 2019). In a way, Hurricane Katrina was not a statistical exception, hurricanes were, and continue to be, common features of life in and around New Orleans. What was exceptional in 2005 was the collapse of flood defences in and around New Orleans leaving large sections of the city under water. Not only was the failure of flood defences exceptional, it was also inconceivable because it ought not to have happened. Indeed, officials in New Orleans had difficulty communicating the situation to Federal officers in Washington D.C. due to the inconceivability of what had happened, Federal agents simply could not comprehend the complete collapse of flood defences (Rhee, 2006).

The experiences in New Orleans in 2005 are not unique. Repeatedly we see catastrophic events resulting in destruction on a scale that is inconceivable and beyond comprehension events such as the Boxing Day Tsunami of 2004 and the near eradication of Banda Aceh city, the Haiti earthquake

of 2010 and the levelling of a national capital, the 2011 Tohoku earthquake and tsunami that crippled the Fukushima Daiichi nuclear power plant despite multiple earthquake and tsunami protections. The firm belief that such events cannot and ought not to happen makes them inconceivable. The belief in the impossibility of some events means that when they do happen there is still disbelief that they have happened. Such disbelief is carried by those within the disaster context and also held by those outside of the disaster context, but observing at a distance. For healthcare professionals and others who seek to help in disaster contexts, the level of destruction seen, the magnitude of unmet human need, and depth of suffering challenge their ability to comprehend what has happened, what is happening around them, and what will happen in the future. In this way, healthcare professionals who work in disaster contexts find themselves in an altered world where familiar landmarks, values, and beliefs may be lost, upended or left redundant.

Not only do people say such catastrophic events should not happen in the sense of *cannot happen*, but also in the sense that certain events *ought* not to happen. That is to say, the occurrence of inconceivable catastrophic events presents an affront to our understanding of how the world is and should be, an affront to our sense of normality. Such an affront is a further expression of the breakdown in cosmological understanding that has been highlighted by Weick (1993). This sense of affront and a belief that catastrophic events should not happen is reflected in how disasters are evaluated. All disasters can be seen to be evaluated negatively both on the grounds of the losses and damages and unmet needs they create, but also because they ought not to happen, disasters fly in the face of how the world should work.

Not only are the exceptions of disasters evaluated negatively, it can be claimed that, for disaster, there are no redeeming features. This can seem quite a bold claim, after all in post-disaster contexts there have been improvements in housing, in adopting sustainable ways of living, in community spirit, volunteerism and political reform. Despite these positive outcomes, no one would wish for a disaster to happen in order to achieve these outcomes. In other words, no one would be disappointed if such positive developments were achieved without a disaster. Whilst benefits *may* follow a disaster, such benefits do not negate the intrinsic badness of disasters. All disasters are intrinsically bad. To support this claim the reasoning of Thomas Nagel can employed as he arguing for the intrinsic and objective badness of pain and suffering:

> *"In arguing for this claim, I am somewhat handicapped by the fact that I find it self-evident ... That pleasure is impersonally good and pain impersonally bad are propositions that one really needs reasons to doubt rather than reasons to believe"*

> (Nagel, 1986, pp. 159-162)

This quote can be re-presented thus:

"In arguing for this claim, I am somewhat handicapped by the fact that I find it self-evident that disasters are impersonally bad and one really needs reasons to doubt rather than reasons to believe this proposition"

For those who find themselves in a disaster this raises questions as to how to act and respond in circumstances that are intrinsically and impersonally bad, even, on occasions, tragic. The question of whether it is possible to act well in disasters that are impersonally bad is a question returned to in chapter six when considering the healthcare professional in disasters as a virtuous agent.

Not only are disasters statistical flukes, they are also abnormalities that ought not to happen. This appreciation of the fundamental abnormality of disasters is largely missing from formal definitions of disasters produced by authoritative bodies and response agencies. Yet this appreciation of the abnormality of disasters may serve a further purpose. In the opening introduction to this chapter a series of personal disasters were presented that can be seen to be trivial in the face of the mass destruction, death, and suffering that accompanies large disasters. However, if we contend that disasters are events that ought not to happen, then we can see how weddings, barbeques, and cosmetic surgery can be disasters; wedding days ought not end in tears and arguments, family barbeques ought not to result in people being poisoned, cosmetic surgery should make you look beautiful and ought not leave you disfigured. Developing this further, we can speculate that one feature that unites disasters of whatever scale is the feeling that in some way their occurrence is just not right; disasters are an afront to how we think the world should work as an orderly, rational, meaningful, and comprehensible place to live.

Conclusion

This chapter has taken as its focus the central question as to what is a disaster? The first observation made is that disaster exist on a wide range of scales. Wedding days mishaps and cosmetic surgery blunders are called disasters just as readily as are cyclones, famines, and earthquakes. For those engaged in responding to disasters there is a risk that the personal tragedies that people identify as disasters are discounted as trivial or illegitimate use of a term that is more rightly applied to large scale catastrophic events. And indeed, this is the approach taken by authoritative bodies and response agencies in their formal definitions of disasters. Such definitions emphasise the large-scale destruction and losses that lead to large-scale unmet human need as the defining features of disasters. In terms of what is lost, the idea of different forms of capital can be seen as one way of describing and explain what is lost in a disaster. As capital is lost, lives are at risk and livelihoods stymied, in turn jeopardising the welfare interests of disaster victims.

One criticism of formal definitions of disasters is the emphasis of the loss of utility. Formal definitions privilege those losses that lead to unmet need. Such a position struggles to accommodate

losses that are felt as losses but do not lead to unmet need. Such a privileging of loss of utility struggles to accommodate the awfulness of mass death as not all deaths lead to unmet need. We seem to think that mass death is a bad thing in and of itself, not because of any loss of utility that such deaths represent. This leads to appreciation that some losses are experienced just as losses. Further, in disasters it can be proposed that when things of intrinsic value, including people, are lost this loss is irretrievable.

Disasters not only lead to loss of objects of value, but also to the loss of ways of living and being. Disasters are liminal events that stand on the threshold of two ways of being, a life before the disaster and a life after the disaster. Disasters can also challenge people's understanding of how the world, the universe, fate, and fortune work. Disasters challenge our ability to comprehend and conceive of what has happened and what the future will look like.

Disasters are also non-normal. Disasters are statistical outliers, exceptions to the norm. Disasters are also exceptions to how we think the world should be, our sense of order, rationality, causality, meaning, fate, fortune, and justice. As such, disasters are an affront to our beliefs about the normal and what is right. Disasters are also bad, very bad, intrinsically, and irredeemably bad. Disaster ought not to happen. The intrinsic badness of disasters and the belief that they ought not to happen, helps to unite the large-scale catastrophic event with the personally tragic.

For those who seek to help in disasters, these views of what a disaster is carry significance. Firstly, in a disaster context one is confronted by large-scale and widespread damages and losses that in turn create widespread unmet need that puts the survival and welfare of disaster victims at risk. The losses that arise in disasters not only compromise the realisation of welfare interests, but they can also compromise the ability to provide aid. Secondly, disaster contexts are otherworldly, they are disorientating and lack familiar landmarks to navigate by. Those seeking to help run the risk of not knowing how to respond to the exceptional and abnormal situations that characterise disaster contexts. Further, the exceptional circumstances found in disasters are novel, leaving those who respond struggling to establish what is the right thing to do in such unprecedented situations. For those responding to disasters there is a real risk that normal ways of behaving and acting will lack relevance in situations where nothing is normal. And finally, disasters are intrinsically bad. For those who seek to help in disasters this raises the question of how to act well in a bad situation. These different aspects of disasters combine to create one of the most challenging contexts within which to deliver healthcare. The next chapter considers in detail the challenges experienced by healthcare professionals who work in disaster contexts.

Chapter 2: What are the problems healthcare professionals experience in disasters?

Introduction

The purpose of the previous chapter was to describe some of the key the characteristics of events that are identified as disasters. To this end disasters can be seen as exceptional events that result in the widespread removal of different forms of capital from communities, the loss of which jeopardises disaster victims' pursuit and realisation of their welfare interests; a situation described as a loss of utility. By contrast, some disasters result in widespread losses that do not impair the pursuit and realisation of welfare interests but are experienced as the irretrievable loss of things held to be intrinsically value; a situation described as loss as loss. The exceptionality of disasters has been presented as both an exceptionality to the statistical norm and also as an exception to beliefs about how the world ought to be. Both of these forms of exceptionality challenge believability & comprehension through their novelty and upending of accepted beliefs and expectations.

For those who seek to provide health care within a disaster context, the features outlined above provide a series of significant challenges. Healthcare professionals in disasters are faced with overwhelming need that is pressing and threatens the survival and welfare of a large number of people. Alongside this increase in need there may be a compromised ability to respond as human and physical capital is damaged or lost. Further, the increased need and compromised ability to respond occurs in an exceptional environment that challenges comprehension and can appear otherworldly. The otherworldliness of disasters threatens to render established values and beliefs and past ways of acting irrelevant. Evidence of these felt challenges will be drawn from field reports, autobiographical writings and research studies that focus on healthcare professionals (nurses, physicians, surgeons, midwives, public health officials) who are working in a disaster situation. For healthcare professionals who respond to disasters, these challenges and threats raise questions as to who to help and how, and what to do for the best; questions that carry ethical import.

Choice and opportunity

It might be a case of stating the obvious, but in normal-times, everyday practice healthcare professionals are faced with choices. However, in disasters healthcare professionals may be faced with different choices to those they face in their normal times, everyday practice. These choices may be novel and leave the healthcare professional unsure as to what to choose to do and the grounds upon which choices ought to be made in the exceptional circumstances that occur in disasters. They may feel they are faced with a set of obligations whose demands compete with each other, or they may be

unsure as to what they can do, must do, or must not do. As an illustration we can construct an imaginary scenario around two trauma surgeons: Patricia and Nadine.

Consider these two trauma surgeons, Patricia in Paris and Nadine in New York. They are both in their respective offices on the morning of September 11th in 2001, both watching the collapse of the Twin Towers of the World Trade Centre. Patricia is horrified at what she sees, but being powerless to directly intervene she is not faced by the moral dilemma of what her response should be as an experienced clinician. Contrast Patricia's position to that of Nadine in New York watching the disaster unfold around her. Let us suppose that Nadine is about to leave her office and make her way home after a busy night shift at a downtown Manhattan hospital. Fully aware of the events around her, Nadine has multiple options open to her; flee for her life, rush in to treat the victims, stand back a few blocks and wait for patients to come to her, or recognise she is tired and probably not fit for duty and rest up at home because tonight is going to be a busy night by the look of things, or maybe she should head home to her husband because she knows her husband's father was working in one of the Twin Towers today? However, it is more than a simple case of multiple choice, or picking any one of the choices present to Nadine. Each option before Nadine differently emphasises, or de-emphasises, Nadine's commitment to her professional duties as a trauma surgeon, or her duties to herself and self-preservation, or her desire to be with those she loves. Each choice also differs in its demandingness with each option carrying a different cost to be borne either by Nadine or by others. Nadine will also appreciate that some of the options in front of her are mutually exclusive; to rush in to help or to stay back, to go home to her husband or to stay on scene. This incompatibility of multiple felt obligations can be seen to lie at the heart of many of the dilemmas that healthcare professionals in disasters experience.

Yet it is not just the presence of multiple obligations that creates dilemmas, many would argue that there must also be an opportunity to fulfil those obligations; that is to say every ought implies a can. It is the opportunity to exercise choice that creates difficult choices for healthcare professionals in disasters. Within a disaster, certain options may become unviable due to the loss of human and material resources (human and physical capital). For example, there may be no ability to deliver haemodialysis to disaster victims in renal failure, as such there is no professional duty to provide this treatment. However, healthcare professionals in disasters may be presented with multiple viable options for action but an inability to do all of them. Thus, for healthcare professionals in disasters, they may recognise a professional duty to do something, but be uncertainty as to which course of action to follow, or in what order to prioritise mutually exclusive actions.

This latter point is an important point to remember, as a recurrent idea expressed by healthcare workers in the midst of a disaster is a constrained ability to help all who need help. In light

of this imposed constraint, some might question whether moral responsibility is possible for healthcare professionals whose choices are so confined that they are unable to respond in a fully effective manner to the needs in front of them. Alternatively, some may argue that healthcare professionals are never free of choice as to how to act in a disaster, as even inaction is a choice to not act, therefore moral responsibility is always present. We can anchor in the real world the proposition that hard choices between incompatible options are a common experience of disaster responders by examining the experiences of healthcare professionals who find themselves in a disaster context.

Moral implications of choice in exceptional circumstance

For all healthcare professionals, decisions about who to treat, in what order of priority, and how much of the finite pot of resources to allocate to each patient are a ubiquitous feature of the health professional's working life. These decisions become even more pressing as the number of calls on finite resources increases and the inventory of available resources dwindles. The situation becomes even more problematic when the decisions of who and how to treat become decisions of life and death. Take as an example the situation faced by medical teams who responded the Haiti earthquake of 2010. This earthquake resulted in over 300,000 deaths and 3.8 million affected individuals, 60% of the nation's administrative and economic infrastructure was lost, and 50% of hospitals were destroyed or damaged (desRoches, et al., 2011). The earthquake triggered an unprecedented international response from a large number of international medical assistance teams who responded to the devastation. One such team was an Israeli Defence Force (IDF) surgical field hospital.

As a unit, the IDF field hospital was well versed in trauma care and had well-established systems for responding to multiple trauma patients based on their experience of conflict in and around Israel (Merin, et al., 2010). However, this team found that their established and well drilled protocols did not serve them well. The IDF field hospital was deployed with a capacity to hospitalise 72 patients, including 4 intensive care beds, and had a single operating table (Kreiss, et al., 2010). In the face of literally thousands of seriously injured earthquake victims with crush injuries, open fractures and untreated soft tissue injuries leading to life-threatening infections it was clear that they would very rapidly reach 100% occupancy. In addition, the team recognised that those most in need, with the highest clinical priority would also consume large quantities of irreplaceable material such as drugs, intravenous fluids and dressings, in the course of their treatment. To complicate matters even further, the field hospital arrived approximately two and a half days after the earthquake and were faced with old injuries that had either been poorly managed or not managed at all (Kreiss, et al., 2010; Merin, et al., 2010). A further layer of complexity arose from the lack of any on-going rehabilitation services for those with limb, spinal or brain injuries. The field hospital medical team recognised that their usual ways of dealing with mass casualties did not fit with the disaster context they found themselves

operating in (Kreiss, et al., 2010). The constraints imposed by the disaster effectively rendered redundant the team's established protocols that were aimed at identifying those most at risk of death and prioritising them for immediate care. Such protocols were premised on the belief that all care can be delivered to all in need, and that the burden of ongoing care and rehabilitation can be met. These established protocols had served them well when there was a guarantee of resupply and an onward chain of casualty evacuation and future rehabilitation. However, the realities of the exceptional situation they found themselves in led the medical team to base their clinical decision making on a sequence of four questions that were different from their normal times approach to patient prioritisation:-

1. How urgent is the patient's condition?
2. Are there adequate resources to meet the patient's needs?
3. Assuming the patient is admitted and treated appropriately, will the patient's life be saved?
4. If their life is saved, what will be their need for rehabilitation?

(from Merin, et al., 2010)

These four questions bore little resemblance to the field hospital's established complex decision-making tools that relied on evaluating casualties on physiological parameters that reflected the casualty's clinical condition only and paid no heed to consideration of the care demands entailed by saving the casualty's life. Indeed, rather than being a system that ensured access to care for those most in need, these newly invoked four questions can be seen as barriers to access. These four questions can be read as ways of denying care by presenting hurdles that the casualty needs to overcome in order to receive care. The team's adoption of this radically different approach to clinical prioritisation shifted focus away from the most seriously injured in favour of those casualties where minimal resource expenditure would lead to a good outcome, not only now but also in the future.

The IDF field hospital staff's experiences in Haiti earthquake reflects a problem that typically faces healthcare professionals delivering care in the midst of a disaster. The clinical decision-making systems that clinicians rely on in normal times can begin to fail in the unique contexts found within disasters. Disaster contexts challenge established norms of practice to such an extent that they can leave the nurse or doctor with few effective guides for action in an environment where many of the previous landmarks to navigate by are missing. For the IDF medical team, the normal landmarks of sufficient resources and resupply, evacuation of casualties out of the field hospital to make space for new casualties and a confidence in the availability of rehabilitation care for survivors were all lost. This presented the IDF healthcare professional with a new and unfamiliar landscape to navigate through, requiring a new orientation and the creation of a new set of landmarks to navigate by. For the IDF field hospital medical team, they used the four questions presented above to serve as their

landmarks in this unfamiliar territory. Using these landmarks, the IDF field hospital medical team made decisions that were different from the decisions they expected to make as to who was admitted and treated in the field hospital. Despite having the ability and capacity to provide some degree of positive treatment and care, certain disaster victims who presented at the field hospital were not admitted. Treatment and care was held back from some seriously sick and injured earthquake victims, something that the medical team thought was the right thing to do:

> *"we believed it would be incorrect to use our limited resources to treat patients with such a minimal chance of ultimate rehabilitation. ... We needed to optimize the utilization of our ICU* [Intensive Care Unit] *beds. ... The practical implication of this prioritization scheme was that hospitalized patients who were deemed to have a small chance of survival were not likely to be treated in the ICU"*

<div align="right">(Merin, et al., 2010, p. 2)</div>

Whilst these changes in decision making may be presented as a positive response aimed at making best use of limited resources, these changes were felt differently by the various healthcare professionals involved. Reading the experiences of the IDF field hospital team reveals a strange mix of doing things for good reasons yet discomfort about these very same decisions. The field hospital medical team were acutely aware of the burden of determining a person's fate and how denying care to certain people in obvious need to enable care and treatment to be given to other disaster victims *"was not a course of action that came readily to physicians accustomed to treating all who seek help"* (Merin, et al., 2010, p. 2). This real-world example opens up questions of balancing benefit and harm between people in need, questions of how far you can go in securing good outcomes, and the question of acting well in less than ideal circumstances. At a deeper level, this real-world example exposes the otherworldliness of disasters. The otherworldliness of Haiti can be seen as an example of a cosmology episode, a concept that was introduced and described above in chapter one. That is to say the situation that the IDF field hospital team found themselves in posed a significant challenge to the team's established sense of order, predictability, rationality and control. In response to this cosmology episode the team had to create a new understanding of who to help now, how to help now, and what the future for those they stood in a position to help could look like.

The experiences of the IDF field hospital are not unique. Gabriela Camacho-McAdoo was a registered nurse who deployed to Haiti five days after the earthquake as part of a medical team from Stanford Hospital, California. In common with the experience of the IDF field hospital team, Camacho-McAdoo found herself in an unfamiliar and alien world (Camacho-McAdoo, 2010). The world was not only physically unfamiliar and alien, but also unfamiliar and alien in terms of different

ways of working that challenged deeply held values and beliefs about what constitutes good nursing. The unfamiliar and otherworldliness of deploying to Haiti is expressed in her own words[4]:

> *"... change was occurring by the second*
> *... unlike any other triage area I had ever seen*
> *... the needs of the injured overwhelmed traditional boundaries of the medical disciplines*
> *... difficult to know where to begin*
> *... quite literally worlds apart from nursing practice in the United States*
> *... injuries beyond belief."*

(Camacho-McAdoo, 2010, pp. 385-386)

The commonality between the experiences of Camacho-McAdoo and the IDF medical team also extends to the realisation that the context of the disaster constrains choice. Camacho-McAdoo reports several downgrades in practice forced on the medical team by the exceptional circumstances they found themselves in, for example writing observations on patient's chests with marker pens and using sticky tape stuck to patients to record medical and nursing notes. One change in practice that stands out as more significant is the withdrawal of the medical team from Stanford Hospital overnight due to a lack of effective security. Camacho-McAdoo refers to this withdrawal as patient abandonment and quite rightly states that such actions would be unthinkable in the United States[5] (Camacho-McAdoo, 2010). However, Haiti conspired to create a context within which the unthinkable not only became thinkable but became practice. If we accept that disasters are events that ought not to happen, we can see in the abandonment of patients overnight a real-world example of an event that ought not to happen. This shift in treatment provision can, as with the IDF field hospital team, be seen as a fundamental challenge to the Stanford Hospital team's taken-for-granted understanding of how the world works, another example of Weick's cosmology episodes (Weick, 1993).

The experience of otherworldliness is not only felt by international disaster response teams that arrive in a disaster from outside. In April and May 2015 two large earthquakes shook the Kathmandu valley in Nepal leaving over nine thousand dead and affecting a further eight million (Guha-Sapir, 2015). At exactly the same time the annual conference of the Society of Internal Medicine of Nepal was in progress in Kathmandu. Attending this conference were two colleagues, Janak Koirala and Sangita Basnet. During the earthquake in April 2015 they recall *"it seemed as if the world was ending ... destruction beyond imagination ... unfathomable destruction"*, they describe how they *"provided healthcare services under the open sky"* and how *"a baby was delivered inside a taxi"* due to lack of a safe clinical environment for the delivery, and, just like Camacho-McAdoo, describe how *"all of this activity* [patient care] *stopped the moment night fell"* (Koira & Basnet,

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[4] Abridged comments taken for convenience from Gabriela Camacho-McAdoo's lengthier personal reflective account

[5] However, Camacho-McAdoo does not make it clear as to whether or not she considers the removal of care due to security issues in the United States as unthinkable full stop, or unthinkable in normal times outside of a disaster context

2019). So, even for these Nepali physicians, accustomed to delivering healthcare in Nepal, the earthquake was other-worldly and beyond comprehension, requiring them to deliver healthcare in a way that would have previously been unconscionable. A further example of a situation that ought not to happen.

There is a common theme of otherworldliness that emerges from the accounts of those who find themselves in a disaster. This otherworldliness can render null the taken-for-granted views of the orderly rationality of the world, and how the world is and will be. This disorientation can be seen to force those who provide healthcare in disasters to create a new understanding of the world, a new cosmology even, that can accommodate the novel and alien aspects of the disaster. This shift is revealed in how established ways of working are radically refashioned in the face of the disaster. Such alterations of practice do not in and of themselves necessarily represent a moral dilemma. However, such alterations may introduce doubt as to their moral defensibility, especially when such alterations run counter to established norms of professional practice. In such situations there is a possibility that healthcare professionals will be faced with choices between incompatible or irreconcilable obligations giving rise to moral dilemmas. Brink (1994), presents a moral dilemma as arising when there is an obligation to do A and to do B, but where it is impossible to do both A and B. Recall the earlier example of the two trauma surgeons witnessing the events of 9/11. If we consider the situation of Nadine on scene in New York as the Twin Towers collapse, we can see that she is faced with multiple moral obligations whose fulfilment are mutually exclusive, for example move towards danger to help, to hold back and look to her own safety, to return home to respond to the needs of family members etc. By contrast, Patricia in Paris, lacks opportunity to act and in this way no moral dilemmas are imposed on Patricia as to what to do, hence Patricia faces no moral dilemmas.

The position of Patricia observing the collapse of the twin Towers from Paris and unable to respond also provides an understanding of the situation of healthcare professionals who find themselves in a disaster context. Returning to the earthquake in Nepal, we can appreciate that for the two physicians in Nepal, the destruction of healthcare facilities removed certain options and in so doing removed associated obligations. Once the hospital or clinic is no more than rubble, there is no option but to carry out treatments under the sky or deliver babies in the back of taxis, or write observations on the patient's chest. However, if we return to the IDF field hospital and Stanford Hospital team we see a different situation.

In the case of the IDF field hospital team and the Stanford medical team, they chose to radically alter the way they worked, albeit for good reasons, despite options to act otherwise. The radical alteration in how care is delivered and to whom can be seen to flow from doubt as to what each of the teams should do in a situation that is difficult to comprehend. More specifically, for the IDF

team their accepted normal-times morally correct course action was to treat the most seriously injured as a priority, however, the situation they faced in Haiti made it, as a minimum, unclear or ambiguous as to whether or not treating those with the most serious injuries as a priority was the correct course of action to follow. Likewise, the Stanford medical team would not consider in normal times the possibility of abandoning patients without care provision, however the perceived threat to security introduces an obligation to look to one's personal safety. With this competing obligation, it becomes less clear as to what is the right course of action to follow; should the team continue care provision and risk assault, robbery, injury or even death, or should prudent self-interest win out over the provision of over-night care? These altered disaster context practices do not necessarily represent a form of moral dilemma, one choice may indeed trump another and therefore be the correct course of action to pursue. However, what we can claim as a minimal ethical difficulty in these situations is uncertainty. That is to say, in disaster contexts it may be unclear as to what is the best thing to do, whether normal times healthcare practice should continue or be replaced by different ways of working. Disasters present multiple and competing opportunities to do good, yet for those in the midst of a disaster there may be ambiguity as to which opportunities to pursue. This ambiguity is made more acute by the realisation that to commit to one course of action will leave other good deeds undone, thus the ambiguity is essentially a moral uncertainty about doing good and occasioning harm (Bykvist, 2017).

Moral dilemmas and moral uncertainty

The situations above are presented as moral dilemmas, however doubts have been raised as to the reality of moral dilemmas, with some claiming moral dilemmas are more apparent than real (Slote, 1985; Statman, 1995). As a response to doubts about the possibility of real dilemmas, Ruth Marcus has produced an argument in defence of the reality of moral dilemmas (Marcus, 1980). Marcus argues that the view that moral dilemmas are merely apparent is a consequence of adopting a single principled moral system. Under such a system, there is a unique correct answer to ethical questions, even though there may be uncertainty about what that answer may be, or uncertainty about how to realise a moral principle in the real world. For Marcus, such uncertainty differs from those real dilemmas that arises at the interface of irreconcilable options that are derived from a plurality of ethical principles.

To illustrate moral uncertainty and dilemmas, we can consider a constructed case involving a population displaced by famine and living in an encampment. Let us suppose you have a choice to deliver therapeutic feeding services for acutely malnourished children, or a measles immunisation programme, but for the sake of argument you cannot deliver both. This appears to be a dilemma, a choice of A or B but not A and B. Now let us suppose you are committed to realising an ethical

principle of minimising morbidity. Under this single principle, the correct course of action to follow is the course of action (therapeutic feeding or measles immunisations) that will realise the greatest reduction in the burden of illness. However, for those in the disaster there may be uncertainty as to which course of action will realise the greatest reduction in the burden of illness. Yet once epidemiological data has been gathered on nutritional status, immunisation status, demographics etc., then a decision can be arrived at as to whether therapeutic feeding or measles immunisations will offer the greatest reduction in the burden of illness. In this way, argues Marcus, the dilemma of whether to feed or immunise is apparent rather than real; *"In apparent dilemmas there is always a correct choice among the conflicting options"* (Marcus, 1980, p. 124). If we accept the arguments of Marcus, then we can appreciate how some of the apparent dilemmas experienced by healthcare professionals can be reconfigured as episodes of moral uncertainty where there is a correct choice, even if it is unclear to those in the disaster either what single ethical principle to realise or how to realise it. By contrast, Marcus claims that true, irreconcilable dilemmas do arise and do so at the interface of competing ethical principles (Marcus, 1980). So for example, healthcare professionals in disasters may experience a conflict between a duty of fidelity to patients already being cared for and self-preservation in the face of danger that may lead to abandonment of patients, or holding to a principle of prioritising lives that can be saved with minimal resource outlay conflicting with a principle saving the lives of those most at risk.

To illustrate Marcus' position regarding the interface between multiple ethical principles, we can return to the choice between therapeutic feeding and immunisation. Let us now suppose that having completed our evaluation of the outcomes of feeding or immunisation, we are confident that immunisation will yield the greatest reduction in morbidity and burden of illness. We conclude therefore that the morally correct course of action is to deliver an immunisation programme, and we duly start our immunisation programme. Let us also suppose that we are committed to the principle of autonomy and people being in charge of how their life goes. Yet it soon becomes apparent that a significant proportion of the encampment are resistant to immunisation. Let us suppose the following courses of action are suggested as ways to increase the numbers being immunised; threats and coercion, cash payments, deception and passing immunisations off as vitamin shots, or using immunisation status as an access requirement for goods and services, all of which can be seen to undermine the principle of respecting patient autonomy. In this situation we have at least two ethical principles in play, reduce morbidity *vs* respect autonomy, a situation that, according to Marcus, introduces the possibility of a real dilemma between incompatible principles. Thus when deciding between therapeutic feeding or immunisations, we have a situation of moral uncertainty, whilst the conflict between minimising morbidity and respecting autonomy constitutes a moral dilemma.

To summarise, the moral difficulties experienced by healthcare professionals in disaster contexts is revealed through questions such as: *Ought we to save the most gravely ill and injured, or should we treat those easier to save? Should we stay on duty to provide care in the face of imminent danger or abandon patients we have started to care for so that we can look to our own welfare? What future am I creating for this patient through what I do now?* Such questions can appear to be moral dilemmas that arises at the interface of irreconcilable obligations. Alternatively, a claim can be made that some dilemmas are apparent dilemmas rather than real dilemmas, and that there is a unique correct course of action to follow, but those in the disaster context may be unsure as to what this course of action is; situations described as situations of moral uncertainty. This uncertainty can be seen to flow from the radical exceptionality of disasters that challenges the established and taken-for-granted beliefs and values that normally structure healthcare practice. The unfamiliarity and otherworldliness of disasters has the potential to introduce doubt as to what ends healthcare professionals should work towards, and doubt as to the moral acceptability of different means to achieve such ends. This places healthcare professionals in an unenviable position of being able, and required, to make choices that have a direct impact on the survival and future well-being of disaster victims, yet also being unsure as to what is the morally correct, or at least best course of action to follow. From reading the experiences of healthcare professionals who find themselves in disasters it becomes clear that the question *"What should I do?"* is one they frequently ask of both themselves and others. For the healthcare professional in a disaster who is faced with choice in uncertainty, a further question also arises; *"how should I choose?"*. These two questions are a recurrent theme that appear and reappear as the ethical landscape of disaster healthcare is explored.

The significance of the difference between moral dilemmas and moral uncertainty

At this point, a fair question to ask is as to the significance, if any, of the distinction between moral dilemmas and moral uncertainty in the real world, especially in the exceptional and fraught contexts that exist in disasters. Marcus provides an answer (Marcus, 1980). Marcus argues[6] that if one operates in a system of a single ethical principle, which in a disaster may be a principle such as saving as many lives as possible or minimising morbidity/burden of illness, then there is a single unique correct course of action, and any felt dilemma is an apparent dilemma rather than a real dilemma. As such, there is no guilt from following the course of action dictated by adherence to the single principle in play. Thus, in dilemmas that are resolvable by adherence to a single ethical principle, guilt is an inappropriate emotional remainder for those who choose (Hursthouse, 1999). However, the actor choosing one course of action over another (for example choosing measles immunisation programmes

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[6] The arguments presented here track the arguments presented by Ruth Marcus in *"Moral Dilemmas and Consistency"* (1980), supplemented by analysis of Rosalind Hursthouse in *"Chapter3; Irresolvable and tragic dilemmas"* in <u>On Virtue Ethics</u> (1999).

over therapeutic feeding programmes) may regret the circumstances that created the choice between two worthy courses of action:

> *"Hence we seem driven to saying that, when the dilemma is resolvable (and the agent is in it through no fault of their own), the only feasible emotional remainder is that the agent deeply regrets the circumstances that made doing* x *necessary"*

<div align="right">(Hursthouse, 1999, p. 76)</div>

If applied to the case presented above regarding the choice between therapeutic feeding and immunisations where the single principle in play is to minimise morbidity, then the healthcare professional who chooses immunisation over feeding should not feel guilt at doing so, only regret that the disaster created circumstances where both feeding and immunisation could not be provided.

Yet some dilemmas are irresolvable and arise at the interface of irreconcilable ethical principles. In such situations it is not possible to emerge without having transgressed a moral principle even as another moral principle is realised. Thus, one is *"to be damned if he does and damned if he doesn't"* (Hursthouse, 1999, p. 65). In such irresolvable dilemmas, Marcus believes guilt is an appropriate response in such situations as the actor recognises that they could have acted otherwise and in accordance with another ethical principle. Thus, returning to the question of immunisation and autonomy if one was committed to a principle of reducing morbidity and committed to a principle of respecting individual autonomy, but chose to engage in deceit and coercion to maximise immunisation uptake, guilt would be an appropriate emotional response. Hursthouse goes further to suggest that in tragic dilemmas where the choice is between transgressing one moral principle in favour of another, then the guilt and remorse that arises can be carried life long as a stain that mars a life:

> *"The difficulty here is to find a suitable sense of 'feeling regret' which is sufficiently powerful to be a suitable reaction to having done* x*, this terrible thing. Guilt and regret are powerful enough – they can haunt one, fill one with despair, mar and even ruin one's life."*

<div align="right">(Hursthouse, 1999, p. 76)</div>

The arguments and views of Marcus and Hursthouse regarding regret, guilt, and remorse as the emotional remainder that those who decide may have particular resonance for those healthcare professionals who find themselves in disasters. These arguments provide a framework for understanding the regret and guilt that are often conveyed in the accounts given by those who seek to provide aid in disaster contexts. Feelings of regret and guilt are frequently expressed by those who have to make decisions whereby some will live whilst others die, or some will suffer whilst others will be relieved of suffering, or some will be provided with the necessities for life whilst others are denied such necessities. The following section considers in more detail some of the hard decisions that face healthcare professionals who find themselves in a disaster.

Difficult choices in disaster healthcare

Up to this point, it has been argued that medical teams and healthcare professionals who work in disasters are faced with, as a minimum, uncertainty as to what they should do, or should not do. This uncertainty flows from the radical unfamiliarity of disasters that present fundamental challenges to established ways of working, a lack of confidence in how the future will unfold, and uncertainty as to the applicability and usefulness of deeply held personal and professional values. We can go further however, and claim with some certainty that healthcare professionals who find themselves in a disaster are faced with ethical dilemmas where there is a choice between two courses of action that cannot both be pursued and where there are no moral grounds by which one course of action trumps the alternative (Marcus, 1980). For healthcare professionals in a disaster context, the irreconcilable choices may lie between radically different ways in which healthcare is delivered (de-prioritising the most in need, abandoning patients without care provision). There is a further type of dilemma healthcare professionals face in disasters that concerns choosing who to treat or care for in the face of overwhelming need.

An almost universal feature of the experience of healthcare professionals working in disaster settings is being confronted by overwhelming need (Asgary & Lawrence, 2014; Cesari & Proietti, 2020; Durocher, et al., 2017; Grimaldi, 2007; Hunt, 2008). This perception should come as no surprise when we consider disasters as events that remove capital and create human need on an exceptional scale. Further, it can be argued that if all needs can be met, then you do not have a disaster. In this way, the experience of overwhelming need is both a consequence and a hallmark of a disaster.

This exceptional need that is a hallmark of a disaster is often described in terms of seas or oceans of people in need. Disaster responders talk of being overwhelmed or swamped by floods of injured and sick (Koira & Basnet, 2019). A physician working in Norther Italy in early 2020 during the novel SARS-CoV-2[7] pandemic, describes the number of people presenting for care at emergency departments as a *"mounting wave of a tsunami"* (Cesari & Proietti, 2020). The perception of an ocean of need throws the finite nature of the response capacity of individuals and organisations into stark relief. This finitude of response is felt not only by individual nurses and doctors but also by clinical teams and whole organisations (Ketchie & Breuilly, 2010). After reading the first-hand accounts of responders caught up in the turmoil of disaster contexts, it is clear that healthcare professionals feel a responsibility of stewardship over the finite resources and response capacity at their command. Health care professionals in disaster contexts frequently express concern that their ability to save lives,

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[7] Severe Acute Respiratory Syndrome (SARS) is a respiratory illness caused by coronavirus (CoV). To date there have been two large scale outbreaks of 2002-2004 caused by SARS-CoV-1, and the ongoing outbreak that began in the latter part of 2019, caused by SARS-CoV-2.

provide treatment and alleviate suffering is not squandered rashly, and express a responsibility to carefully marshal what resources and abilities they have. Yet, despite their best efforts at stewardship, healthcare professionals in disasters find themselves being forced to make decisions about who to save and who to let die, who to treat and who not to treat. When making these decisions, healthcare professionals are often aware of consequences of their decisions. Healthcare professionals know that as they allot resources to one person, they withhold resources from another person also in need. Those making such decisions are often acutely aware that the consequences of their decisions will impose the burdens of avoidable suffering, long-term disability, and even death on some disaster victims.

It seems an inescapable paradox that those who have chosen a professional pathway dedicated to the relief of suffering, the treatment of the sick and ill and the saving of lives, find themselves, in disasters, allowing suffering, disability, and death through decisions that preference the treatment or rescue of person A over person B. For some, this awareness of the consequences of choices causes acute distress at the time that the decision is made as revealed in the memories of those who have found themselves in a disaster:

> *"you still close your eyes, and you see the faces of those people you couldn't help … felt like you were God - picking the ones you were going to save and the ones who were going to die."*

> (Almonte, 2009, p. 483)

> *"… doctors shedding tears as they inform the staff about the difficult decisions that will be made in the coming weeks about who to resuscitate because we don't have enough ventilators."*

> (Turale, et al., 2020, p. 166)

These quotes from healthcare professionals in the midst of a disaster point to the presence of choices that carry a great degree of moral import. Healthcare professionals in disasters recognise that they have multiple obligations that cannot all be met within the context of overwhelming need and a limited response capacity. As a concrete example, this dilemma could present itself to the healthcare professional as an opportunity to rescue two patients whose lives are in jeopardy through the use of mechanical ventilation, but at the same time an inability to provide both patients with mechanical ventilation due to limited resources, a situation with current resonance (Rosenbaum, 2020). Similar dilemmas arise in disasters when considering which trauma victims to admit or who to turn away from a hospital, or which severely malnourished children from a group of many tens to admit to a therapeutic feeding centre knowing that the refused children may be dead by the next day.

There is another form of dilemma that is slightly different from that of having an obligation to do A and to do B, but an inability to do both. This different form of dilemma is illustrated if we return to the situation of the IDF field hospital in Haiti. From the report of this team's activity, it was clear

that they were engaged in dilemmatic problems of the A or B variety, which disaster victims to admit and which to refuse admission to (Merin, et al., 2010). However, the Israeli team were also faced with a dilemma of saving a life now but to condemn the survivor to a life of disability and possible suffering in an environment devoid of effective long-term health services and social protection. The team felt an obligation to save a life, but also not to save the same life that would be marred by disability and suffering. The situation faced by the IDF team can be conceived of as a conflict of obligation to do A but not to do A. As it transpires the team decided not to save the lives or treat those whose future outlook was bleak (Ram-Tiktin, 2017). More up to date examples can be seen in the enforced isolation of nursing home residents in the United Kingdom during the SARS-CoV-2 pandemic. On the one hand isolation is seen as a vital lifesaving intervention to protect nursing home residents; on the other hand, isolating residents from family has had negative impacts on their well-being of those that isolation is designed to protect (O'Caoimh, et al., 2020). Thus, there are arguments to isolate and not to isolate nursing home residents; both to do A and not to do A. From these examples drawn from real world experience we can begin to appreciate the breadth of problems that face healthcare professionals who are attempting to provide medical and nursing care within the constrained environment of a disaster.

The dilemmas faced by healthcare professionals in disaster contexts may present as a conflict between options of who to treat, or the form and extent of the treatment and care delivered. Beyond the care delivered to an individual or group of individuals, similar dilemmas can also be found in larger scale decisions. For example, should resource-intense specialist hospital care for the severely sick and injured be provided, or should the same resources of time, money and materiel be used to protect the health of the wider population through the provision of health protection measures such as shelter or environmental health services? In a similar way, dilemmas of the type to do A and not do A can also arise in larger scale decision making. For example, providing free food to a disaster affected population may meet immediate survival needs but also undermine local economies, market traders and farming practices[8], hence there are arguments to both supply and not supply food aid in disaster contexts.

There is little doubt that moral difficulties faced by healthcare professionals in disasters are complex. Those working in disasters describe how they encounter three forms of difficulty, i.e. moral uncertainty, dilemmas of choosing either A or B but not both, and competing reasons to do A and not to do A. Some may disagree with this presentation, some may argue that all dilemmas are always of the form A or B but not both, others may argue the A but not A is just another form of moral uncertainty. Nevertheless, the point to be made here is that healthcare professionals in disasters do

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[8] See for example the World Food Programme desk study on the impacts of food aid (Lentz, et al., 2005)

experience what they take to be moral dilemmas. And further, these dilemmas involve hard choices about who to rescue, who to save, who to treat or who to pass by, or who to abandon.

In these opening sections of this chapter attention has been given to the types of problems that face healthcare professionals who find themselves in disaster contexts. Reports tell us that the exceptional situations that arise in disasters challenge established practices and decision making. Disasters remove certain opportunities but also constrain the ability to provide effective care and treatment to all in need. In this way, healthcare professional may be denied the opportunity to deliver care they feel they ought to deliver, or be faced with choices as to which needs to respond to, often knowing that responding to one set of needs will necessitate other needs being left unaddressed. Healthcare professionals may be committed to a single ethical principle but experience ambiguity as to which course of action will realise that principle. Alternatively, healthcare professionals may be faced with a choice between options for action that flow from a plurality of ethical principles, giving rise to a real rather than apparent dilemma. However, not all ambiguities and dilemmas experienced by healthcare workers in disasters involve choices about treatment options and healthcare delivery. Healthcare professionals in disasters may also experience difficulties that arise from their dual role as both a response resource and as a disaster victim.

Ethical difficulties that carry particular significance in epidemics and large-scale disease outbreaks.

As discussed previously (see p**Error! Bookmark not defined.** above), large-scale disease outbreaks present threats to a range of forms of capital, either directly, or indirectly as consequences of disease control and health protection measures. These threats may in their turn create widespread needs that are difficult to meet within the resources available. As such, in many cases, large-scale diseases outbreaks present a set of ethical difficulties common to all disasters, namely how to balance competing claims on limited resources. Knowing that to allocate resources to one call will necessarily deprive others of these resources so leaving their needs unmet, and the question of how to balance the positive and negative outcomes of resource allocation, treatment options and health protection measures. However, large scale disease outbreaks may also generate their own kind of specific ethical difficulties.

Health protection measures initiated to curb the spread of disease, to save lives and minimise morbidity may require elements of coercion. Isolation and quarantine may be imposed on those who are sick or those at risk of transmitting infectious agents; family gatherings and other social gatherings may be prohibited, whilst shops, leisure facilities, schooling and work places may be closed against the will, or as a minimum, without the consent of those impacted. Coercion may also be applied to individuals in terms of requirements for individuals to register their movements and personal contacts, requirements that can also be seen to infringe principles of privacy and non-interference. Coercion

may also occur in mandatory immunisation programmes where a range of incentives, legal instruments, and information management may be applied to ensure compliance (Colgrove, 2019). The primary justification for accepting varying degrees of coercion in disease outbreak management is the pursuit of the 'greater good' (Zack, 2009, pp. 26-29). However, such a justification invites the question as to what form this 'greater good' does, or should, take. Further questions can also be asked as to how far the realisation of a 'greater good' can go in trumping individual autonomy, especially considering that restrictions and burdens may be placed on an individual in order to benefit other persons who may be complete strangers to the individual subject to constraint. These ethical issues carry particular significance for those who work large scale disease outbreaks[9].

In addition to questions of coercion, large-scale disease outbreaks can generate ethical difficulties regarding the differential distribution of health threats and healthcare resources across societies. Multiple studies have demonstrated linkages between mortality and morbidity levels and exposure to threats during disease outbreaks and socio-economic status and access to social protections (Fallah, et al., 2015; Houéto, 2019; Paremoer, et al., 2021). As such, large-scale disease outbreaks can introduce ethical questions of social justice and how to respond to those socio-economic inequalities that may be important factors in generating and sustaining disease outbreaks. Thus, in addition to questions of coercion, considerations of social justice and inequalities can be seen to be ethical difficulties that carry particular significance to some kinds of large-scale disease outbreaks.

Healthcare professionals as disaster victims

When considering the place of healthcare workers in disasters two broad situations can be picked out. Firstly, there are those doctors, nurses, midwives, surgeons, nutritionists etc. that choose to go to disasters, for example the IDF field hospital team and the Stanford Hospital team that responded to the earthquake in Haiti. Both the IDF field hospital team and the Stanford Hospital team were experienced disaster response teams who had preparation and experience of working within disasters, as is the case with many disaster responders who travel to disaster contexts (Almonte, 2009; Camacho-McAdoo, 2010; Ketchie & Breuilly, 2010; Merin, et al., 2010; Miura, et al., 2020). The choices of these disaster response teams were voluntary and were made in consideration of the difficulties that could be anticipated during deployment. These teams all chose to travel into a disaster situation to offer help. By way of contrast, Koirala and Basnet in Nepal, and Grimaldi and Cesari and Proietti in Italy, and many others, just happened to find themselves in the midst of a disaster (Cesari & Proietti, 2020; Grimaldi, 2007; Karimi, et al., 2020; Koira & Basnet, 2019; Kollie, et al., 2017; Sato, et al., 2014). When considering these two groups of disaster responders we can perceive one key

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[9] For a more considered analysis of the problem of coercion in public health emergencies, disease outbreaks and mass casualty incidents, Trotter's work The Ethics of Coercion in Mass Casualty Medicine provides a detailed analysis (Trotter, 2007).

difference that separates those healthcare professionals who intentionally travel, in an expeditionary manner, into a disaster and those who by mischance find themselves in the midst of a disaster, this being a difference that turns on choice.

The self-determining nature of the choice of outside responders to go into a disaster appears self-evident. We witness nurses, midwives and doctors packing their kit bags, checking their travel documents, saying farewell to family and colleagues, and setting off on their journey to the disaster. What is less obvious, but equally important, is the realisation that just as surely as they go to the disaster, these expeditionary disaster responders intend to return home. This return home may be at the end of a time-limited deployment or tour of duty, or may occur through repatriation following illness or incapacity, or this return home may be through the exercise of free choice by the expeditionary healthcare professional who no longer wishes to stay in the disaster. For all such expeditionary disaster responders they have the gift of an exit ticket. Thus, we can see expeditionary disaster responders as having the choice to go, stay or return. Further, we can suggest that this choice to go into, and return from, a disaster creates a degree of separation between these responders and those they travel to help. This separation between incoming healthcare professionals and those they aim to help can also be physical. Incoming expeditionary healthcare professionals live in different spaces, eat different food at different tables, and travel in different vehicles (Durocher, et al., 2017). Several accounts from expeditionary disaster responders describe how, even when deployed into a disaster context, visiting healthcare professionals still go into and return from the disaster:

> *"Every morning the Bravo teams would make the hike down the hill to the large tent city below our camp"*

<div align="right">(Ketchie & Breuilly, 2010, p. 492)</div>

> *"The lack of security required the medical team leave HUEH* [Hospital de l'Universite d'Etat d'Haiti] *every evening after dark."*

<div align="right">(Camacho-McAdoo, 2010, p. 386)</div>

These two phrases express in very concrete terms the separateness of the lives of outside disaster responders who travel to a disaster to provide aid, and the lives of those they seek to help.

Not only is the separation a physical one – occupying different spatial locations – there is a separation from risk. When considering the situation of expeditionary disaster responders in disaster contexts, the majority of risk is borne by those in need rather than being borne equally between disaster victim and disaster responder (Hannah, et al., 2009). Durocher, et al., (2017) supports this idea of difference from their study of the experience of local and expatriate responders to the earthquake in Haiti, 2010. In Haiti, the differential was seen as a differential of power and control. Expatriate expeditionary healthcare professionals could choose to leave, could choose where to live,

could choose who to care for. The power differential also manifested in the ability of incoming medical teams to take control of resources such as space, water, food, power, vehicles, often at the expense of disaster victims and local healthcare responders (Durocher, et al., 2017). In this way, expeditionary disaster responders can be seen to have the ability to insulate themselves from many of the risks that arise in disaster contexts; able to secure clean drinking water and sanitation systems, access to adequate food and shelter, secure compounds and even armed guards etc. By contrast, those healthcare professionals who find themselves in a disaster context maybe denied many of the protections enjoyed by expeditionary healthcare professionals and teams.

However, it is worth noting that expeditionary disaster responders may be exposed to ethical difficulties as a result of their position as an outsider. Several studies have highlighted difficulties expeditionary healthcare professionals encounter when their own ethical principles are confronted by different ethical principles and values that assume prominence in the settings to which they travel or are deployed (Broussard, et al., 2019; Draper & Jenkins, 2017; Hunt, 2008; Hunt, et al., 2018; Noguchi, et al., 2016). Such culturally embedded differences may be compounded by unease with aid and intervention models that seem to replicate and reinforce Western discourses of paternalistic charitable giving to the worthy poor (Bankoff, 2004; Fassin, 2012; Thompson, 2015). Such unease may arise from witnessing the differential privileges enjoyed by (largely Western) ex-patriate expeditionary disaster responders compared to those enjoyed by local disaster responders and local communities, or the importation, or imposition, of political and economic structures that reflect a predominantly Western neoliberal worldview (Beckett, 2017; Redfield, 2012; Walonen, 2022). Irrespective of the origin, concern about how disasters and their victims are framed, presented and prioritised, and how individuals, organisations and national governments respond to disasters that happen 'over there' and not on one's door-step, have the potential to generate doubt in the minds of expeditionary disaster responders as to the underpinning values and material effectiveness of the aid responses they are engaged in.

Just as expeditionary disaster responders express choice when they travel into a disaster, so too they can also express choice as to when to leave the disaster context and return home. Such in-coming healthcare professionals come as visitors rather than victims. And, just like all visitors, they will leave and return to their non-disaster life, either at the end of their shift, or at the end of their mission. The position is different for those healthcare professionals who find themselves in a disaster that has occurred on their doorstep as it were. They have no choice as to whether or not to respond to the disaster, an event for which they may be ill prepared. For those nurses and doctors where disaster is unwillingly visited upon them, there is no choice as to whether or not to work in the disaster, no leaving the disaster at the end of the shift, no emergency repatriation home and no scheduled end of mission. With these thoughts in mind, it can be suggested that healthcare professionals who find

themselves in a disaster that occurs on their doorstep, are wedded to the disaster in a way that is much more intimate than that experienced by expeditionary healthcare professionals who choose to go to and return from a disaster. In a way, the lives of healthcare workers who find themselves in a disaster context are far more entangled with the lives of those they seek to help when compared to expeditionary visitors who come and go. The words of one Iranian nurse looking after patients during the ongoing SARS-CoV-2 pandemic captures this entanglement, describing how, even though the patients she cared for were not related to her through biology, she felt a close affinity and identity with them:

"it's true that they are not of our blood, but they are of our kind"

(Galedar, et al., 2020, p. 6)

We can appreciate how local healthcare professionals are both victims of the disaster and also part of the response to the disaster. This dual identity creates new dilemmas for healthcare professionals who are both victims and helper. For these accidental disaster responders, in addition to considering what they should do for those in need and that they are able to help, they also need to make choices about their own welfare and the well-being of their family as they try to live a life in the midst of a disaster. There are multiple examples of healthcare professionals who have found themselves in harm's way and stayed in harm's way in order to deliver healthcare to disaster affected communities.

Following Hurricanes Katrina and Rita that struck the Gulf coast of the United States of America in 2005, Broussard, et al. (2008) explored the experiences of school nurses. A key theme that arose from their study was the school nurses' clear commitment to continue to provide their nursing service even though that resulted in them knowingly placing themselves in harm's way. Again in 2008 following the Wenchuan earthquake in China, nurses found themselves in the midst of danger, yet despite being aware of life-threatening risks, thy continued to work in partially collapsed buildings subject to numerous aftershocks. Despite these very real risks, nurses carried on providing nursing care through a resolve to *"conquer yourself"* and to set aside fears for one's own safety and welfare in favour of the needs of others (Li, et al., 2017). Kayama, et al. (2014) revealed similar experiences after the 2011 Great East Japan Earthquake that resulted in a catastrophic tsunami and immense damage to the Tokyo Electric Power nuclear power station in Fukushima. Public health nurses working in the aftermath of the triple disaster of earthquake, tsunami and nuclear accident, report how they were torn between their professional obligations to provide care to those in need and a fear for their own safety from what was described as an overwhelming sense of menace from radioactive contamination. And again, the experience of teachers in the 2011 Christchurch earthquake in New Zealand, also demonstrates how danger of death was faced and conquered, and personal needs such as checking on

the safety of family were set to one side in favour of attending to the children teachers felt they had responsibility for (O'Toole, 2017). These examples graphically describe how healthcare professionals who find themselves in the midst of a disaster have placed professional obligations in front of obligations to their own welfare and the safety and welfare of their family and dependents. However, such self-sacrifice in the face of danger is not a universal feature of the lives of healthcare professionals who find themselves in a disaster context.

A recent study explored the experiences of healthcare professionals working under siege in Syria between 2013 and 2018 (Fardousi, et al., 2019). Whilst many of the healthcare professionals interviewed continued to work within besieged Aleppo and Ghouta, concerns for family safety were a constant distraction leading to a lack of nurses who absented themselves from work to look after and keep safe themselves and their family (Fardousi, et al., 2019). In this study, healthcare professionals were faced with choosing between their obligation to provide care for victims of the conflict around them or looking to the safety of themselves and their families. This choice was experienced as a true dilemma as it was impossible to do both, that is to say to look after family, and to remain on duty and provide care and treatment to those in need. Further, we can suggest that such dilemmas may provide greater difficulty for those healthcare professionals where a disaster visits them on their doorstep through a tighter entanglement with those they seek to help. For the accidental disaster responders not only are they themselves in the midst of a disaster and in danger they cannot escape, but so too are their family and their home and community. By contrast, for those that choose to enter a disaster they know that their families and homes are elsewhere and safe, they also know that if the dangers to themselves become too great, they can leave. Therefore, it can be argued that accidental disaster responders who did not choose to be in the middle of a disaster face additional dilemmas over and above those experienced by expeditionary disaster responders.

The preceding exploration has focussed on the difficulties encountered by some healthcare professionals who find themselves as both a resource for responding to a disaster and as a victim of that disaster. This duality of role introduces new questions, uncertainties, and dilemmas for those who find themselves, either by design or accident, in a disaster context. Some of the evidence underpinning the preceding exploration has been drawn from the recent experiences of healthcare professionals working in the current SARS-CoV-2 pandemic. This pandemic has been experienced as a novel and exceptional event that carries the hallmarks of a disaster; losses and damages leading to unmet need, disruption of community functioning, impaired response capacity, large-scale suffering, and mass death. The last part of this chapter will be dedicated to exploring some of the moral difficulties experienced by healthcare workers who have responded to this pandemic.

SARS-CoV-2; COVID-19

At the time of writing, we find ourselves in the midst of a global public health emergency, it may be instructive to look at the experiences of healthcare professional working during the ongoing SARS-CoV-2 pandemic. We have already heard the words of Italian physicians working in Northern Italy early in 2020. These physicians felt overwhelmed by a tsunami of cases needing emergency care (Cesari & Proietti, 2020). This experience has been a consistent finding in studies of nurses and doctors working through the early weeks and months of the global coronavirus pandemic (Falcó-Pegueroles, et al., 2020; Fernández-Castillo, et al., 2021; Galedar, et al., 2020). The reality of being overwhelmed has forced healthcare professionals to make decisions regarding who receives care and what that care looks like. Healthcare professionals working in the current pandemic feel that they are unable to offer the care those in need require and the care that they feel professional obliged to deliver (Catania, et al., 2020; Galedar, et al., 2020; Kantrowitz-Gordon, 2020; Turale, et al., 2020). For some, this limitation on care lead to the restriction of life saving interventions when resources were insufficient to meet need. A cardiologist from Northern Italy describes how life-or-death decisions were made as to who to endotracheal intubate, knowing that those denied intubation would probably die soon (Senni, 2020).

Whilst many healthcare professionals face difficulties in providing care that is less than they feel they should give, other professional felt unable to determine what care was best for those in their care. This uncertainty was paired with a realisation that certain choices about what care to deliver would harm patients but there was no way to determine if harm would occur before the choice had to be made (Falcó-Pegueroles, et al., 2020). When considering these experiences, we can see that they fit the pattern already presented above. That is to say, healthcare professionals working during the current coronavirus pandemic have been exposed to overwhelming need that cannot be met, meaning that choices have to be made about who is, or is not, cared for, and choices have had to be made as to what level of care to deliver to those in need. Further, in common with other healthcare professionals in disasters, healthcare professionals working through the current coronavirus pandemic experience ambiguity as to what is the right thing to do, knowing that their choices have the potential to cause harm as well as benefit to those in need.

When discussing the ethical dilemmas healthcare professionals in disasters face, we noted that some disaster responders choose to enter a disaster whilst others find themselves in a disaster by accident. This later description best fits the situation of healthcare workers who have found themselves working within the ongoing SARS-CoV-2 global pandemic. It was suggested above that accidental disaster responders are unable to insulate themselves from the disaster; they are both victims of and responders to the disaster. It was also suggested that this dual identity introduced

dilemmas that were not faced by expeditionary disaster responders who can construct a degree of separation from the disaster, who know that they can leave the disaster, and who know that their families and homes are safe. By contrast, the accidental disaster responders who find themselves in the midst of a disaster cannot escape the danger to themselves and to their families. Healthcare professionals who have worked throughout the coronavirus pandemic are accidental disaster responders and face the dilemmas common to any accidental disaster responder who finds themselves in a disaster they did not choose. Upon reading reports that capture the experience of healthcare workers working in the current pandemic, two linked events appear time and time again, and both revolve around fear. Report after report highlights the intense fear that healthcare workers have felt in responding to the coronavirus pandemic and caring for patients with SARS-CoV-2 disease (Falcó-Pegueroles, et al., 2020; Fernández-Castillo, et al., 2021; Karimi, et al., 2020; Senni, 2020; Vindrola-Padros, et al., 2020). This fear arose from lack of information about the nature of the pathogen, SARS-CoV-2, its transmissibility, infectivity, and pathogenicity. This lack of knowledge was exacerbated by a lack of effective protective equipment. These two factors appear to work synergistically to create a state of severe anxiety and fear. Nurse talk of their dread of looking after patients with SARS-CoV-2, fearing for their own lives even as they provided what care they could , in the words of one Iranian nurse *"Sometimes I think I cannot get too close to the patient, I do not want to die, and in the end of this disease is death"* (Karimi, et al., 2020, p. 1274).

Associated with the fear for self, a second common theme can be identified, a theme of contagion. Many healthcare workers express their fear of carrying SARS-CoV-2 back home to their children, spouses or parents and being responsible for their sickness or death. Whilst the experience of healthcare professionals working in the coronavirus pandemic appear unique and exceptional, they reflect the experience of healthcare professionals who have found themselves in the midst of earlier epidemics and pandemics. In 2002/2003 there was an outbreak of SARS-CoV-1 that caused deaths in China, Taiwan, Canada, Singapore (World Health Organisation , 2003). During that outbreak, just as during the current coronavirus pandemic, healthcare professionals were uncertain as to the nature of the pathogen and uncertain as to how to effectively protect themselves (Chiang, et al., 2007; Shih, et al., 2007). Taiwanese nurses providing care for patients with SARS-CoV-1 infections also feared contagion and bringing infection in the home:

> *"I did not worry about myself; rather, I worried* [about] *my two kids and my elderly parents who might become infected through me as a carrier working at the hospital"*

> (Shih, et al., 2007, p. 174)

Similar concerns over personal safety and contagion have also been expressed by healthcare professionals who worked through the Ebola outbreak that swept through West Africa 2014-2016. In their study of Liberian nurses and midwives, Kollie, et al. (2017) identified a central theme of being

terrorised by the possibility of contracting Ebola through patient care or through contact with colleagues. This terror was not only tied to threats to personal survival but also encompassed terror at bringing Ebola into the home:

> *"what are you taking home for your family? You are not so much particular about yourself but your children and family members at home. So the Ebola outbreak was a terrible, terrible experience."*

<div align="right">(Kollie, et al., 2017, p. 77)</div>

Similar findings were found in Australian healthcare professionals who were contemplating the possibility of having to provide care for patients with Ebola in their local hospitals (Broom & Broom, 2017). For some, the thought filled them with dread, with some seeing the requirement to risk their life in providing care to patients with Ebola as beyond their professional obligation. Fear of contagion and risk to family also appears in the study. However, interestingly the lack of family (being single and childless) was also seen by some as a reason to take on the burden of risk of providing care so as to remove this burden from those with families (Broom & Broom, 2017).

It was suggested earlier that this fear for self and fear for family presents a dilemma to healthcare professionals who find themselves in the midst of disease outbreaks where the risk of contagion is high. Choices have to be made as to how to reconcile professional obligations to those in need, obligations to self-preservation, and obligations to family, loved ones and colleagues. Yarrow sums up these difficulties for those working in the current coronavirus pandemic as *"tensions of caregiver, self-protection, service and the balancing of risk in extreme circumstances"* (Yarrow & Pagan, 2021, p. 89). However, Yarrow could just as easily have been speaking about the situation of nurses, midwives, and doctors working through SARS in Taiwan in 2003, Ebola in Liberia in 2016, the earthquakes in Haiti in 2010, working under siege in Aleppo in 2016, or finding themselves in the midst of Hurricane Katrina in New Orleans in 2005. So, in a way, even though the ongoing coronavirus pandemic appears uniquely horrific and fraught with moral dilemmas, we can also see that these coronavirus pandemic moral dilemmas are not unique. It can therefore be claimed with some certainty that overwhelming need and insufficient resources leading to life-or-death decisions, the provision of an eroded form of care, irreconcilable moral obligations, the possibility of creating harm as good is aimed for, and the immanent risk to self through healthcare delivery are all commonalities to every disaster. So, despite the vividness of current moral dilemmas that we witness first-hand or through the news and social-media channels, they are not new or unique. The moral dilemmas and hard choices being made today are an expression of the essential moral dilemmas that occur and reoccur in every disaster.

Conclusion

At the opening of this chapter an imaginary situation was presented where two trauma surgeons, Patricia and Nadine, witnessed the attacks and collapses of the Twin Towers on September 11th, 2001. The purpose of the case was to highlight the role choice played in creating moral dilemmas. Patricia in Paris, although moved by what she saw, was unable to intervene and therefore outside of any moral dilemma. However, Nadine was presented with multiple options, multiple ways of doing good as it were, she could rush in, or report to the nearest emergency room, or return to work, or rest up and prepare to relieve exhausted colleagues later in the day. Simultaneously, Nadine also had concerns for the welfare of her family and needed to consider and weigh the option of returning home to comfort her husband whose father was working in the Twin Towers. Within this case we can see uncertainty as to what the correct thing is to do in disasters. In disaster contexts there may be uncertainty about which course of action or duty to follow in the face of apparent conflicts. We described this difficult as moral uncertainty. Whilst problematic, moral uncertainty admits that there may well be a unique correct thing to do that flows from a single principle ethical system, but there is ambiguity as to how to realise that principle.

Whilst Nadine's situation is fraught with moral uncertainty, we can also appreciate that Nadine in New York is faced by multiple obligations that cannot be reconciled. Nadine cannot both provide an immediate response and rest up ready to relieve exhausted colleagues later, Nadine cannot both remain on scene to help and comfort her husband who may have just witnessed the death of his father. These irreconcilable pulls of duty can be seen as a real moral dilemma that arises at the interface of different ethical principles where there is an obligation to do A and an obligation to do B, but an inability to do both A and B where there are no moral grounds to preference either obligations. Dilemmas of this type appear and reappear in studies, reports, and first-hand accounts of those working in disasters. If we accept that a hallmark of a disaster is a level of need that overwhelms that ability to respond effectively to all that need, then we can see that dilemmas of A-or-B-but-not-A-and-B are inbuilt into disasters. In concrete terms in clinical practice this dilemma is experienced as choices as to who is saved and who dies, who is treated and who is denied treatment. At a larger, programme design scale, A-or-B dilemmas reoccur when deciding where to site a field-hospital or health clinic for example, a decision that will bringing benefit to one group of disaster victims but leave another group of victims unserved. We also see A-or-B dilemmas when deciding what assistance to deliver, whether to use financial, logistical, and human resources to supply water or blankets or mosquito nets or measles immunisations etc. to disaster victims.

A further dilemma has been presented, the dilemma that arises when there are strong reasons both to do A and not to do A. In clinical practice in disasters this may manifest itself in a pull between

saving someone's life today but realising that their future life will be miserable and short. Alternatively, there may be doubt as to how much care, treatment, and resources to dedicate to a single patient, knowing that as restricted resources are invested in one person, they are denied another. In such cases, a duty is felt to provide the best care possible according to the needs of a patient but also a duty to provide less than optimal care in order to distribute resources to others also in need. A-but-not-A dilemmas also occur at larger scale, programme design levels. Providing large amounts of free aid may meet immediate need but create longer term dependency; lockdowns and stay at home orders in epidemics may reduce case rates in the short term but cause long term mental health and economic damage.

The paragraphs above present dilemmas as problems of choices about how scare resources are to be distributed in response to the overwhelming needs that arise in disaster contexts. There is a further set of dilemmas that arise when considering healthcare professionals who are not only disaster responders but also disaster victims. It has been suggested above that expeditionary healthcare professionals who choose to enter a disaster are to some extent separated from the disaster. By contrast, local healthcare professionals who accidentally find themselves as disaster responders are more deeply entangled in the disaster and its consequences. Accidental disaster responders face multiple conflicting duties, duties to provide care and treatment to disaster victims, solidarity with colleagues, concerns for prudent self-preservation and duties towards the welfare of family, dependents and those that are loved and cherished. Because of the separateness of expeditionary responders, we can suggest that they are insulated from some of the ambiguities and dilemmas that arise from the condition of being both a victim and a responder to a disaster.

Finally, we considered the immediacy of the moral dilemmas thrown up by the current global SARS-CoV-2 pandemic. Even though the reports and testimonies are moving and the images vivid and stark, at their core the moral dilemmas faced by those responding to the current pandemic are, unfortunately, neither new nor unique.

We can see that working in a disaster context as a healthcare professional is accompanied by ethical difficulties. Further, it can be claimed that such ethical dilemmas are endemic to all disasters. In a way, no matter how diverse the context and no matter whether we are considering what to do for a single patient, or a truck load of patients, or a refugee camp or for a whole country, the central question is *"what should I do?"*. It can be claimed that disasters, from the standpoint of healthcare professionals, are always ethical events characterised by choices that carry significant import for self and others, moral uncertainty in exceptional and novel circumstances, and irreconcilable tension between competing obligations.

The purpose of this chapter has been to describe and explore the moral difficulties experienced by healthcare professionals who find themselves in a disaster. There is an appeal for guidance as to what they ought, ought not or may do in the exceptional drastic circumstances that arise in disasters. Consideration needs to be given to the ethical resources that healthcare professionals may call upon to help resolve the moral difficulties they encounter. However, these ethical resources, and the guidance that flows from them, needs to be sensitive to the particular difficulties encountered in disasters, situations where nothing is normal. To this end, the next part of this thesis is committed to an examination of the ethical resources that those in a disaster can call upon.

Chapter three will consider the contribution codes of professional conduct and ethics offer to healthcare professionals in disasters. Chapters four and five will consider the application of two principles held to be foundational in healthcare ethics. Chapter four is dedicated to an exploration of the principle *first do no harm*, whilst chapter five examines the application of the principle of *do good*. These ethical resources (codes of conduct and ethics and foundational principles) will be evaluated as to their usefulness for those facing the moral challenges encountered when working in disasters.

Chapter 3: The usefulness of published codes of professional conduct and ethics for those working in disasters

Introduction

The opening two chapters of this thesis have covered in their turn, a description and exploration of what a disaster is, and a description and exploration of the moral difficulties experienced by healthcare workers who find themselves in a disaster. Disasters have been presented as exceptional events that lead to the loss of capital. Such loss of capital creates unmet need on a large scale that in turn jeopardises human welfare and well-being on a large scale. Disasters may also be events through which things held to be intrinsically valuable are irretrievable lost. Of these types of losses, the loss of people is of significant concern for healthcare professionals in disasters. Disasters are on the one hand statistical exceptions to the norm and their novelty can confound belief leading to astonishment that such an event has happened. Disasters are also exceptional events that challenge peoples' understanding of the world as rationally ordered, and challenge deeply held beliefs and values about how the world ought to work.

Chapter two drew on the experience of healthcare professionals who have worked in disasters. For these professionals, the exceptional circumstances found in disasters challenged, and sometimes confounded, their normal times ways of working. Those in a disaster find themselves faced with overwhelming need coupled with an inability to meet that need. As a result, they have to make choices that will improve the situation of some disaster victims, but will leave some disaster victims without treatment, care, relief of their suffering, or the essentials of life. At times, the difficulties encountered in disasters may reflect the conflict of irreconcilable ethical principles, leading to real ethical dilemmas. Alternatively, there may be a unique correct action that flows from a single ethical principle, but those in the field are unclear as to what this action is or how to realise the single ethical principle effectively. In these latter cases, healthcare professionals in disasters may face uncertainty as to what to do. Both real dilemmas and uncertainty can lead to regret, guilt and remorse. These emotional remainders may be carried by those who make difficult decisions for the rest of their life.

A further area of difficulty identified from the accounts of those who find themselves in disasters is the dual role some find themselves in as both resource for providing aid in the disaster and also a victim of that same disaster. This raises questions as to the prioritisation of self over others and the exercise of partiality towards family and loved ones, felt obligations that may collide with a felt professional obligation to aid. In response to these difficulties, it was suggested that healthcare professionals who find themselves in a disaster may turn to certain ethical resources for guidance in resolving the difficulties they face. By drawing on appropriate ethical resources, those in a disaster

may come to appreciate more clearly what they ought to do, what they ought not to do, and what they may do.

Ethical resources available to healthcare professionals who work in disasters

When considering the ethical resources available to healthcare workers who find themselves in disasters we can consider three broad sets of resources. Firstly there are ethical principles drawn from normative ethical theory. Candidates within this set can be seen to include Rawls' maximin rule that requires the adoption of the *"alternative the worst outcome of which is superior to the worst outcomes of the others"* (Rawls, 1999, p. 133), or Scanlon's contractualism based on adopting principles that no-one could reasonably reject (Scanlon, 1998, p. 189). It is true that such normative approaches can offer unique responses to the question concerning what ought, or ought not, or may be done in a disaster. Indeed, application of these principles to the difficulties encountered in disaster could generate novel insights and solutions. However, doubt can be cast as to the accessibility of such normative principles to those who find themselves in a disaster. One could claim that nurses and doctors in the press of a disaster may have little if any appreciation of such normative principles; such normative principles could be said to suffer from a minimal degree of *at-handedness*[10]. Further, there may be a gap in application between a theoretical concepts such as the maximin rule and its application in disaster contexts that may be far removed from normal life. Thus, some normative concepts can be questioned as to both their accessibility and applicability in disaster contexts.

Secondly, in contrast to normative principles that may be unknown or difficult to apply to the situations that arise in disasters, there are ethical resources more clearly anchored in the realities of disasters. The leading example of such a resource is the *Humanitarian Charter* produced by the Sphere project (Sphere Project, 2018). This *Charter* provides the ethical principles that underpin and shape the form of international response to humanitarian emergencies and is addressed to *"all organisations and practitioners involved in humanitarian aid, including affected and donor governments, international organisations, private and non-State actors"* (Sphere, 2018). Central to this *Charter* is the moral principle of humanity and the belief that all human beings have equal dignity, rights and freedoms. Further, commitment to a principle of humanity is seen to generate an humanitarian imperative to prevent and alleviate suffering and an obligation to protect and ensure disaster victims' right to life with dignity (Darcy, 2011). For those who specialise in humanitarian response, the *Humanitarian Charter* is a key document that has been used to frame what aid is provided to disaster victims and also shape how that aid is delivered. The *Charter* can be seen to have a greater degree of at-handedness compared to more abstract conceptual principles drawn from

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[10] At-handedness is introduced here to describe the relative ease with which some concepts can be recalled and their corresponding primacy as the first concepts that can be called upon to solve problems and answer questions, thus representing a form of availability heuristic.

normative ethical theories. However, having read and reviewed a large numbers of field research and first-hand accounts (particularly those reviewed in Chapter 2 above) it is somewhat surprising to find no mention of the *Humanitarian Charter* as a source of guidance or as a standard for evaluation of practice. Indeed, a search for research studies regarding the awareness of the *Humanitarian Charter* returned zero results. Therefore, whilst the *Charter* may well be used to inform and shape disaster and humanitarian responses at an institutional and programme level, the claim that the *Charter* is an at-hand ethical resource that those in a disaster turn to can be doubted. As a result, frameworks such as the *Humanitarian Charter* can be seen to have a high degree of applicability, but suffer from poor accessibility for those who work in disasters

The third set of ethical resources that healthcare professionals could turn to are their established professional codes of ethics and conduct. In terms of accessibility, one could argue that such resources are highly accessible. This is not a matter of purely physical accessibility but also one of knowledge. It is not contentious to claim that orientation to professional codes of ethics and conduct are a universal feature of initial professional preparation in healthcare, preparation that is itself often regulated by the same bodies who author codes of ethics and conduct. In contrast to specialist frameworks such as the *Humanitarian Charter*, empirical evidence exists that healthcare professionals are aware of, and make use of, their codes of practice and conduct in everyday practice (Kang, 2019; Makhani, 2011; Ropmay, et al., 2021; Tiruneh, et al., 2019). Therefore, it is a fair claim that professional codes of ethics and conduct are accessible and have a high degree of at-handedness. However, what is less clear is the applicability of codes of ethics and conduct drawn up to reflect and guide every-day/normal-times practice to the exceptional circumstances encountered within disasters. This question of applicability is an important question explored in more detail in what follows.

This chapter, then will explore published codes of professional conduct and ethics produced by regulatory bodies and professional associations, from here on referred to as *codes*. A pragmatic choice has been made to concentrate on nursing codes of ethics, firstly to control the scope of what could easily become a very expansive discussion, and secondly in recognition of the reality that the majority of formal healthcare delivered in disaster contexts is delivered by nurses (All-Party Parliamentary Group on Global Health, 2016; Stangeland, 2010; Veenema, 2016).

From the outset, we need to recognise that published codes of nursing conduct and ethics serve multiple functions. Some are regulatory and published by national or regional authorities responsible for the registration and policing of nurses. Others are drawn up by professional bodies and associations to offer practical guidance to their members. A further function of published codes is to define what a profession such as nursing is about, what are its practices and its underpinning values (Chisholm & Askham, 2006). Even though these three views are presented here as separate, they are

in fact closely intertwined in published codes of conduct and ethics. Whilst some codes favour regulation, and others favouring action guidance or professional identity, it should be borne in mind that published codes of nursing conduct and ethics are rarely purely regulatory, action guiding or descriptive of professional identity.

The codes reviewed are general in nature and have been drawn up to reflect the landscape of normal times practice and can be considered as the 'first-stop' or 'go-to' resources that a professional could turn to when faced with significant questions as to what they ought, or ought not, to do. The purpose of this review of codes is to explore the usefulness of these normal-times codes to those who are faced with exceptional difficulties that arise in disaster contexts. The code's content will be examined to identify those elements that provide some form of action guidance to those in disasters. Not only will the usefulness of codes be explored, but the appropriateness of the content of codes will also be evaluated as to how applicable their content is to the exceptional circumstances found in disasters. That is to say, when a normal times code contains statements such as *"The professional must* x *"*, the applicability of such an instruction in a disaster context will be questioned.

A purposive selection of codes has been made that is not intended to be comprehensive but to reflect a variety of regions of the globe, differing levels of national economic development, and a variety of religious and cultural heritages. Countries and sub-national regions were also selected that had both limited and extensive experience of natural disasters. In addition, codes produced by supranational bodies were also included, specifically two documents produced by the International Council of Nurses. These were included in order to assess their usefulness to nurses in helping them navigate the difficulties they face in providing nursing care within a disaster. A brief overview of the selected codes and guidance is presented in Table 1.

Region	Authority & abbreviation	Title	General notes	Exposure to disasters[11]
Africa	Tanzania Nurses and Midwives Council **TNMC**	Code of Professional Conduct for Nurses and Midwives in Tanzania (Tanzanian Nurses and Midwives Council, 2007)	Seven broad principles; respect for humankind & life, consent, professional competence, accountability, honesty and fairness, collaboration, confidentiality.	High
	Nursing & Midwifery Council of Nigeria **NMCN**	Code of Professional Conduct (Nursing and Midwifery Council of Nigeria, 2012)	Covers a wide range of personal behaviours under two broad headings of the professional nurse and the health care consumer, and the professional nurse and the nursing profession.	High
	National Nurses Association of Kenya **NNAK**	Code of Conduct and Ethics (National Nurses Association of Kenya, 2009)	Introductory discussion of broad philosophical underpinnings (human dignity, welfare of nurse, non-discrimination in service delivery, client autonomy, collaborative working, accountability, justice) followed by guidance on a range of personal attributes and behaviours.	High

[11] Classification of exposure was informed by a review of two established information sources; the Centre for Research on the Epidemiology of Disasters annual disaster statistics report https://www.cred.be/publications, and the natural and human made disasters reported by UNOCHA's Reliefweb https://reliefweb.int/disasters. Countries with a **low exposure** experienced either no or a single disaster between 2010 and 2020 countries with **high exposure** experienced either at least one disaster a year or ten or more disasters between 2010 and 2020, **moderate exposure** was applied to countries that experienced more than one but less than ten disasters between 2010 and 2020. Exposure to disasters has obviously altered during the current global coronavirus pandemic, however the long-term history of disaster exposure can still be considered as an important framer of codes produced prior to 2020.

Europe	Consell de Col·legis d'Infermeres I Infermers de Catalunya **CAT**	Code of Ethics for Nurses in Catalonia (Consell de Col·legis d'Infermeres I Infermers de Catalunya, 2013)	Lengthy and detailed discussion of nursing ethics and ethically guided practice. Five broad ethical commitments identified; responsibility, autonomy, privacy/ confidentiality, social justice, professional commitment	Low
	Nursing and Midwifery Council **NMC**	The Code: professional standards of practice and behaviour for nurses, midwives and nursing associates (Nursing and Midwifery Council, 2018)	Twenty five standards of practice and conduct with accompanying statements on how the standard should be operationalised.	Low
Asia-Pacific	Taiwan Nurses Association **TWNA**	Code of Ethics (Taiwan Nurses Associaition, 2012)	Relatively short outlay of a fundamental nursing responsibility (promoting, health, preventing illness, alleviating suffering), followed by thirty seven short statements providing clear action guidance under five headings; nurses and people, nurses and practice, nurses and society, nurses and co-workers, nurses and the profession.	High
	Japanese Nurses Association **JNA**	The Code of Ethics for Nurses (Japanese Nursing Association, 2003)	Contains fifteen statements and accompanying exposition. Includes ethical principles with the virtues of a nurse (sincerity, propriety, noble character, humility).	High
	Indian Nursing Council **INC**	Code of Ethics for Nurses in India + Code of Professional Conduct for Nurses	Seven ethical principles are identified; human dignity, working with individuals as partners, confidentiality, professional competence, working within legal frameworks, cooperative working, personal behaviours to up-hold public trust. Thirty four brief statements guiding professional	High

		(Indian Nursing Council, 2015)	behaviour across broad domains of nursing practice and accountability, management, leadership and professional advancement.	
	Indonesian National Nurses Association **INNA**	Indonesia Nursing Code of Ethic (Indonesian National Nurses Association, 2015)	Broad ethical duties are framed within a duty to God and the nation. Nursing portrayed as a public service to the community.	High
		Indonesian Standards of Nursing Practice (Indonesian National Nurses Association, 2012)	Thirteen standards of professional conduct covering both care delivery and practice as a professional	
	Ministry of Health and Medical Education **IMoHME**	The Code of Ethics for Nurses in the Islamic Republic of Iran (Iranian Ministry of Health and Medical Education, 2011)	Provides a preamble that aligns nursing with Islamic values and virtues. Nursing is presented as both a service to the individual patient and as a service to the nation.	High
North America and New Zealand	Canadian Nurses Association **CNA**	Code of Ethics for Registered Nurses (Canadian Nurses Association, 2017)	Extensive exposition of nursing ethics and conduct. Includes discussion of nursing practice in disaster and conflict settings.	Moderate
	New Zealand Nurses Organisation **NZNO**	Code of Ethics (New Zealand Nurses Organisation, 2019)	Relatively detailed discussion of a broad range of ethical principles from both a Maori and Western perspective Includes a general orientation to values and how these are worked out in nurse-client, nurse-colleague,	Moderate

			nurse-organisation and nurse-society relationships. Includes methodology for address clinical ethical issues.	
	Nursing Council of New Zealand **NCNZ**	Code of Conduct for Nurses (Nursing Council of New Zealand, 2012)	Eight principles of professional conduct are identified, with accompanying standards of behaviour. Strong emphasis on respecting the dignity and autonomy of those receiving care. Statements of behaviour are supported by discursive guidance notes.	
	American Nurses Association **ANA**	Adapting Standards of Care Under Extreme Conditions: guidance for professionals during disasters, pandemics, and other extreme emergencies (American Nurses Association, 2008)	Twenty-page discussion of disaster related altered standards of care. Lays out ethical principles appropriate to disaster contexts. Includes procedural values to underpin decision making in disasters.	High
International	International Council of Nurses **ICN**	The ICN Code of Ethics for Nurses (International Council of Nurses, 2012)	Broad outline of nursing ethics and professional conduct. Used by many nursing associations etc. as a template within which to frame local codes of ethics and conduct. Principles outlined include, respect for human dignity and autonomy, confidentiality, consent, collaborative working, accountability and developing the profession.	
		Core Competencies in Disaster Nursing (International Council of Nurses, 2019)	Discussion of some key principles of nursing care that apply before, during and after a disaster. Weighted towards technical aspects of care delivery. Ethical practice and decision making rather brief.	

Table 1 Overview of Selected Generic and Disaster-specific Codes of Nursing Conduct and Professional Ethics

What do published codes of conduct and professional ethics say about working in disasters?

Deportment and virtue

Published codes provide nurses with two broad forms of content. Firstly, there is advice as to how to conduct oneself as a nurse. The range of issues covered by codes of conduct is large. Some statements of conduct are clearly tied to the performance of professional roles, for example the INNA Standards of Nursing Practice instruct Indonesian nurses to "gain the state-of-the art science in nursing practice" (INNA 2012). In contrast, other statements of nurses' conduct reflect more localised norms of behaviour, for example Kenyan nurses are reminded of the need to dress decently and to refrain from gambling and gossiping about patients (NNAK 2009). Such advice can be seen as largely behaviourist, focussing on outward conformity to prescribed standards with little consideration of motivations or values.

The second form of content is more closely tied to questions of motivations and values. In contrast to behaviouristic codes of professional deportment that focus on conformity of action to standards, other codes contain detail on issues that are more closely tied to ethical issues in nursing practice. This advice addresses issues such as patient autonomy, protection of clients from harm, acting as an advocate for vulnerable individuals and groups etc. (CAT, 2013; INNA, 2015; INC, 2015; TNMC, 2007). However, it is an oversimplification to present these two forms of content as existing in unconnected parallel. In reality, upon reading these codes we can find a great deal of overlap between content that addresses professional deportment and content that addresses key ethical issues. Often, we find expected standards of behaviour being instilled with moral overtones. An example of this merging of conduct and a concern for ethical practice can be found in the Code of Ethics for Nurses in the Islamic Republic of Iran (IMoHME, 2011). In this code the nurse is expected to display altruism, devotion to professional obligations, conscience, justice, honesty, sympathy, compassion, and kindness, and to maintain physical, mental, social and spiritual abilities in order to protect and promote the sanctity of the nursing profession. In a similar vein, Indonesian nurses are reminded that their practice should be based on *"lofty, pure intention for the safety and welfare of the people"* and relies on the *"guidance of Almighty God in carrying out the duties of devotion for the benefit of humanity, the nation and homeland"* (INNA 2015). And again from Japan, the JNA Code of Ethics for Nurses (JNA, 2003) reminds Japanese nurses that *"confidence in nursing depends not only on professional knowledge and skills, but also that the conduct of nurses be derived from sincerity, propriety, noble character, cleanliness and humility … Nurses are required to cultivate common sense"*. In these three excerpts we can see a coming together issues of deportment and behaviour with

beliefs and motivations that are presented as right for the nurse to hold. We can start to perceive how published codes, especially those codes that focus primarily on conduct, not only expect nurses to be good clinicians, but also express an expectation that nurses' behaviour should be above and beyond that expected of the public at large. The picture of a nurse presented in such codes is of a nurse who is not only clinically competent but also in possession of certain virtues of character.

If we reflect back to chapter two a connection can be seen between the experience of nurses in disasters and codes that emphasise deportment and virtues of character. Professional virtues of altruism, compassion, and a dedication to the benefiting of humanity can be seen in the words and behaviours of those who choose to go to a disaster. It would be naïve to assume such motivations were the sole driver for all of those who travel in an expeditionary manner into a disaster context; personal considerations of excitement, personal reward, professional kudos etc. can all be posited as potential reasons for engaging in disaster response work. However, if we rely on the words of those who do travel into a disaster context, ideas of duty, compassion, obligation to respond to the needs of humanity in peril do come through. Further, when we consider the experience of those accidental disaster responders who find themselves in a disaster that visits them on their doorstep, we can see the role codes of conduct that emphasise duty, altruism, and a dedication to humanity, play in creating the pull of duties between serving those in need and looking to one's own welfare and the welfare and well-being of family and dependents.

The many and the one

As described in chapter two, healthcare professionals in a disaster describe themselves as drowning in a sea of human suffering. In such situations, healthcare professionals are faced with 'the many' and their countless needs. For nurses 'the many' presents a deep problem as they struggle to reconcile the needs of an individual patient with the needs of 'the many'. Upon even a brief reading of standards of nursing practice one feature becomes clear; nursing is defined as a professional caring relationship that is orientated toward an individual:

> The following three statements are taken from the Taiwan Nurses Association Code of Ethics:
>
> *II. 1. The nurse respects the life, human dignity and values of the individual.*
> *II. 2. The nurse respects the spiritual beliefs and customs of the individual.*
> *II. 3. The nurse accepts and respects the uniqueness, autonomy, and individuality of the individual.*
>
> (TWNA 2012)

And from the <u>Code of Professional Conduct for Nurses in India:</u>

> *4.1 Takes appropriate action to protect individuals from harmful unethical practice.*
> *4.2 Considers relevant facts while taking conscience* [sic] *decisions in the best interest of individuals.*

<div align="right">(INC 2015)</div>

And again, the NMC's <u>The Code</u> requires nurses to *"treat people as individuals and uphold their dignity"* (NMC 2018). These statements, and many more from across the globe, signal the commitment of a nurse to an individual and the obligation to provide the highest standards of care to that individual. Whilst we may often think of the individual as synonymous with a single person, it needs to be recognised that individual may also be expanded to include a family or household group or a grouping bound together by a commonality.

When considering the reality of working in a disaster we can understand what providing the best standard of care to an individual in need would look like. We can also conceive of what providing best care to an individual family would look like, and also best care to a group of, for example, expectant mothers-to-be, or a bus full of refugees at a border crossing etc. However, in disaster contexts emphasising the attention to individuals in need is an oversimplification of reality. Codes that emphasise the nurse-individual dyad present this pairing as unproblematic, cost free as it were. Yet, as described in chapter two, nurses and other healthcare professionals may choose to give less than the care an individual person or community requires, for example refusing to admit for care those with little chance of long-term recovery, or withdrawing personnel overnight due to security. Further, due to the overwhelming need that characterises disaster, those working in disasters are aware that the provision of care and resources to one patient, or patient group, or group of households, or a clinic etc., will necessarily deprive others in need of the care and resources they too deserve. These issues lie at the heart of some of the most keenly felt moral difficulties that face healthcare professionals when making decisions about selection, prioritisation and deselection of patients and communities for care, treatment, and resource allocation in disasters; a situation described by healthcare professionals as 'playing God' (Camacho-McAdoo, 2010; Cesari & Proietti, 2020; Merin, et al., 2010).

Even though codes place emphasis on the professional obligation to respond to individuals in need, they are largely silent on how to resolve the competition of care and resources that exists in disaster contexts. However, some codes go further than emphasising the priority of the nurse-individual pairing. Some codes place obligations on nurses that are difficult, if not impossible, to fulfil within a disaster. Take for example the <u>Code of Professional Conduct for Nurses and Midwives in Tanzania</u> ; nurses should:

"strive at all times when providing services to: ...
ensure that no action or omission on her part or within her sphere of responsibility is
harmful to the interests, condition, safety and well-being of a patient/client."

<div align="right">TNMC (2007, p3)</div>

Or from the <u>Code of Ethic for Nurses in Taiwan</u> published by the Taiwanese Nurses Association:

"The nurse provides care corresponding to professional standards and at all times
maintains the highest nursing standards possible."

<div align="right">TWNA (2017, part iii)</div>

And again, from the NMC:

"Act in the best interest of people at all times"

<div align="right">NMC (2018, part iv)</div>

Here the question remains unresolved as to how the nurse should balance the competing and irreconcilable obligations to provide the highest standard of care possible to multiple individuals whose care needs are in competition for the same restricted resources. It is unclear as to what a nurse is to do when she has the potential to do a great deal of good for patient P1 but chooses to provide less than the 'highest nursing standards possible' to P1 in order to divert time, attention and resources to a second patient P2. If, as a nurse I choose to withdraw myself from care provision overnight due to fears for my own safety, it is difficult to see how such an act is not harmful to the interests of patients. If I choose, as a nurse in a disaster context, to withhold available resources from someone who is seriously injured in favour of others who are less seriously injured it is difficult to argue that I am maintaining the highest standards of care possible. It is also unclear whose best interests I am serving, certainly not the person who is seriously injured. Using language that sets universal standards of practice that are binding for all nurses in all situations, language such as "at all times" "no act or omission", fails to recognise the exceptional circumstances that occur in disaster contexts. It could be argued that such universal statements offer little, if any, room for manoeuvre. Further, statements such as 'act in the best interest of people at all times' lack any specificity as to whose best interests count. Thus, we can see that some codes are highly specific and demanding, whilst other codes are underspecified, creating worthy aspirations yet lacking in clarity.

What appears to lie at the heart of these difficulties is a failure to appreciate that a focus on the needs and care of an individual fails to accommodate the reality that care delivery in disaster is made within a context of overwhelming need where the needs of different patient stand in competition to each other. Not only are disasters defined by overwhelming need, they are also often characterised by a restricted or compromised ability to deliver healthcare services. In this way we can see that many codes fail to appreciate the tension between the needs of the individual, the needs of multiple

individuals who stand in competition with each other for restricted resources. Further demands are created by the pressing nature of the needs that face those who work in disaster contexts. Healthcare professionals are acutely aware that the decisions they make in disaster contexts are one's that govern who lives and dies, and the degree of suffering and disability of those who do survive. At the heart of many of these choices are choices over the distribution of finite resources.

Resource allocation

Whilst some codes can be criticised for failing to appreciate the reality that care to an individual takes place within a context of competing calls on that same care, some codes do recognise the difficulties that attend resource allocation. As an example, The Code of Ethics for Nurses produced by the Japanese Nursing Association addresses the problem of resource allocation:

> "*Exposition 1   Recent advance in science and technology have changed impossible medical interventions into the possible, while ever-growing medical expenses remain a national issue. These issues pose complex and difficult problems in bioethics and the equitable distribution of limited resources. Nurses should stand on the basis of the protection of life, personality and dignity anytime in making judgements and conducting themselves ...*"

<div align="right">JNA (2003, p2)</div>

Even though this exposition is rather sparse and not directly referencing disasters, this section of the Japanese code does provide some guidance as to the values the nurse should employ in their decision making when faced with hard decisions about resource allocation. Other codes, for example those published by the Canadian Nurses Association, the Indian Nursing Council and the Indonesian National Nurses Association, also highlight the role the nurse has in equitable and fair distribution of resources. The Indian Nursing Council code instructs the practitioner to prioritise those with most need and those who are most vulnerable when distributing resources, however what needs count and what vulnerability look like are not further developed. The Indonesian National Nurses Association code goes a little further in specifying effectiveness and efficiency as the key outcomes of resource allocation, but again what effectiveness and efficiency looks like remains unclear. Despite the obvious weaknesses of these statements as published, they do emphasise the nurse's role as a steward of resources and point towards the outcomes such stewardship should work to achieve, namely protection of life and human dignity. Guidance also exists that highlights the need to target finite resources at those most in need and most vulnerable, in such a way as to maximise effectiveness and efficiency. This guidance goes some way to fill the empty space present in those nursing codes that are silent on the difficulties of balancing multiple calls on limited resources that are a central feature of disasters. Prioritising the most vulnerable and needy, and pursuing efficiency and effectiveness do

give reasons for choosing how much and what type of care to allocate to an individual within a disaster context.

Including some direction as to how resources should be shepherded and allocated in a nursing code of ethics or conduct is certainly a step forward. Yet, for the nurse working in a disaster context there is still ambiguity as to how to weigh the diverse and competing needs of a multitude of highly vulnerable disaster victims. Additionally, what effective and efficient resource allocation looks like in the resource-poor and information-poor contexts found within highly dynamic and evolving disaster contexts, remains unclear. The Code of Ethics for Registered Nurses produced by the Canadian Nurses Association provides more clarity about the stewardship role of the nurse. As expected, the Canadian code opens with rather broad obligations and duties; provide care that is safe, compassionate and competent to individuals etc. Rather interestingly, there is also a strong communitarian undertone running through the opening sections of the Canadian code. The general preamble to the Canadian code explicitly extends the scope of nursing relationships from a nurse-individual pairing, to an expanded set of relationships that encompass the nurse's relationship to families, communities, and the national population (CNA 2017). The Canadian code's general preamble also emphasises social justice and the determinants of health as of concern to nurses. This code also recognises the significant influence practice environments play in enabling, or limiting, a nurse's ability to uphold the ethical standards of the code. These two contextual elements, a nursing concern that moves beyond the atomised individual and a recognition that some care environments work against the provision of ethically sound care, find concrete expression throughout the following excerpts from the code:

> *"Providing safe, compassionate, competent and ethical care*
>
> *A.7   When resources are not available to provide ideal care, nurses collaborate with others to adjust priorities and minimize harm.*
>
> *Promoting Justice*
>
> *F.6   Nurses make fair decisions about the allocation of resources under their control based on the needs of persons receiving care. They advocate for fair treatment and for fair distribution of resources for those in their care."*

<div align="right">CNA (2017, pp 9, 15)</div>

The above statements recognise the imperfect world nurses practice in every day, that is to say a world where resources are finite and pragmatic decisions about resource allocation have to be made. The daily imperfections and mismatches between care needs and resource availability increase exponentially in disasters where resources are stripped away and healthcare professionals find themselves faced with overwhelming need that is pressing. Whilst it is true that the problems nurses and other healthcare professionals face in a disaster may be overwhelming, the Canadian Nurses Association code underlines the fact that many of the problems faced by healthcare professionals

within-disaster contexts are essentially no different to the difficulties healthcare professionals face on a day to day basis. As such, the well-rehearsed problem-solving techniques healthcare professionals employ in everyday practice do not become redundant in a disaster, but rather they can form the basis of professional decision making within the peculiar settings found in a disaster. Upon further reading, the Canadian code can be seen to provide a series of hand-rails to guide the nurse making hard decisions in the face of competing calls on finite resources. These hand-rails may be of some use to those making hard choices in disaster contexts:

- recognise the resources under your control
- recognise that resource constraints make the provision of ideal care impossible
- adjust priorities in the face of constrained resources
- distribute resources fairly
- maintain a commitment to do good
- minimize harm

When considering the Canadian Nursing Association code of ethics, it can be argued that we have a code that, although not designed with practice in a disaster context in mind, presents a set of values, and procedural decision-making guidance, that can be extended from the normal-times experience of healthcare practice, to the exceptional circumstances found within a disaster. As such, we can see that whilst some codes fail to appreciate the difficulties of balancing the needs of the one with the needs of the multiple individuals, or create obligations that are overdemanding, some codes do address the core issue of the distribution of care and resources across individuals whose needs compete for the same limited set of resources.

Personal welfare

In chapter two, a dual identity of nurses and other healthcare professionals in disasters was presented, that is to say healthcare professionals who find themselves in a disaster context are both a victim of the disaster and agents able to respond to that disaster. This dual identity raises questions as to how to balance professional obligations to provide care and obligations to look to the welfare and well-being of self and family and other dependents. In response to this difficulty, we can see that several codes make generalised reference to the duty of the nurse to maintain their own health and well-being.

Examples of the most general instructions to nurses to pay attention to their own welfare can be found in several published codes of conduct. As an example the Indian Council of Nurses entreats nurses to practice *"healthful behaviour"* (INC 2017, sec 1.9), whilst UK nurses are expected to *"take account of your own personal safety"* (NMC 2018, sec 13.4). The Nursing Council of New Zealand

(NCNZ) <u>Code of Conduct for Nurses</u> (2012) provides a further clarification of the professional duty placed upon nurses to look to maintain their own health:

> *"8.7   You have a responsibility to maintain your health and well-being, and to seek assistance if your health threatens your ability to practise safely"*

<div align="right">NZNC (2012, p10)</div>

Here, ensuring the health and well-being of nurses is presented not as a good in and of itself, but as a way to ensure a high standard of nursing care. The welfare of staff is almost an operational imperative that needs to be in place in order to ensure that high quality nursing care can be delivered. The valuing of nurse's health and well-being as a means to an end is very clearly expressed in the <u>Code of Ethics for Nurses</u> produced by the Japanese Nursing Association:

> *"Exposition 12   Nurses strive to protect and promote their own physical and mental health in order to provide quality nursing care … nurses should maintain a balance between work and their private lives, and between work and rest"*

<div align="right">JNA (2003, p6)</div>

This exposition provides nurses with a justification to act in ways that promote their own personal welfare. Further, this exposition can also be seen to provide a retrospective justification by providing an answer to questions such as "Why did you not report for duty?" or "Why did you leave your place of work?". In this way, the Japanese code can be seen to give permission to a nurse to look to their own needs, as well as the needs of those in their care. The Canadian Nurses Association goes further by providing positive reasons for not engaging in care delivery. The Canadian code places an obligation on nurses not to engage in care delivery if they are unfit to provide safe and effective care:

> *"G5 Nurses maintain their fitness to practice. If they are aware that they do not have the necessary physical, mental or emotional capacity to practise safely and competently, they withdraw from the provision of care …"*

<div align="right">CNA (2017, p17)</div>

The Japanese and Canadian principles can be seen as complementary. The Japanese codes tells the nurse that they are justified in looking to their own welfare as they balance the demands of private and professional lives, whilst the Canadian code requires the nurse to absent themselves from care delivery if their well-being is compromised to such an extent that they are unable to provide the standard of care required by patients. These two principles can be seen as safeguards for the nurse that serve to counterbalance the over-demanding calls made in many codes that stipulate that nurses must provide the highest standard of care to all patients at all time. The two principles of promote your own welfare and absent yourself when unable to care, can be seen to act as a place of refuge as it were for nurses who feels themselves overburdened by the needs and demands of others, a situation commonly

felt by nurses in a disaster. In chapter two, the situation of nurses who responded to SARS-CoV-1, Ebola and more recently SARS-CoV-2 disease was presented. These nurses felt an obligation to present themselves at work even though they felt that to do so risked death to themselves and possible contamination of their family. For these nurses, the permission to look to their own welfare may have offered some degree of protection to those nurses who felt unwilling and/or unable to provide care to patients.

It is unclear as to whether extreme life-or-death disaster contexts were in the minds of the authors of the Japanese and Canadian codes, however these codes do offer a counter to some of the more strident calls to provide care without consideration to your own welfare. Some professional bodies have gone further. As an example, the Royal College of Nursing (RCN) issued guidance to its members regarding the duty to report for duty without access to effective personal protective equipment in the early days of the ongoing SARS-CoV-2 pandemic. The Royal College concluded that, in the face of a poorly understood and highly lethal novel infection, nurses who *"have exhausted all other measures to reduce the risk and you have not been given appropriate PPE* [Personal Protective Equipment] *in line with the UK Infection Prevention and Control guidance, you are entitled to refuse to work"* (Royal College of Nursing, 2020). The statement from the RCN recognises that the obligation to provide care is not limitless and that nurses are justified in looking to their own welfare in the face of imminent threats to their own safety, and also the safety of family and dependents. Thus we can see that, whilst many codes fail to accommodate the very real threats to welfare that disaster contexts place on healthcare professionals, some codes and guidance does exist that prioritises the self-care of healthcare professionals over their obligation to provide care to those in need.

Confidentiality and consent

The preceding explorations have taken as their focus general codes of ethics and professional conduct drawn up with normal, everyday practice in mind, therefore, it may be of no great surprise that these codes contain little advice and guidance that specifically addresses the exceptional situations found within disasters. Whilst most codes are largely silent on the peculiar problems encountered within a disaster, especially reconciling the competing call on limited resources and the provision of less than ideal care in order to benefit others, one disaster related issue is addressed indirectly in many general codes. Upon review of codes the most frequent disaster-specific problem commented on is information sharing[12].

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[12] Reference to issues of information sharing and the breach of a duty of confidentiality for public health or other reasons can be found in the codes from Canada, Catalonia, India, Iran, Nigeria, New Zealand, Tanzania, the USA and the UK.

For any public health measure to be effective there needs to be a collection, analysis, and distribution of epidemiological data. In situations of public health emergencies such as disease outbreaks, accidental environmental contamination (for example following industrial accidents), or intentional acts such as chemical, radiological, or biological terrorism, the sharing of patient data becomes a vital element of an effective response. This sharing of clinical data happens both within and between agencies in order to understand the nature of a public health threat and to plan an effective response to such threats. On some occasions, an infectious disease outbreak or environmental contamination may be the event that is identified as a disaster. Public health emergencies and disease outbreaks may also arise following events such as cyclones, earthquakes, tsunamis etc., through the destruction of sanitation systems, damage to industrial plants etc. From a public health perspective, the collection and dissemination of data is not only unproblematic, but positively encouraged. However, the wide sharing of patient data collides with a professional obligation to keep patient related information confidential.

It is not unreasonable to claim that a nurse's duty to maintain patient confidentiality is a foundational and universal principle of professional nursing conduct. The obligation to maintain confidentiality is presented in the opening statements in the International Council of Nurses Code of Ethics for Nurses (ICN 2012), in statement five of the NMC code (NMC 2018), in section E of the Canadian Nurses Association code (CNA 2017), statement seven in the Tanzanian Nurses and Midwifery Council code (TNMC 2007), principle five of the Nursing Council of New Zealand (NCNZ 2012), whilst the New Zealand Nurses Organisation identify confidentiality as one of nine underlying values of professional nursing (NZNO 2010). Without accessing all codes published by regulatory bodies and professional organisations, it is impossible to claim that protecting the privacy and confidentiality of patients and their information is a universal feature of all codes of nursing ethics and conduct. On the other hand, there is no reason to doubt that a duty of confidentiality is in fact a universally accepted principle of healthcare conduct and ethics. The centrality of a duty to maintain confidentiality to healthcare practice is also reinforced by the prominence of confidentiality in texts on healthcare ethics (Beauchamp & Childress, 2019; Duncan, 2010; Edwards, 1996; Jackson, 2006).

The clear and unambiguous duty to maintain the confidentiality of patient information serves well in times of normality. However, many codes introduce caveats and temper the language of an absolute obligation to maintain patient confidentiality with the need to protect the public from harm. The following examples illustrate how these caveats are presented by both regulatory bodies and by professional nursing organisations:

"Keep information and records of the client confidential except ... for protecting the consumer and public from danger"

<div align="right">NMCN (2017, statement 2.4)</div>

"The nurse assesses to what extent she should maintain confidentiality when ... revealing information in order to avoid danger or important harm to other people or to the collective group"

<div align="right">CAT (2013, statement 56)</div>

"Being aware that protecting client's personal information may conflict with society's need for knowledge to protect itself from harm"

<div align="right">NZNO (2010, p24)</div>

In these three examples, confidentially is presented as a *prima facie* duty that is binding on all but can be overridden if a stronger duty supervenes. In the case of confidentiality in disaster contexts, the supervening duty is presented as a duty to ensure public safety and protecting the public from danger (Geiderman, et al., 2006). Even though duties to the public good override the duty to hold patient information in confidence, it does not annihilate this latter duty. That is to say, confidentiality as a professional obligation continues and places limits on what information is shared and with whom. In this way, disclosure of information is on a need to know basis, and made in a way that maintains anonymity where possible, and ensures any information shared is kept as secure as possible to prevent accidental disclosure or unwarranted access (Caldicott, 2020; World Health Organization, 2016). With all these safeguards in place it is clear from reading codes that there is a view that the public good outweighs any individual's right to have their information held in strict confidence. In a similar vein to a point made above regarding aspects of codes that require nurses to consider their own welfare, it is unclear as to whether or not large-scale disaster contexts were in the minds of the authors of those aspects of codes that address information sharing for public safety. However, the inclusion of caveats around patient confidentiality does provide an approach to information sharing that is more fitted to disasters than language which is more absolutist in tone.

It is not controversial to claim that just as confidentiality is a universal feature of healthcare professional conduct and ethics, so too is the duty to obtain consent from those who are the recipients of care and treatment. As an example, the Tanzanian Nurses and Midwives Council code of conduct identifies the duty to obtain consent as second in a list of seven guiding principles (TNMC 2007). This code continues with a further nine-point exposition on consent in nursing practice that is based in a respect for "*patient's and client's autonomy – their right to decide whether or not to undergo any health care intervention*" (TNMC 2007, p4). Similarly, the Catalan code provides a ten-point exposition on consent that is preceded by a value statement "*As nurses, we recognise the autonomy of*

people and we therefore respect their right to being informed and to freely making their own decisions" (CAT 2013, p21). Whilst the New Zealand Nurses Organisation places autonomy first in its list of underlying values, defining autonomy as the *"right of individuals to self determination"* (NZNO 2010, p12). References to autonomy and self-determination can also be found in codes produced outside of what can broadly be described as a Western liberal tradition. Autonomy and self-determination can be found as guiding principles in the codes from India, Indonesia, Iran, Japan and Taiwan (INC, 2015; INNA, 2015; IMoHME, 2011; JNA, 2003; TWNA, 2012). With these points in mind, it is difficult to perceive significant grounds to doubt that a duty to obtain consent is present in all codes of professional practice.

The exploration of confidentiality above highlighted the explicit caveat that public safety could override the *prima facie* duty to hold patient information in confidence. This caveat can be seen to provide license to health care professionals to share confidential information in times of disasters, especially where the disaster contains risks to public health and safety, such as infectious disease outbreaks and environmental contamination. When we look for a similar caveat with respect to the *prima facie* duty to respect autonomy and gain consent, none can be found. As a rule, codes do recognise that situations arise where an individual lacks the capacity to provide consent through mental or physical incapacity. Further, some codes make explicit reference to the overriding of the duty to obtain consent in emergencies that threaten the survival of an individual. This is well put by the Iranian code:

> *"As an exception, in case of an emergency, when the immediate therapeutic action is mandatory for saving the client/patient's life; start the necessary intervention without patient's consent"*

> IMoHME (2011), sec 3-10

And in the code from the Tanzanian Nurses and Midwives Council:

> *"In emergencies where treatment is necessary to preserve life, you may provide care without consent, if the patient or client is unable to give it, provided you can demonstrate that you are acting their best interests"*

> TNMC (2007), sec2.8

Whilst some codes do directly consider when the duty to obtain consent can be overridden in an emergency, the number of codes that address this issue explicitly is small. In codes that fail to address the issue of overriding the duty to obtain consent in an emergency, the closest principle that can be seen to apply is the principle of acting in the best interest of the person in need. The NMC code requires nurses to *"balance the need to act in the best interests of people at all times with the requirement to respect a person's right to accept or refuse treatment"* (NMC 2018, sec 4.1). This statement, and similar statements in other codes, can be seen as providing some justification to the

overriding of the duty to obtain consent in emergencies where the best interests of a person in need can be best served by acting prior to gaining consent or by acting where it is unclear whether consent would be given or withheld – for example when caring for individuals incapacitated by illness or injury.

When we compare how codes handle confidentiality and consent in disasters side by side, an interesting contrast emerges. In the case of confidentiality, this duty can be overridden by duties to protect public health and public safety, effectively the good of others. By contrast, in the case of consent, this duty can be overridden by a duty to secure the best interests of the individual whose consent is in question. Interestingly, none of the codes reviewed identify securing the good of others as a justification for overriding the duty to obtain consent from an individual.

To understand the significance of this point we can return for a moment to the experiences of the Israeli field hospital team working after the Haitian earthquake were explored. This team created admissions criteria that excluded patients with serious injuries where there was minimal chance of long-term successful rehabilitation and recovery (Merin, et al., 2010). The team unequivocally explain that these decisions were made in order to serve the good of others by allocating resources to those likely to benefit (Merin, et al., 2010). When considering the issue of consent, it is unclear as to whether or not injured patients who were denied care under these conditions actually consented to being denied care. Further, if we accept the position set out in codes that the duty to obtain consent can be overridden in emergencies in order to realise a patient's best interests, it is not clear how denial of care in a disaster is in an injured person's best interest. In a similar vein, concern has been raised regarding the variations seen in the use of surgical interventions such as limb amputations between different medical teams, with some medical teams appearing to overuse amputation compared to the management of similar injuries by other teams (Redmond, et al., 2011). One concern raised in the face of this variation was a weakness in ensuring consent for amputation was informed and patients given the option of more conservative limb-saving injury management (Stratton, 2011). In a similar way, issues of patient consent can be seen to be at play in more recent decisions during the SARS-CoV-2 pandemic. When Senni discusses the difficult decisions as to who to intubate and ventilate in the early stages of the pandemic, it is not clear that patients consented to have potentially lifesaving treatment withheld from them in favour of another (Senni, 2020).

Whilst such lack of consent can cause alarm, we can consider the limitations the disaster contexts may place on the process of gaining valid consent. Firstly, due to the nature of a person's illness or injuries, there may be little time available for that person to comprehend information given, weigh up the various treatment options available and express their wishes to those offering aid, for example disaster victims with life-threatening chest and head injuries, or catastrophic external or

internal haemorrhage. Secondly, obtaining consent in emergency and highly pressured environments takes time and increases the workload of those seeking consent; time spent explaining procedures and presenting alternatives to one victim may simultaneously deny another victim of attention, care & treatment. A final constraint on gaining consent in disasters is the possibility that healthcare professionals, particularly expeditionary disaster responders, will not share a common language with the victims they seek to aid. As such, gaining consent may be unachievable or only achievable through the use of interpreters, a process that is not without its own difficulties in terms of the availability of proficient interpreters who are able to competently translate technical medical information into language and concepts that are meaningful to disaster victims (Kavukcu & Altintas, 2019; Zoraster, 2013). All of these factors contribute to limit the opportunities for gaining consent that is informed and valid. It is an interesting and unresolved question as to how far the professional duty to obtain valid informed consent is preserved or falls away in the exceptional circumstances of a disaster, circumstances that may give licence to altered patterns of governance as discussed above (see p 72). This lack of resolution introduces a further point of moral uncertainty into the experience of healthcare professionals who find themselves in the midst of a disaster.

Concerns have also been voiced more recently regarding the imposition of constraints on personal liberty and changes to how and what care is delivered during the ongoing SARS-CoV-2 pandemic (Turnham, et al., 2020). For those forced to self-isolate and 'shield' for many months, or for those who have had cancer treatments suspended, or for those separated from family in their final days, it is not clear how the professional commitment to autonomy and consent has been realised. It could be suggested that assent rather than consent is more true reflection of what happens when public health protection measures are imposed on individuals. When considering consent and how these are overridden in disaster contexts, two features can be picked out.

Firstly, from reading codes of professional practice and ethics, it is unclear as to whether or not the duty to secure the good of others in disasters provides a reason to override the duty to obtain consent from those able to consent. Whilst the experience of the Israeli field team focusses on admission criteria in acute trauma care, the same fundamental issue can be seen at play in public health measures such as quarantine, isolation, the covert placement of do-not-resuscitate orders on the elderly and disabled, and mass immunisation programmes (Trotter, 2007). It may well be the case that the good of others can override the duty to obtain consent, however codes are silent on this issue. The implications of this silence will be explored below when considering the usefulness of codes to those healthcare professionals who work in disaster contexts.

The second aspect of the problem with the handling of consent in disasters concerns what is good for the individual. The codes reviewed identify how the *prima facie* duty to obtain consent from

an individual in need can be overridden in order to secure the best interests of this same individual in need. The problem lies in reconciling this principle with the actions of the Israeli field hospital team in Haiti. It is difficult to see how denial of care and denial of even a slim chance of recovery is in a person's best interests. Similarly, it is difficult to see recent public health protection measures such as enforced isolation, or removal of the possibility of resuscitation as being in the best interest of the individual isolated or denied resuscitation. It may well be the case that a well-reasoned justification for such actions can be found, but such justification does not flow from arguments anchored in serving the best interests of the person denied consent, holding in mind that 'best-interest-of-the-individual' justifications are presented in codes as the only justification for overriding the duty to obtain consent and respect autonomy.

We can see that professional duties towards confidentiality and consent have the potential to create dilemmas and uncertainty for healthcare professionals working in disasters. Many codes identify the possibility of overriding the duty to confidentiality owed to an individual in order to benefit the good of others. By contrast, codes do not recognise a commitment to the good of others as generating obligations that override the duty to obtain consent. Codes present the duty to realise the best interests of an individual as having the possibility of overriding the duty to act with the consent of that same individual. Disasters present many challenges to the professional duties towards confidentiality and consent. However, as a final interesting note, upon examining the moral dilemmas and uncertainties experienced by nurses and doctors in disasters, none centre on patient confidentiality, privacy, consent, or autonomy. It is somewhat surprising that issues of breaching confidentiality, or acting without consent or against a patient's wishes, are not raised as areas of difficulty by those working in disasters. It is not clear as to why ethical difficulties around confidentiality and consent are largely absent from reported experiences of those who work in disaster contexts.

Recapitulation

The aim of this opening section of chapter three has been to explore what published codes of conduct and professional ethics say about working in disasters. A casual first impression is that such codes say very little specifically about working in disasters. We might well criticise published codes as failing to address the life-or-death moral dilemmas and ambiguities encountered by nurses and doctors in disasters. We might criticise codes for running out of significant content at just the point when difficult questions need to be answered. However, a reasonable response to this impression is a rhetorical question, *"Why should they address exceptional and non-normal circumstances?"*. Codes of professional conduct and ethics are drawn up to regulate, guide and describe the practice of nurses and doctors and other healthcare workers in what can best be described as normal, everyday practice.

However, as discussed in chapter one, disasters are by definition exceptions and are not normal. Thus, the expectation that a code produced to address everyday should also address the exceptionality of practice in a disaster can be seen as unreasonable or overdemanding. Therefore, to criticise codes for failing to address the exceptionality of a disaster may be uncharitable, if not unreasonable. However, such criticism is based on a casual first impression only.

Upon a closer inspection, codes produced to address everyday practice do in fact contain elements that relate to the issues faced by healthcare professionals in disasters. The following points can be identified across a broad range of codes of professional practice ethics[13];

- Altruism and service to others are presented as professional virtues
- The primary focus of the professional practice is the individual in need, be that an individual person, a family, or a commonality of individuals sharing a common characteristic
- People in receipt of care should receive the best care possible
- Resources have to be distributed between competing calls
- Whilst the welfare of those receiving care is of primary importance, professionals should look to their own welfare when it compromises their ability to provide safe and effective care
- *Prima facie* professional duties to hold patient information in confidence and to obtain consent from those receiving care can be overridden by appeals to the best interests of the person receiving care or the best interest of others.

When identifying these points, some initial comments have been passed as to the usefulness or otherwise of the content of codes to those who find themselves in a disaster context. However, the question as to how useful published codes of professional conduct and ethics are to the healthcare professional warrants a closer analysis.

How useful are codes of conduct and ethics for the healthcare professional in a disaster?

When considering an answer to the question of the usefulness of codes produced for normal times to those working in a disaster three positions can be identified. Firstly, many codes are silent on the particular difficulties encountered in disasters as has already been highlighted above. Secondly, some codes can be seen to be overly demanding and placing excessive expectations on healthcare professionals who work in disasters. further, some of these expectations may only be achievable at great personal cost. Thirdly, some codes do contain elements that address in some manner the difficulties experienced by nurses and other healthcare professions. To examine the issues of silence

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[13] An important caveat is that different codes differ in their content, some codes contain little that can be related to disasters, whilst others contain several aspects that can be tied to professional practice in disasters.

and over-demandingness, it may be value to focus on two central issues faced by those working in disasters, namely the problem of the 'many and the one', and the balance between personal welfare and professional obligations.

A return to the many and the one

Above, in both chapter two and in this current chapter, space has been given over to the reality that in disasters, healthcare professionals are confronted by excess need that cannot be met; those working in disasters use words such as 'overwhelming', 'tsunami', of being 'swamped'. The question then arises as to how useful codes are for nurses and other healthcare professionals working in disasters when faced with overwhelming need and the possibility of hard choices, even to the point of decisions over death or life.

An important issue to consider when examining the question of how codes address the problem of the many and the one, is the issue of language. In Snelling's exploration of the metaethics of nursing codes a distinction is made between descriptive and prescriptive language usage (Snelling, 2016). Examples of descriptive language can be found in the Canadian Nursing Association code, for example *"Nurses provide care directed first and foremost toward the health and well-being of persons receiving care ... "* (CNA 2017, p10), and the Indonesian Nurses Association code of ethics *"Nurses in providing nursing services respect human dignity ... "* (INNA 2015, p2). In the introduction to this chapter, it was suggested that one of the functions of published codes is to define what nursing is about, what are its practices and its underpinning values. Descriptive terms such as those found in the Canadian and Indonesian and other codes can be considered to fulfil this function. By contrast, many codes contain prescriptive language. This language places imperatives on nurses through the use of modal verbs such as 'must' or 'should'. The use of imperative language is clearly seen in the NMC code, each statement opens with the phrase *"To achieve this, you must"* (NMC 2018). In a similar fashion, the Nursing and Midwifery Council of Nigerian prefixes every statement with *"The nurse must"* (NMCN 2012). Alternatively, some codes make use of 'should' or 'shall' rather than 'must' to present the professional duties of nurses; *"You should presume that every client is legally competent ..."* (TNMC 2007, p4), *"The nurse should ... pay special attention to vulnerable groups"* (IMoHME 2011, p5). The use of verbs such as 'must' and 'should' creates duties and obligations for nurses. Further, by employing imperative language of 'must' and 'should', codes make it clear that some duties and obligations are not optional considerations (Snelling 2016). Whilst it is clear that a failure to fulfil a duty is a breach of a non-optional requirement, it is not initially clear as to the status of descriptive terms as outlined above. The Nursing Council of New Zealand address this issue head on:

"While mandatory language such as 'must', 'shall' and 'will' has restricted use throughout this Code, it is important for nurses to understand there is an expectation that they will adhere to these standards."

NCNZ (2012, p1)

Therefore, we can regard the content of all codes, whether or not they contain formal imperative language or not, as placing obligations and duties on nurses. For those working in disasters, a problem arises when these duties cannot be fulfilled.

The professional duties laid out in codes may not be fulfilled in a disaster for two reasons. Firstly, as presented in chapter one, disasters cause damages that remove capital. That is to say, infrastructure, clinical facilities and personnel may be damaged, lost, injured, or killed in a disaster. As such, it may be impossible to offer care that is *"based on the best available evidence and best practice"* (NCNZ 2012, p6). Consider the aftermath of an earthquake such as occurred in Haiti in 2010. In such situations, crush injuries and entrapment can lead to acute renal failure (Partridge, et al., 2012). In such cases, haemodialysis would be considered 'best practice'. However, the ability to provide this best practice is negated by the losses and damages to healthcare infrastructure, in turn weakening, if not outright negating the duty to provide evidence based best practice.

Such reasoning may work well when there is no ability to provide best practice care, but what happens when you are able to provide high quality care to some, but not all? Following the earthquake in Haiti there were in fact facilities available for delivery of haemodialysis, for example those aboard the hospital ship USNS Comfort (Walk, et al., 2013). However, the numbers with crush injuries in need of haemodialysis far out stripped the capacity to deliver this life saving treatment, therefore choices had to be made as to who did or did not receive care that was *"based on the best available evidence and best practice".* For those making this decision, they now find themselves in a position of knowingly denying those in need with the treatment their condition requires. This reality conflicts with imperatives such as *"act in the best interests of people at all times"* (NMC 2018). It is difficult to argue that denying someone access to life saving haemodialysis, not on the grounds of futility but solely on the grounds that someone else is to benefit, is in fact in the best interest of the person denied care and treatment. The situation of those in need of haemodialysis is dramatic, however it reflects the underlying problem of knowingly breaching the professional obligation to provide the best care possible in situations where the best care possible *could* be provided but only at the cost of denying potentially lifesaving care to another also in need.

For healthcare professionals who turn to their code of conduct or ethics to discover what they should, could or must not do, when making hard choices between individuals in need, there seems to be little to guide them. On one side healthcare professionals in disasters are required, or at least

strongly encouraged without exception, to provide the best care possible to the individuals in their care. Yet, healthcare professionals in disasters may be in situations where they can provide a high standard of care to a few, but only at the cost of denying others in equal need the high standard of care they too deserve. Alternatively, healthcare professionals may see the possibility of providing care to many but at a lesser standard than that required by the patient's needs, the requirements of best practice or the requirements of evidence-based care etc., a degraded standard of care as it were. The question is, what if anything, do codes say about these choices?

Silence and exceptionality

On first reading it appears that many codes of conduct are largely silent on the particular issues faced by nurses and other healthcare professionals in disasters. Codes take as their ground position the belief that the focus of nurses and other healthcare professionals should be the well-being of a patient or an individual who uses healthcare services. The American Nurses Association captures this normal times ground position:

> *"Clinicians are educated, socialized, and supported for a focus on the individual patient or client seeking care and generally make decisions about laboratory or other diagnostic tests, medication, hygiene, and activity needs, pain management or other interventions with only that individual (or the individual and family unit) in mind."*

ANA (2008, p10)

However, as we have seen, in disasters it becomes increasingly difficult to hold in mind *"a focus on the individual patient".* In a disaster, decisions about diagnostic tests, medication, nursing care for an individual become restricted by the rival claims of other individuals for the same diagnostic tests, medications, nursing care etc. It is as if disasters weaken the normal-times clear distinction between discrete individuals and their care, thus allowing the care of different individuals to interact more closely than in normal time. Yet, codes do not admit of the possibility of rival claims to limited resources, or the possibility that care to one can only be achieved at the expense of another. So, when we consider what do codes say about the difficulties faced by healthcare professionals in nurses, one answer is nothing; codes are silent on the difficulties that healthcare professionals face in delivering care in disaster contexts. This silence tells us that many codes of conduct and ethics produced for normal times practice run out of content and relevance in times of disasters. However, we should not be too quick to blame codes for running out of content and relevance in disasters when we remember that disasters are not normal times, disasters are exceptional.

It can be suggested that the fact that codes created for normal times run out of content and relevance not so much as a failure of the code but as a signal of the exceptionality of a disaster. When discussing the exceptionality of disasters in chapter one, two points of exceptionality were noted.

Firstly, disasters are statistically exceptional – rare events that interpose themselves into everyday life. Secondly, disasters are exceptions to beliefs about how the world should be. As such disasters can be seen as episodes wherein the whole ordering of the world, how it is, how it should be, how it might be and the measures needed to rebuild a sense of meaning collapse (Weick, 1993). If we accept that some disasters are associated with a radical undermining of normality, it should not come as a surprise that codes of conduct and ethics drawn up to address professional practice in normal times run out of content and relevance in the exceptional circumstances found within disasters. A further, stronger claim could be made that it would be unreasonable to expect normal times codes to address the difficulties faced in exceptional circumstances when many things are no longer normal. Therefore, when assessing how useful codes of conduct and ethics are for the healthcare professional in a disaster context, we can arrive at an initial response; codes of conduct are largely silent on the particular difficulties faced by nurses and other healthcare professionals in disasters. Yet, the failure of codes to address the particular difficulties faced by healthcare professionals in disasters should not be seen as a failure but as a signal of the exceptional nature of disasters. There are two responses to this conclusion, one centres on language, the other on exceptionality.

Firstly, the language used in codes. As detailed above, the codes reviewed make frequent use of imperative language such as 'must', 'will' or 'shall' and 'at all times'. Such language is clear and unambiguous and gives little room for manoeuvre for nurses and other healthcare professionals. We have already seen that such clear and unambiguous language presents difficulties for those working in disasters when faced with the hard decisions they face in disasters, for example choosing to deny someone the best care possible in order to benefit another. An apologist for normal-times codes could draw on the exceptionality of disasters and claim that normal-times codes were never intended to address the problems faced in disasters, hence such codes simply do not apply in disasters. Working from this position, a claim can be made that nurses and others working in disasters when faced with imperatives such as *"act in the best interests of people at all times"* (NMC, 2018, sec4) or *"ensure that no action or omission on her* [nurse's] *part … is harmful to the interests, condition, safety and well-being of a patient/client"* (TNMC, 2007, p3)*,* should take them to be less binding than the wording implies. Such a claim in effect creates room for manoeuvre within what are seemingly very constraining professional obligations. Such an apology may seem a reasonable response to the demandingness of tightly worded professional duties. However, let us consider the claim that certain prescribed normal-times duties fall away in disasters from the perspective of healthcare professionals who work within a disaster context.

Let us return to the consideration of the two patients in need of life saving haemodialysis in the aftermath of an earthquake where only one is able to receive this life saving treatment. We can add in Paul as a nurse working in the earthquake. Paul has the responsibility of deciding which of the two

patients receives haemodialysis. Paul is faced with a dilemma of the structure 'A or B, but not A and B', as outlined in chapter two. Faced with this dilemma, Paul recalls his professional code for guidance. His code contains imperatives specifying he is to provide the best care possible to individuals and serve their best interests at all times. However, Paul also doubts that the strict professional obligations set out in his code apply in the exceptional circumstances of a disaster. Paul now finds his dilemma about who is to benefit from haemodialysis compounded by uncertainty as to the status of his code of conduct. Paul now has to decide whether 'must' really means 'must' and whether 'at all times' really means 'at all times'. Thus, we can appreciate that the claim that certain aspects of codes simply do not apply in disasters is unhelpful here, it introduces even more uncertainty into the situation at just the point the nurse, Paul, is seeking guidance.

The case of who to benefit from haemodialysis concerns the professional obligation to provide high quality care to those in need, however we can consider other professional obligations at play in disasters, such as the obligation to gain valid consent from those we care for and treat. If we apply the claim that certain professional imperatives lose their force in disasters, then questions arise as to, for example, whether or not we are happy for a surgeon to undertake limb amputations without discussing alternative treatment options with patients, or whether or not are we happy to see a mass child immunisation programme initiated without any explanation being given to parents of the risks immunisation presents to their child. Going further, consider recent public health protection measures drawn up in response to the SARS-CoV-2 pandemic that began in early 2019 (measures such as The Health Protection (Coronavirus Restrictions) (No.5) (Wales) Regulations 2020 (Government of Wales, 2020)) that placed a requirement on the population of Wales to stay at home, that prohibited interaction between separate households, and that imposed self-isolation on those diagnosed with SARS-CoV-2 and their close contacts. No room was left for personal choice or consent to such measures, they were imposed with the threat of legal action if breached. Whilst we can assert that the need for consent falls away in the exceptionality of a disaster, we are still left with questions of how to respond to individuals who do not consent to constraints on their freedom and whose actions run counter to public health protection measures. With these concerns in mind, the claim that certain professional duties that are held as absolutes in normal times may not apply in the exceptional circumstances of a disaster, is not necessarily helpful for those working in disasters as such a claim can be seen introduce more questions than it resolves.

As a reply to scepticism around the claim that certain imperative obligations just do not apply in disasters, apologists for this claim may reply that it would over complicated codes designed for normal times practice to repeatedly insert riders and caveats to cover the exceptionalities found within disasters. This is a fair point, and indeed it would make cumbersome reading to continually stumble across phrases such as 'except in situations of … , where the nurse should/may … '. For those

proposing that the inclusion of disaster caveats would make codes cumbersome can also point to the statistically unlikely nature of disasters; why complicate matters for events that most nurses will never encounter? These two counter arguments, i.e. making codes cumbersome and addressing unlikely exceptionality, can in turn be countered.

Firstly, we have already seen how some codes treat the *prima facie* obligations towards confidentiality and consent. Many codes do in fact include caveats that specify the circumstances under which the professional obligations to uphold confidentiality and obtain consent can be overridden. Introducing such caveats does not dilute the underlying message of the code, and primacy of duties towards confidentiality and consent. Further, the inclusion of these caveats around confidentiality and consent do not make the code cumbersome of difficult to read and understand.

The argument that there is no need to overburden codes with caveats that refer to rare exceptional events is fair. However, one point needs to be highlighted, statistically unlikely and exceptional does not equate to impossible. Take as an example the SARS-CoV-2 pandemic that affected in the United Kingdom from early 2019 onwards. This event is certainly unprecedented in the last one hundred years since the Spanish influenza pandemic of 1918. By these lights, the current pandemic is exceptional and statistically rare. However, the outbreak of an infectious airborne respiratory infection leading to multiple fatalities and mass morbidity has not been considered to be impossible. There is clear evidence that the possibility of a large-scale and high-impact infectious disease outbreak has occupied the thinking of the United Kingdom Government for the last decade. Pandemic influenza has appeared on multiple national risk registers produced by the United Kingdom government. In the 2010 United Kingdom risk register, pandemic human diseases were identified as the greatest hazard facing the United Kingdom (Great Britain. Cabinet Office, 2010). Similarly, in 2017 edition of the same publication, pandemic influenza was again identified as the most likely and most impactful risk faced by the United Kingdom (Great Britain. Cabinet Office, 2017). Further, the 2017 edition of the risk register opens with a preamble addressing how risks have changed and what risks are emerging and growing in significance; the first issue addressed in this preamble is emerging infectious diseases. These points around influenza and emerging infectious diseases are made to reinforce the notion that exceptional events such as the current pandemic of SARS-CoV-2 are neither inconceivable nor impossible. With these points in mind, we can return to the argument that the rarity of disasters provides a reason not to clutter up codes for normal times practice with caveats tied to the exceptional circumstances of disasters. In response it can be argued that even though rare; disasters are not impossible and a principle of caution in the face of danger provides a ground for the inclusion of disaster specific caveats in codes of practice designed for normal times. Excluding disaster specific caveats on the grounds of rarity and exceptionality is similar to the homeowner who does not take out

home insurance because they do not believe they will be burgled or flooded; whilst their beliefs may be well grounded, bad things still happen.

Reconsidering the issue of personal welfare

In chapter two, the dual identity of nurses and other healthcare professionals in disasters was presented. At one and the same time, healthcare professionals in a disaster are both victims of that disaster and an aid provider in that same disaster. This creates uncertainty as to what extent healthcare professionals should put at risk their own welfare and that of their family in the face of risk. As presented above, some codes do provide licence to healthcare professionals to consider their own welfare and to remove themselves from care provision in order to ensure their own welfare. It was also noted that such licence is presented as necessary for the continued provision of safe and effective care rather than solely for the benefit of the individual nurse or healthcare professional. However, beyond this licence for self-care in order to remain safe and effective, there is little else in codes of relevance. Some codes do highlight the need to look to personal safety when responding in an emergency (CNA, 2017; NCNZ, 2012; NMC, 2018), but such statements are rare. Even in codes that explicitly address disasters, such as the Canadian Nurses Association code or the code produced by the Iranian Ministry of Health (CNA, 2017; IMoHME 2011), the possible tension between a professional duty to respond to disasters and the personal harm such a response may lead to is not recognised. As has already been discussed, the silence of codes on specific issues encountered in disasters may indicate no more than the fact that codes run out of content and relevance in disasters. If this is the case, then it could be argued that the decision as to how to balance competing non-professional obligations to self, family, neighbours etc. lies solely with the individual healthcare professional. However, there is a presumption that the professional obligations to offer service is pervasive and enduring, even in a disaster. In none of the codes reviewed is it found that being a nurse or other healthcare professional in disaster and being fearful for the safety and well-being of self and family, provides a reason not to fulfil professional obligations to continue to provide service. In codes, being the victim of a disaster does not appear to extinguish the primary professional obligation to make the care of others one's primary concern. Indeed, some codes go further and place specific obligations on healthcare professionals to provide service in emergencies and disasters. In the 2008 edition of the NMC's code, section seventeen talks about acting in someone's best interests *"if you have provided care in an emergency"* (Nursing and Midwifery Council , 2008), yet by 2018 the implied optionality of 'if' had been removed. The current edition of The Code contains statement fifteen *"Always offer help if an emergency arises in your practice setting or anywhere else"* (NMC 2018, p14). It is difficult not to see this statement as anything but a pervasive obligation that appears to endure, whether or not one is in the workplace, on duty, at home or on the street. As worded, it is also difficult to see where, or even if, this obligation ever runs out.

In response to the codified obligation to respond to disasters, the arguments presented above can be reconstructed. Firstly, a claim can be made that *prima facie* professional obligations to offer service to others as laid out in codes simply do not apply in disasters. The counter argument would be that this position creates uncertainty at just the point when a healthcare professional is seeking guidance as to whether or not their professional obligations require them to risk their life, welfare and well-being, or the life, welfare, and well-being of their family. To address this uncertainty, caveats or disaster-specific advice could be introduced into codes. However, in parallel to the above discussion, objections could be raised that this would create seemingly unnecessary clutter into codes by introducing distractions that only apply rarely. In response to these objections, one can point to the Canadian Nurses Association code of ethics that has a short, clearly written exposition of the ethical considerations for nurses in disasters. this exposition runs to little more than two pages and includes a consideration of *"unreasonable burden"*, reciprocal duties of employers towards nurses to *"maximally minimize risks"*, and the need to consider in advance of disasters, how competing obligations can be reconciled (CNA 2017, pp38-40). Some may baulk at the inclusion of such an exposition, being resistant to the inclusion of unnecessary clutter that addresses rare exceptional circumstances. And we can have some sympathy for this resistance. A more reasonable approach can be found in the American Nurses Association's guidelines for adapting standards of care under extreme conditions (ANA 2008). Whilst the whole guideline runs to 24 pages, the tension between professional duties and duties to self and other is handled with this descriptive phrase; *"Health professionals will weigh their duty to provide care with obligations to their own health and that of their families"* (ANA, 2008, p9). It is difficult to see how a statement such as this can be seen to add unnecessary clutter to a code, or dilute the authority of the professional obligation to make the care of people your first concern.

These elements of the CNA and ANA codes are not presented here as possible answers to the difficulties healthcare professionals face balancing a duty to provide care with obligations to self and other, but rather to illustrate how codes written for normal times practice can be expanded to address the particular problems faced in disasters. It can be suggested that the inclusion of even quite sparse notes, such as that from the ANA, will mitigate the problem of codes running out of relevance in disasters. Without such mitigation there are risks that healthcare professionals who turn to their code for guidance when in a disaster will either be faced with silence, or ambiguity, or imperatives that create unreasonable burdens for them. As things stand, and drawing on the codes reviewed, it is difficult to avoid a conclusion that the risks of silence, or ambiguity, or unreasonable burden in the face of disasters are in fact the current state of the majority of codes of professional conduct and ethics. Further, whilst we can recognise that disasters are exceptional, disasters are not impossible and there is much to be gained and little to be lost by including disaster specific advice and caveats in codes designed for normal times.

Conclusion

The purpose of this chapter has been to examine the place codes of professional conduct and ethics can play as an ethical resource that those in a disaster can turn to when faced with the exceptional difficulties that arise in disasters. Whilst many codes fail to explicitly address the unique difficulties faced in disasters, some do contain content that is applicable to the situation of those healthcare professionals who find themselves in a disaster. However, the imperative language employed in some codes can be seen to create requirements that either cannot be met, or can only be met at great cost to the healthcare professional. Whilst some may be disappointed at the failure of codes to address the difficulties healthcare professionals in disasters face, it must be recognised that the codes reviewed were drawn up to reflect normal times practice. It can be suggested that it is unreasonable to expect codes drawn up to address normal times practice to also address the exceptionalities found in disasters.

For those healthcare professionals who turn to their codes when faced with ethical difficulties encountered in disasters, the continued absence of disaster specific guidance is at least unhelpful, whilst normal times imperatives create unreasonable demands and burdens. With the weaknesses of codes in mind, one question that can be raised is to whether there are any further ethical resources that healthcare professionals in disasters can draw on for guidance. At this point it might be worth considering a note added by the NMC to their webpage. This note was added in 2020 in response to the SARS-CoV-2 pandemic occurring at that time; it reads:

> *"We* [the NMC] *know this is an extremely challenging time for the professionals on our register.*
>
> *Our Code and Standards continue to support you by providing key principles you should follow, alongside the ethical frameworks that normally guide your practice"*
>
> (Nursing and Midwifery Council, 2020)

Whilst helpful, this note instantly raises the question as to what are the ethical frameworks (other than specific codes of professional ethics and conduct) that normally guide practice. Leaving aside the highly general principles mentioned earlier, three responses to this question can be proposed. Firstly, healthcare professionals could call on ethical frameworks grounded in established religions, and indeed such recourse can be seen in the codes of ethics and conduct produced by the Iranian Ministry of Health and the Indonesian National Nurses Association make explicit reference to religious ideals (Indonesian National Nurses Association, 2015; Iranian Ministry of Health and Medical Education, 2011). However, relying on ethical frameworks grounded in religious beliefs systems is problematic as those in need of care and those providing healthcare services may not adhere to a common, or in fact any, religious belief system. As a result, reliance on religious belief

systems may be at best very localised in their appeal and application, and at worst create conflict between competing belief systems.

A second response to the question of ethical frameworks that guide normal guide practice can be seen to be a call upon a principle of humanity as outlined above. Such a call can be related to Kantian arguments in favour of the unique and inestimable value of the person as an end in themselves and a duty to respect the person as an end in their own right (Edwards, 2009). Such a response can be seen to find expression in ethical frameworks that emphasise the primacy of caring that sees concern for others as the mainspring of healthcare practice (Benner & Wrubel, 1989; Roach, 2002). Whilst it is possible to accept the primacy of caring about others as a universal motivation that drives professional healthcare practice, doubt can be voiced as to practical usefulness of relying solely on caring for and about people in need in the press of a disaster. To put it crudely, relying solely on a principle of care one can imagine the following conversation:

Registered nurse - "Sister, what am I to do? The emergency department is full of sick and injured earthquake victims, intensive care is not functioning and there are no surgeons to perform limb-saving surgery, I have people dying of sepsis in need of antibiotics but no pharmacy and obstetric emergencies with no specialist care. What should I do?"

Sister - "Care"

On the one hand, such a response can be seen as deeply profound, yet the response can also be seen to lack practical application in such dire situations. It can be suggested that for those who find themselves in a disaster who have to call on ethical frameworks from everyday practice to meet the challenges faced in disasters, relying on a duty of caring for and about people may prove to be insufficient.

The third response to the question of what ethical frameworks that guide everyday practice can be called on in response to the challenges encountered in disasters is to call on a set of principles that have greater specificity than broad-ranging principles such as respecting humanity and caring for and about person just because they are persons. For Edwards, such principles sit mid-way between specific rules such as a rule of truthfulness and honesty, respecting personal privacy and confidentiality and promise-keeping, and more abstract principles such as respecting the humanity of each person (Edwards, 2009, p. 20). Beauchamp and Childress present four such principles, respecting autonomy, justice, doing good (beneficence) and not harming (nonmaleficence), and these have been presented as four fundamental principles of biomedical ethics (Beauchamp & Childress, 2019; Rauprich & Vollman, 2011). The principle of autonomy has already been raised in respect to the possibility of coercion in disaster response measures, specifically health protection measures that

impose restrictions on individuals. Consent also appears as an area of difficulty in emergency response settings, especially those characterised by large numbers of disaster victims in pressing need, and these issues are explored above (see p 72).

The principle of justice can be seen to have great import for those who work in disasters as many of the ethical dilemmas and uncertainties they face turn on the distribution of resources and the balancing of competing needs. Indeed, one could frame the whole discussion regarding ethical problems in disasters as questions of justice, what victims and those who provide aid deserve and how scarce resources should be distributed. However, it can be suggested that justice turns on the question of the distribution of benefits, harms and burdens. As such, and understanding of what benefit, harm and burden look like can be seen to be prior to an understanding of how benefits, harms and burdens should be distributed[14]. By accepting the priority of an understanding of benefits, harms and burdens we can, by extension, accept the priority of the principles of 'do good' and 'do not harm 'as these two principles give form to what benefit, harm and burden may look like in healthcare practice and in disasters. Therefore, the two principles of 'do good' (beneficence) and 'do not harm' (nonmaleficence) are taken as providing an ethical framework that can guide practice even in the exceptional circumstances that arise in disasters. The applicability of these two principles is further underscored by their universality (Gillon, 1994). The universal nature of these principles implies that they can be effectively applied even in the exceptional circumstances that arise in disasters. The following chapter, chapter four, will take as its focus the principle of *do no harm* and explore how this principle works out in disaster contexts. Chapter five will explore what the principle of *do good* looks like in disasters. Whilst the explicit focus of the following chapters is on these two principles, a common thread of justice as what people deserve and how benefits and harms are to be distributed will be maintained.

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[14] Such arguments that define the good or goods prior to how they are to be distributed can be found in the works of Rawls for example (Rawls, 1999, pp. 52-56)

Chapter 4: Harm in disaster healthcare

Introduction

Chapter one of this thesis was dedicated to the description and exploration of certain features that set some events out as disasters. Disasters can be seen as exceptional events that create large scale pressing human need through the loss of different forms of capital through which survival, welfare and well-being are secured. Disasters can also be seen to confound people's understanding of how the world works, challenging established beliefs, values, and ways of being. Chapter two explored the lived experiences of healthcare workers who find themselves in a disaster. For those who find themselves in disasters, disasters create novel challenges often expressed through uncertainty as to how they ought to respond to the overwhelming need they face, often with a restricted capacity to respond. Healthcare professionals are also faced by challenges that reflect their dual position as both agent for providing aid and disaster victim. These challenges are experienced as real moral dilemmas that arise at the interface of competing but irreconcilable ethical principles, or moral uncertainty where uncertainty exists as to how to realise an ethical principle. In response to these difficulties, it was suggested that healthcare professionals could call upon ethical resources to help them resolve the difficulties they experience. Chapter two concluded with a suggestion that it is not unreasonable to expect healthcare professionals to be able to turn to their code of conduct or ethics to help them work through the dilemmas and ambiguities they encounter in disaster response work.

Chapter three provided a review of a range of published codes of professional conduct and ethics drawn up to address normal times healthcare practice, with a strong emphasis on nursing practice. Across all codes reviewed, there is a general failure to specifically address the difficulties faced by nurses in disasters. Some codes do contain elements that have some relevance to practice to disasters, specifically issues of confidentiality, consent, and personal welfare. Yet it is unclear as to whether disaster contexts were in the mind of the authors of codes when they discuss issues of consent in emergencies, breach of confidentiality for public good, or the need of nurses to look to their own welfare. Upon review, it becomes clear that many codes make use of imperative language. In disasters, these imperatives create obligations that can only be met at the cost of care to others, or place unreasonable burdens on the welfare and well-being of nurses and other healthcare professionals. A conclusion was presented that often codes run out of content and relevance in the face of disasters. Chapter three ended with a suggestion that nurses and other healthcare professionals can make use of other ethical frameworks to guide their practice in disasters. Two universal principles were presented that could serve as guides for those working in disasters, *do no harm* and *do good*. The focus of this chapter will be the principle of *do no harm* and how it applies in disaster contexts.

The chapter will begin with the place of the duty to do no harm in healthcare ethics and discussion of the standard model of not-harming that sees not-harming as a strict negative duty. This will be followed by an exploration of what harm is that draws on the arguments and assertions of Joel Feinberg (Feinberg, 1984) and Shelly Kagan (Kagan, 1989)[15]. Feinberg's and Kagan's arguments and conclusions will be applied to the position of healthcare professionals who find themselves in a disaster. An analysis will be provided that indicates the opportunities for occasioning harm in disasters are more numerous than the standard model of harming would suggest. It will be suggested that harming in disaster healthcare approaches a level of ubiquity. The chapter will conclude with a consideration of the usefulness of the injunction *do no harm* for the healthcare professional in a disaster.

"First, do no harm"

In Western thought, the writings of the Greek physician Hippocrates (460 BCE-375 BCE (Smith, 2020)) are seen by many as the foundation of organised thinking about medicine. The works of the Hippocrates cover a broad range of related interests and cover case studies, clinical instruction, methods of scientific enquiry and theories of causation in medicine. The Hippocratic writings also lay out fundamental elements of the professional conduct and ethical principles that physicians should follow. Many of these precepts were brought together in an oath to be taken by physicians, the Hippocratic Oath. This ancient oath has been revised and restructured since its initial formulation to make it better fitted to current healthcare practice (Berdine, 2015). Concerning the principle of not harming, Berdine notes that this principle was not included in the original formulation of the oath but arose in other writings (Berdine, 2015). The inclusion in the oath of a clear duty not to harm did not appear until the 17th century in the writings of Thomas Sydenham (Berdine, 2015). Since that time, fewer and fewer healthcare professionals have sworn the oath verbatim at the point of qualification or graduation. However, the central maxim of 'first do no harm', as the principle of non-maleficence, now exists as a foundational ethical principle for healthcare professionals (Beauchamp & Childress, 2019; Gillon, 1994). In addition to being foundational, it has also been argued that the principle of not harming is universal. As a universal moral obligation, not harming is applicable across different clinical situations and in different cultural milieu (Dawson & Garrad, 2006).

For those concerned with an ethical principle that speaks to the problems encountered by healthcare professionals in the exceptional circumstances found within a disaster, a universally applicable principle such as *do no harm*, has obvious appeal. There are a range of different philosophical justifications for a principle of not harming, some flow from a recognition of the unique

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[15] At times Feinberg and Kagan use certain aspects of language in very specific ways in their writing. When terms are used in a specific manner, these occasions will be highlighted.

value of a person as an end in themselves and possessed of rights, including the right not to be interfered with (Bieri, 2017), whilst others flow from an understanding of what we owe each other under the realities of social living (Rawls, 1999; Scanlon, 1998). However, even though there may be disagreement as to the underpinning justification for a principle of not harming, we can accept that this principle is a foundational norm of professional healthcare practice.

Whilst we can appreciate the appeal of a duty not to harm, what may be less obvious is the primacy of the principle; the *first* of first do no harm. One way of understanding different duties is to see some duties as positive duties, whilst others are negative duties. Positive duties place a requirement to undertake a course of action in certain circumstances, or to respond in a certain way to events and possibilities. In contrast, negative duties require no action, or merely inaction, in certain circumstances or in the face of certain possibilities. Thus, positive duties require action and negative duties require actors to refrain from actions.

To illustrate this difference between positive and negative duties, we can return to Nadine the trauma surgeon that was introduced in chapter two. We supposed that Nadine was in New York and witnessed the collapse of the Twin Towers on September 11th, 2001. In chapter two, the following were presented as options that face Nadine; she could rush forward to treat the injured, or head home to her husband because she knows her husband's father was working in one of the Twin Towers today. These two actions can be seen as actions driven by positive duties, that is to say the professional duty to render aid to the injured and the duty towards a spouse at a time of difficulty. In this situation we can also identify negative duties, that is to say actions that Nadine should refrain from doing, for example Nadine should refrain from taking close up photographs of the dead and injured. If we consider the options open to Nadine, refraining from taking close up photographs is relatively cost free to Nadine, it requires no more than her camera or mobile 'phone remains in her pocket. However, the positive duties to render aid or look to the welfare of a loved one, require Nadine to act. Further these acts carry a cost or burden. Rushing forward carries the burden of personal risk and abandonment of her husband in his time of need. In this way an asymmetry of cost between negative and positive duties emerges.

A standard model of positive and negative duties sees positive duties as costly and demanding on people, whilst negative duties carry minimal costs (Blumenfeld, 1981). A consequence of this standard model is that negative duties are seen as more stringent than positive duties, on the grounds that to refrain incurs no cost. By contrast, positive duties 'to do' introduce calls on a person's time, property, well-being, and welfare, and constrain a person's choice and autonomy (Lichtenberg, 2010). As such, positive duties are held to be less stringent, in the standard model at least.

Returning to Nadine the surgeon, and applying the standard model, we would say that the obligation not to take close up photographs of the dead and injured is strict, that is to say allowing for no exceptions (Blumenfeld, 1981). However, Nadine's duty to provide care is tempered by other calls on her time (giving attention to her possibly-bereaved husband), and a duty to personal safety and caution in the face of danger. In this way, the positive duty to provide aid is less stringent and admits of more exceptions. Thus, the negative duties on Nadine are more binding and stringent than the positive duties.

If we apply the standard model of duties to the principle of not harming, we can see that not harming is a negative duty that merely requires healthcare professionals to refrain from acts that cause injury or harm. As a negative duty, the duty not to harm is more stringent than other duties. Also, not harming is seen as easy to achieve, in simplistic terms it involves no more than sitting on your hands and keeping your mouth shut. Within the standard model, the relative ease of not harming combines with the stringency of negative duties to give primacy to the principle of not harming. In this way, the principle of *do no harm* acquires the primacy of *first, do no harm.* All seems well, yet some may harbour doubts over the apparent asymmetry of negative and positive duties as portrayed within the standard model that turns on the ease of not harming. These doubts are well founded and will be discussed at length below.

From the above discussion we can accept that not harming is a fundamental principle of professional healthcare practice. As a principle, it reflects a strict negative duty to refrain from acts that cause injury and harm. This principle achieves primacy from the stringency of the obligation that in turn is related to the ease with which non-harming can be achieved. These claims flow from a standard model that presents positive and negative duties as asymmetrical in their stringency. Accepting the primacy of not harming, we need to consider further what harm is and how it can be occasioned.

The nature of harm

The nature of harm may seem a strange issue to dedicate an analysis to and many may claim that we all have a clear understanding of harm. However, whilst some cases of harming are easily understood – burning down someone's home, or breaking a person's leg. Other forms of harm are less easy to understand, for example the imposition of harmful life-altering side-effects of cancer chemotherapy or radiotherapy. Within disasters, there is a further problem in the unease felt by healthcare workers that somehow, despite doing good things, they have been party to harming (deWaal, 2010). With these uncertainties in mind, a more full exploration of harm is needed. The following analysis centres on harm as frustration of the pursuit and realisation of interests and draws heavily on the work of Joel Feinberg and Shelly Kagan (Feinberg, 1984; Kagan, 1989).

Feinberg's view of interests and harm

Healthcare practice is concerned with persons. As a consequence, even though there are many different living and non-living objects and systems that can be harmed in different ways (e.g., animals, plants, ecosystems, financial networks etc.), in healthcare we are concerned with not harming persons. Further, healthcare in disasters takes as its focus the health, welfare, and well-being of human beings, thus we can constrain our analysis to the nature of harm to human persons, their interests and how they can be harmed.

The most concrete starting point for an analysis of human persons is the reality of their biological existence as a member of the species *Homo sapiens.* Therefore, for a person to continue, there is a requirement for some bare minima to sustain life (Doyal & Gough, 1984). These bare minima include air, water, the intake of foodstuffs to provide energy and nutrients, and protection from the environment. As biological beings, human beings have an interest in securing access to these bare minima in order to continue to survive. When using the term 'interest in', we refer to those conditions that a person has reason to see realised in so far as their health and well-being are tied to the realisation of these conditions. To have an interest in is synonymous is having a stake in the fulfilment of conditions and outcomes, having an interest in the realisation of an end is motivating and life organising. This last point distinguished interests from passing wants and desires that come and go.

At a basic level, human beings as biological entities have an interest in the bare minima needed for continued survival. Deprivation of these bare minima sooner or later leads to death. Indeed, some survival specialists talk of a survival "rule of 3s", three minutes without air, three hours without shelter, three days without water, and three weeks without food (Towell, 2011). Whilst lacking any scientific basis, such a rule does underline the vital necessity of air, shelter, water, and food for continued survival. Yet biological survival is only a starting point, or essential foundation, for being a person whose life is personally fulfilling.

Not only are persons biological entities, they are also possessed of certain cognitive abilities. Baumann summarises these cognitive abilities as thought, intentionality, rationality, and language (Baumann, 2007). Yet we also count as persons those human beings whose rationality is disturbed by psychosis, phobia, and obsessions (Hughes, 2001; McGee, 2013). Thus, a list of cognitive abilities alone is not enough to identify what it means to be a person, rather than an instance of the biological *Homo sapiens*.

Including certain cognitive capacities with being a living, biological entity increases the clarity of definition of a person, but does not complete it. For completion, defining features of self-

consciousness and an awareness of self as different from others and different from the world, critical self-evaluation and the ability to reflect on our desires and have attitudes towards our desires (first and second order desires (Frankfurt, 1971)). A person can consider who they have been, who they are and who they can be in the future; a person is seen as able to organise how their life goes, both now and in the future, and to organise their life towards ends they set for themselves. A quote from Isaiah Berlin captures the conception of a person as a being who is free to organise how their life goes:

> *"I wish to be the instrument of my own, not of other men's, acts of will. I wish to be a subject, not an object; to be moved by reasons, by conscious purposes, which are my own, not by causes which affect me, as it were, from outside. I wish to be somebody, not nobody; a doer – deciding, not being decided for, self-directed and not acted upon by external nature or by other men as if I were a thing, or an animal, or a slave incapable of playing a human role, that is, of conceiving goals and policies of my own and realising them."*

(Berlin, 2002, p. 178)

Berlin's words reinforce the central place that reason, subjectivity, and self-directedness have in distinguishing a person. Berlin's position is echoed in Doyal and Goughs theory of human needs which identify autonomy as an essential need of the individual alongside their survival needs (Doyal & Gough, 1984).

The quote from Berlin above points to the role the self-authorship of personal goals plays in his views of the person as an autonomous agent. Both Berlin (2002) and Feinberg (1984) argue that a fundamental aspect of being a person is being able to conceive of, pursue, and realise projects and endeavours that reflect the hopes, desires, interests, and aspirations of the person (Feinberg, 1984, p. 37). Feinberg describes such objectives as more ultimate ends or objectives. Feinberg also notes how such objectives can become an organising principle around which a person may shape their life, giving meaning to their endeavours. For Feinberg, these endeavours and more-ultimate objectives are the constituents of personal well-being and a make a person's life go better.

In order to pursue and realise more ultimate objectives and well-being interests, biological survival is a prerequisite. Further, in order to realise our more ultimate objectives, projects and aspirations, a person must be free to pursue these projects and have access to, and control over certain material and economic resources. Hence, we can argue that people have an interest in securing the means to survival and access and control of those resources needed to pursue and realise those more ultimate objectives that are the constituents of well-being. Feinberg describes these foundational interests as welfare interests:

"Our interests in welfare ... is an interest in achieving and maintaining that minimum level of physical and mental health, material resources, economic assets, and political liberty that is necessary if we are to have any chance at all of achieving our higher good or well-being"

(Feinberg, 1984, p. 57)

From Feinberg we can identify both welfare interests and well-being interests. In the opening section to this discussion of harm, it was claimed that harm can be seen as frustration of the pursuit and realisation of interests. By considering welfare interests and well-being interests, we can develop a wider understanding of the various ways a person may be harmed. That is to say, people are harmed when their pursuit and realisation of their welfare and well-being interests are frustrated. At this point it is worth noting two points that Feinberg raises in his analysis of welfare and well-being interests.

Firstly, Feinberg asserts that welfare interests are instrumental, that is to say they are pursued and realised not for their own sake but 'in-order-to … '. Thus, someone may have an interest in staying healthy and strong and have interest in access to economic resources and land, in order to build their dream home with their own hands. In this way, the welfare interests of health, vitality, access and control of resources are pursued so as to allow the fulfilment of more aspirational and ultimate objectives (building your own home) that in turn reflect, and contribute to, a person's well-being. In this way, the pursuit and realisation of welfare and well-being interests are organised by the pursuit of a more ultimate objective. The significance for those providing aid in disasters is clear; there is no hope of human well-being without securing the welfare interests of disaster victims. Further, any action that frustrates the realisation of welfare interests not only jeopardises the survival of disaster victims, but also jeopardises the well-being that is founded on the realisation of essential welfare interests.

Secondly, Feinberg asserts that welfare interests do not cross compensate. That is to say, a lack in a welfare interest cannot be compensated for by an excess in another. So being deprived of safe drinking water cannot be compensated for by provision of shelter, an absence of food cannot be compensated for by an overabundance of drinking water. In this way, welfare interests can be seen as basic and irreducible. The inability of welfare interests to cross compensate will be returned to for a more detailed explanation when considering doing good in disasters (see chapter five).

By contrast, compensation is possible between more ultimate objectives, goals, and aspirations. Thus, if I have a life organising endeavour to become a professional football player and that endeavour is curtailed by a serious injury, I can take up other pursuits and projects to compensate for the failure of my plan to become a professional football player, for example football coaching or sports punditry. In this way I can still realise my personal well-being, but through different means than originally conceived.

Upon reading Feinberg, there is a great emphasis on what the person does to realise their well-being through the pursuit of their own goals, objectives, and aspirations. One could criticise Feinberg for adopting a very egocentric view of welfare. However, when considering the experience of people in disasters we know that some people are strongly motivated by what is best for themselves, whilst others are motivated by the welfare of others (family, neighbours, colleagues). Kagan offers an extension and balance to the egocentric views of welfare interests present in Feinberg's writing. For Kagan, interests are not only what I want for myself, but also what I want to see for those I care for, or who depend on me:

> "all of those things in which I take a special interest and which, as a result, I may want to favour ...
>
> ... may include the well-being of my family or friends, as well as various impersonal goals that I support, which may have little or no connection to my own individual welfare."

(Kagan, 1989, p. 3)

By considering a person as not only a biological entity but also as a subject who is able to order how their life goes, we can expand on the idea of interests. A person has interest in securing the bare minima for survival along with the minima needed to pursue and realise those objectives, goals, and projects they set themselves. These minimal interests are the person's welfare interests that are not pursued for their own ends but rather, pursued in order to further the realisation of those more ultimate objectives a person sets for themselves. Further, we can see how welfare interests are independent of each other: all are required at a minimal level if the person is to survive and have a life that goes well. By contrast, more ultimate objectives and endeavours can be picked up, dropped, or exchanged for other more ultimate objectives and endeavours depending on the situation and opportunities that face a person, and reflecting their changing personal interest and desires. Having spent time considering what a person's interests may be, consideration now needs to be given to the question of interference as harm.

Interference

Both Feinberg and Kagan see harm as being occasioned when a person's pursuit of their interests is interfered with (Feinberg, 1984; Kagan, 1989). When a person is harmed, some of their interests are delayed, obstructed, or frustrated. In other situations of harm, a person's interests are totally defeated or doomed. If the interests frustrated or defeated are a person's welfare interests, then that person's survival is placed in jeopardy. In addition, any frustration or defeat of a welfare interest cannot be compensated for by other interests or excesses. If it is a more ultimate and aspirational interest that is frustrated or defeated, then a person's well-being is put in jeopardy. For harms that

frustrate or defeat well-being interests, there is the possibility that other projects and endeavours can be taken up to allow someone's life to go well. Thus, harm to well-being interests can be seen to be less devastating than the frustration or defeat of a person's welfare interests. Harm to welfare interests is potentially lethal and non-compensatable. Harm to well-being interests has the potential to create misery, but there is the possibility for compensation through the pursuit of alternative well-being interests.

Up to this point harm has been discussed as an interference in a person's pursuit and realisation of their interests without any discussion of the causes of harming. The frustrating, setting-back, or defeating of an interest may arise in a range of contexts. Within disaster contexts we can see how different processes and outcomes hold the potential for causing harm to people. Firstly, impersonal natural processes such as weather or climate phenomena, illness and infection, seismic activity, etc., may directly impact on a person causing harms associated with physical injury or illness. Through such injury and illness, we can see that a victim's welfare interests are setback or obstructed, thus harming the victim of the event. Secondly, the same processes may exercise their harming influence by creating an environment that is, in one or more ways, devoid of the resources required to realise welfare interests. For example, following coastal flooding, agricultural land may be inundated with saltwater rendering it unusable for growing crops. In this way, even though perhaps no one died or was injured in the flooding, people, households, and communities can be said to have been harmed by the flood in so far as it compromises their welfare interests.

Beyond the immediate impact of events on the pursuit of interests, welfare and well-being, large scale human-engineered but impersonal processes and conditions may also impact negatively on interests. Environmental pollution, economic collapse, government corruption, climate change, structural social inequalities and many more factors can impact on a person's ability to fulfil their welfare and well-being interests. Conditions such as these have the potential to directly harm individuals, and also create environments lacking in the resources and opportunities needed to secure survival and the pursuit of more ultimate objectives and endeavours. Large scale processes place in jeopardy the welfare and well-being of individuals, communities, and populations. These large-scale forces and processes are often impersonal in nature as there is no clear line of connection between the action of an individual and the harm caused to another individual.

In addition to natural processes and impersonal large-scale human activities, harming can also arise through interpersonal interactions. This third harming context occurs where both the originator of the harm and the person harmed can be identified. This form of harming involves the invasion by one person into the interests of another (Feinberg, 1984, p. 34). This invasion causes the interests of the victim of the invasion to be frustrated, set-back, or defeated. This approach mirrors the standard model

of harming as set out above that sees harming as those positive acts that intrude into, and interfere with, how a person lives their life. Again, following the standard model, for harm not to occur all that is needed is for a person to refrain from those actions that could interfere with another person's pursuit and realisation of their welfare and well-being interests.

Kagan on harming

When considering one person harming another, we can easily bring to mind images of physical assault, theft or destruction of personal property, injury being inflicted on a victim's loved ones and so on. Yet there seem to be other ways that harm can be occasioned through person-to-person interactions. Beyond cases of direct injury, some may consider actions whereby one person obstructs another person's fulfilment of their interests as harm. For example, a market trader may increase food prices following a flood. This action may not physically take food off the tables of flood-affected households, however such price increases may frustrate the fulfilment of the welfare interests of those with limited financial resources. Consideration also needs to be given to those actions that interrupt the flow of aid between two agents as forms of harm. An example from real life can be found in the actions of a government that block the movement of international aid into a disaster area, as happened in the immediate aftermath of Cyclone Nargis in Myanmar in 2008 (Junk, 2016).

With these points in mind, it now seems that harming may be more complex than at first appears. As a result, presenting not harming as a case of refraining from actions by simply 'sitting on your hands and keeping your mouth shut' may not fully reflect the true complexity of harming. To add clarity to the varied ways one person may harm another, Kagan presents two paired constructs that he sees as capturing the different ways harm can be occasioned. Kagans paired constructs are Do-Allow and Intend-Foresee (Kagan, 1989, p. 83).

Do-allow is used to distinguish between actions which I do and have control over and through which I bring about outcomes, as opposed to those processes and chains of events that I merely allow to unfold. The second paired construct is intend-foresee. For Kagan, intend-foresee centres on the necessity of harm to achieve an end[16]. If harm occurs as an end in itself, or its occurrence is necessary as a means to achieve a further end, then harm is said to be intended. Alternatively, harm may occur as an unwanted, but possibly unavoidable, side effect of an action. In these cases, harm is foreseen and countenanced but not necessary. These two paired constructs can be combined into a grid that captures four different ways harm may arise (see Table 2):

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[16] Here, Kagan has a very specific use of the word *intend* using the term to describe situations where harm is countenanced either as a necessary means to achieve an end, or as an end in itself, see Kagan, p85 (Kagan, 1989)

	Do	Allow
Intend	Doing harm that is intended as a means or an end	Allowing events to unfold where harm is intended as a means or an end
Foresee	Doing actions that give rise to harm that is merely foreseen as an unintended side-effect	Allowing events to unfold where harm is foreseen as an unintended side effect

Table 2 Forms of Harming adapted from Kagan (1989, p. 85)

To illustrate these four basic forms of harming, cases can be drawn up that illustrate some of the ways harm may occur in disaster contexts.

Do-intend

Cases of do-intend involve *purposive acts that occasion deliberate harming* either as an end itself, or as a necessary means to a further end. Consider a mayor of a small town who has seen a disorganised camp of migrants and displaced people spring up on the outskirts of her town. The inhabitants of the camp are fleeing conflict, poverty, and natural disasters. In the first few weeks and months, the mayor through a sense of civic duty and charity, initially tolerates the camp and ensures the town's health services are available to the camp's inhabitants. The mayor is now worried. More and more individuals and families seem to arrive almost daily, improvised schools have opened, and market stalls have been set up; the improvised camp is beginning to look like an established town. In response, the mayor withdraws the migrant's access to the municipal health services and shuts off water supplies to what she now sees as an illegal shanty town. Her purpose is to make living conditions so miserable that people will stop being attracted to the camp, and drive those already resident to move on. In this case, we have two acts of 'doing', firstly denying access to health services, and secondly, turning off the water supply to the camp. The intention of these acts is to interfere with the camp resident's pursuit and realisation of their welfare interests to such an extent as to make their continued habitation of the camp personally intolerable. In this case, the mayor is using harm to achieve an end – moving the migrants on. The occasioning of harm is integral to the success of the mayor's plans, not a mere unintended consequence. In this case, the mayor closing down health and water services illustrate how actions can be taken that occasion harm, where that harm is integral to the success of the endeavour.

Allow-intend

Situations can also arise where I allow actions or outcomes to occur that result in harm, and it is essential for that harm to occur in order to obtain a further end. Consider a patient, in an intensive

care unit (ICU) on a life support machine during an outbreak of a particularly virulent and deadly respiratory infection. This patient is gravely ill, but they have a good prospect of eventual recovery, but only after a lengthy stay in intensive care and a long period of recovery and rehabilitation. The patient is showing signs of pneumonia and renal failure, both of which could be treat, but a decision is made to not treat these conditions. The patient is allowed to die of pneumonia and renal failure. However, those making the decision not to treat also know that the patient's death will release a scarce intensive care bed and life preserving resources for the treatment of another patient. In this case, the natural progression of the disease to work out its inevitable and deadly end is allowed. However, the death of the patient is essential for the release of the intensive care bed and resources for use by another patient in need. Thus, harm to the current intensive care patient, their death, is essential for the pursuit of an intention to provide intensive care and treatment to another patient. In this way, even though those withholding treatment and allowing death may regret the outcome, they still intend the patient's death in a Kagan-specified way.

In the above case, some may wonder if all that was done was in fact merely allowing a death to occur, after all that death could have been prevented by treating the pneumonia and renal failure. In this situation, the claim I merely allow the patient's death is tied to a distinction highlighted by Kagan. When I find myself in a given situation, I am presented with multiple options of how to react to that situation, even if one of these reactions is to 'sit on my hands and keep my mouth shut'. As a choice is made, consideration is given to the different outcomes that would flow from different reactions in the situation. Kagan uses the notion of different reactions in the face of different possible outcomes to distinguish between doing and allowing:

> *"When I <u>allow</u> harm (or good), there is some alternative reaction - other than my actual one - under which the countenanced outcome would not have occurred. But when I <u>do</u> harm (or good), my reaction itself brings about the countenanced outcome."*

(Kagan, 1989, p. 84) [emphasis in the original]

So, if I find myself in intensive care faced with a seriously ill patient, one reaction I could take is to save the life of the sick intensive care patient by treating their pneumonia and renal failure. If I follow this alternative course of action the countenanced outcome – the death of the patient – would not occur. Similarly, if I countenance the imminent death of a patient unless their pneumonia and renal failure are treated, then my inaction in the face of this knowledge means I allow the death of the intensive care patient. Further, in this situation I have a third alternative reaction that I could make in this situation, I have the option to do acts that brings about the patient's death, for example injecting the patient with a lethal dose of potassium chloride. Under this third alternative, I countenance the patient's death and I bring about that outcome through my action, a case of doing rather than allowing.

Do-foresee

In some situations, I may follow a course of action where I countenance the possibility, or even eventuality, of harm as an outcome of my action, yet the harm I countenance is not a necessary end in itself or a means to achieve a further end. In such situations the harm that occurs is foreseen but not intended. That is to say, the harm that occurs as a result of my actions is not part of my plan to achieve my goal. In this way, foreseen harm that arises from my actions is seen as a side effect of my actions.

As an example of do-foresee, we can consider the risks associated with immunisation. Consider the situation of a nurse working in an immunisation clinic in a post-disaster context, or as part of a health team responding to an infectious disease outbreak. As the nurse administers the intramuscular injections of vaccine, they are aware that some recipients may suffer immediate, and possibly life threatening allergic reactions to the immunisation. I am also aware that a small number of recipients may experience serious complications in the future. I can countenance these harms as outcomes of my actions. However, I do not intend for theses harms to happen. Here, 'intended' is used in a very specific way for harms that are *"countenanced as a means to an end"* (Kagan, 1989, p. 85). In the case of immunisation, the fact that some recipients of the vaccine may be harmed is countenanced as a possible outcome of my actions, yet the harm that may occur is not a necessary steppingstone towards the achievement of my goal.

To illustrate the case of do-foresee more clearly, we can rerun the case of the mayor and her decision to deny access to health services in order to make the life of a group of migrants so miserable that they would move on. A variation of this scenario can be created to illustrate do-foresee harm. In this variation the improvised camp is set up and it begins to attract increasing numbers of displaced and needy victims fleeing conflict, poverty, and natural disasters. As previous, the mayor opens up municipal health services to the migrant population, even going as far as to open a nine-to-five primary healthcare clinic in the camp. Due to rapidly rising numbers of arrivals, a large scale, organised camp is established several kilometres outside of the mayor's town. The numbers in this new camp quickly exceed the numbers living in the improvised camp. Faced with the greater numbers in the new camp, the mayor decides to move the primary healthcare clinic out of the temporary camp into the organised camp to meet the health needs of the larger population there. However, the mayor can also foresee that her actions will frustrate the welfare interests of the residents of the original camp by reducing their access to the primary healthcare clinic. Unlike the mayor in the original formulation of this situation, the mayor sees the unavoidable harm occasioned to the improvised camp residents as a side-effect of her actions rather than as an end itself, or as a necessary steppingstone on the way to achieving some other end.

Upon reading the accounts of those who find themselves in disasters, situations of do-foresee arise when decisions are made to direct, redirect, or remove, aid from one individual or community to another. Such redirection of effort holds in it the possibility that the welfare interests of other individuals or communities that stand to benefit from care, treatment or service provision may be obstructed or set back. In such situations, the harm occasioned to those denied care, treatment, services etc. is foreseen but not intended. Going further, the experiences of those in disaster contexts tell us such decisions are hard choices to make and that there are feelings of regret, guilt and remorse at the harm occasioned even as others benefit.

Allow-foresee

In some situations, events unfold and as these events unfold, one can countenance that harm may occur. In some contexts, any harm that occurs serves no purpose, it is not an end in itself or a necessary steppingstone to the realisation of some other end, harm is merely foreseen. Further, in certain situations, there may be opportunities to act or react to unfolding events in such a way that the harm that can be countenanced will not occur.

As an example, reconsider the mayor of the small town who has seen a disorganised camp of migrants and displaced people spring up on the outskirts of her town. The inhabitants of the camp are fleeing conflict, poverty, and natural disasters. In the first few weeks and months, the mayor through a sense of civic duty and charity, tolerated the camp and ensured the town's health services were available to the camp's inhabitants. The municipal director of public health has established a primary healthcare clinic in the camp that is open nine-to-five. The mayor has made funds available to support this clinic, drawing on the municipality's budget. A larger, organised camp of over one thousand residents has recently opened but there are no health facilities in this new camp. The mayor is asked to consent to a plan by the director of public health to close down the primary healthcare clinic in the original improvised encampment and move the clinic to the new camp to meet the needs of the one thousand. The mayor can foresee that removing the clinic will harm the one hundred or so residents of the improvised encampment. However, the mayor is swayed by the arguments put forward by the director of public health that the clinic should be moved from the smaller, improvised camp to the larger, organised camp. The mayor does not object and allows the clinic in the smaller camp to be closed and re-sited into the larger camp, thus benefitting the larger population there.

In this reworking of the mayor and the clinic scenario, the mayor can countenance the harm that will befall the residents of the improvised camp in the aftermath of the closure of the clinic. However, the mayor does not intend harming the residents of the improvised camp as an end itself, as, for example, some form of collective punishment. Nor does the mayor intend harm to befall the improvised camp as a necessary steppingstone to another end. The key difference between the second

and third presentations of this case turns on who is making the decision. In the second presentation of the case, it was the mayor who harmed through an act of her doing – ordering the relocation of the clinic from the old to the new camp. In this third case, the positive act to move the clinic belongs to the director of public health, the mayor merely allows the relocation to happen even though she can foresee the harm that will occur. To paraphrase Kagan; the mayor allows harm because there is some alternative reaction on her part - i.e refusing the director of public health's request to move the clinic - by which the countenanced harm will not have occur.

In these discussions of the do-allow and intend-foresee harm, effort has been taken to stand aside from the motivations and justifications of those who are party to the occurrence of harm. In the first presentation of the case of the mayor and the clinic, the mayor may be spiteful and wish to punish the migrants in the improvised camp, alternatively the mayor may wish the migrants to move on to more suitable facilities elsewhere, or the mayor may have one eye to the municipal budget and have concerns about her ability to provide health services for her town's residents. Similarly, when I allow a salvageable patient to die in intensive care in order to free a bed for another, I may do so to provide a bed space for my sister, or maybe a local politician or the son of the hospital director. Alternatively, I may allow a patient to die so as to free an intensive care bed in favour of someone who is more likely to make a rapid and full recovery. In this way we can uncouple harming from motivation. This is an important step to take because it is too easy for instances of occasioning harm to be read as instance of willing or desiring harm to occur.

Irrespective of the motivation for doing or allowing, intending as a means to an end or merely foreseeing harm as a side-effect, in all of the cases above harm has occurred insofar as those harmed have had the pursuit and realisation of their welfare interests frustrated, set-back, or defeated outright. At this point we can revisit the standard model of harming. This standard model defines harming as those positive acts that interfere in another person's pursuit of their welfare interests, or the realisation of their more ultimate projects, objectives, and aspirations. In this view of harming, not harming is seen as a case of refraining from those actions that interfere in another person's pursuit of their interests. As such, not harming is presented as a negative duty, the duty to refrain. The standard model continues with the proposition that the negative duty to refraining from acts that harm carries a low cost to the individual and is therefore more stringent (Blumenfeld, 1981). Yet it is unclear from the standard model account of not-harming as a negative duty to refrain as to whether or not I harm someone if I fail to act and intervene to prevent harm that I can foresee. To illustrate this point let us reconsider the ICU patient during a pandemic who has pneumonia and renal failure. The standard model of not harming tells me I have a strict obligation to refrain from acts that bring about harm. Therefore, there is a strict prohibition on me picking up a syringe full of potassium chloride and injecting it into the vein of the ICU patient. However, in the case above, I stand in a position to help

the gravely ill ICU patient by treating their pneumonia and renal failure. Applying the standard model of harming as positive acts of interference, it is difficult to discern how I have harmed the patient by not treating their pneumonia and renal failure, I can reasonably claim that *"After all, I haven't done anything"*. The standard model of harming seems to struggle to account for situations where I can prevent harm but choose not to act.

Allowing harm

The problem of failing to stop harm happening was raised by Rachels in his 1975 paper *Active and Passive Euthanasia* (Rachels, 1975). In this paper, Rachels presents Smith and Jones who are both intent on killing their younger cousins; Smith drowns his cousin as the child is taking a bath. Jones, likewise, sets out to drown his cousin, but upon entering the bathroom he sees his cousin slip, hit his head and fall face down into the bath and *"with only a little thrashing about, the child drowns all by himself, "accidentally", as Jones watches and does nothing"* (Rachels, 1975, p79). Following the standard model, we would argue that there is a strict prohibition against Smith's act of pushing his cousin's head under the water. Further, we would condemn Smith for their positive action in harming their cousin arguing that all Smith had to do was to refrain from pushing the child's head under the water. Applying the standard model of harm to Jones, some may arrive at the conclusion that Jones did not harm the child. A model of harming that presents harming as those purposive acts that interfere with another pursuit of their interests struggles to accommodate harm that arises in situations of non-acting. At this point the question of blame remains open however. For some, the conclusion that Jones did not harm the child removes the possibility of blame. However, for others, Jones' inaction is an example of a morally culpable non-doing, an *omission*, which is blameworthy (see p113 below). Applying the standard model, a moral asymmetry can be seen between Smith's act of purposive killing and Jones' passive merely allowing their cousin to drown. Some may flinch at this conclusion and claim that there is a moral equivalence between the actions of Smith and the mere passive allowing by Jones. Some may seek a middle ground and claim that doing and allowing harm are, on some occasions morally equivalent, but on other occasions morally asymmetrical (Rachels, 1981). We can see these difficulties at play if we reconsider the actions of the Israeli field hospital team that worked in Haiti after the 2010 earthquake there.

The Israeli field hospital team working in Haiti altered their admission criteria to deny access to care to injured earthquake victims whose path to recovery would be long or uncertain. If the moral asymmetry of doing and allowing is accepted, then the medical team can argue that they merely allowed harm to occur to those they refused admission to, and therefore should not be blamed for the harm that they countenanced and allowed. If, however, the moral equivalence argument is accepted, a different conclusion is arrived at. The medical team had both the opportunity and means to prevent

harm occurring to severely injured earthquake victims, yet by denying hospital admission they harm those denied care. If we hold onto the view that harming occurs when one person interferes to obstruct or defeat another person's pursuit and realisation of their interests, it appears as if the field hospital medical team has not interfered at all but merely allowed a causal train of events to unfold. One response to this is to move the focus away from the actions and 'doings' of a person, to a person's reaction in a given set of circumstances.

In any situation, a person has options to react to the circumstances they find themselves in in different ways. Further, even inaction in the face of opportunity is a reaction. An alternative view of harming as interference is to consider the perspective of the one that stands at risk of being harmed. From this perspective we can contend that if a person would be better off if I did not act or react in the manner I did, then I occasion harm. Kagan proposes the following test for interference:

> " ... the agent interferes by reacting in a given way if the victim would have been better off had the given reaction not occurred."

<div align="right">(Kagan, 1989, p97)</div>

We can apply Kagan's test to the Israeli field hospital medical team's refusal to admit a patient for treatment. We can now ask the question, would the patient denied admission have been better off if the reaction of the medical team, i.e. refusing admission, had not occurred? For the patient refused, we can say yes, their life would have gone better, and their interests better served if the medical team had not refused admission. Therefore, the medical team have interfered in the patient's pursuit and realisation of their legitimate welfare interests and therefore harmed the patient.

The uncomfortable conclusion of Kagan's proposed test is the realisation that even situations in which harm was merely allowed also count as interference for which an agent may be responsible. By presenting allowing preventable harm as interference, cases of allowing harm are just as offensive as those positive acts that bring about harm through interference. For some, this offense flows from a judgement that the inaction was a morally culpable non-doing. However, a stronger position would be that the offense flows from the position that preventing foreseeable harm *is* harming. On both counts, inaction to prevent harm in the face of the possibility of acting otherwise presents a problem to healthcare workers who find themselves in a disaster. Further, the view that allowing preventable harm is interference and hence harming, challenges the view that there is a moral asymmetry between doing and allowing. As Feinberg observes, the distinction between causing harm and not-preventing harm *"is not in itself of great moral significance"* (Feinberg 1984, p186). This adds significant complexity to the standard model of harming as it now appears that if I do nothing as events unfold that interfere with how another person pursues and realises their interests, I harm that person. For those working in disasters, this is a serious concern.

Healthcare professionals who find themselves in a disaster context are faced with multiple opportunities to prevent harm whilst at the same time they cannot take up all of those opportunities, despite feeling they have a professional responsibility to prevent harm. Asking the question *"Would victim or patient be better off if the nurse or doctor or pharmacist had acted in a different manner?"* seems to lead to an uncomfortable conclusion. It now appears as though it is impossible not to harm in disasters because the allocation of scarce resources to one in need necessarily denies another also in need of care and treatment. In addition, it can be claimed that for the one denied care and treatment their life would have gone better, their welfare interests better served etc., if the healthcare professional had decided otherwise. This is a quandary because healthcare professionals committed to first do no harm, now seem to be unable to escape harming disaster victims. In the face of this quandary the question needs to be asked as to whether or not the obligation not to harm is as universal and stringent as the standard model of harming/not harming suggests.

Limits to not harming

The standard model of harming presents not-harming as a stringent prohibition. The stringency of the prohibition flows from a view that not harming merely requires someone to refrain from acts that occasion harm through interfering with another person's pursuit of their interests. Not-harming is seen as a negative duty that has the characteristics of being pervasive, overriding, and stringent. That is to say, the obligation to not-harm is pervasive across all voluntary human acts, both trivial and monumental, the obligation to not harm overrides an agent's own interests, and the obligation to not harm is stringent and demanding (Scheffler, 1986). This view of not harming becomes problematic if you accept that both doing and allowing harm have moral equivalence, as argued by Feinberg and Kagan. If there is a prohibition on me harming another person, such a prohibition requires me to both refrain from acts that occasion harm to another, and also to act to prevent harms that I can foresee. Thus, not only am I obliged not to push you from a bridge into the river, but applying a strict interpretation that ignores cost to the individual, I am also obliged to dive into the river and rescue you if I come across you floundering in the water, not from a duty to save your life but from a duty to prevent harm occurring to you by preventing your drowning. We can appreciate how a pervasive, overriding, and stringent prohibition on harming by allowing, or failing to prevent harm, becomes problematic as at any given time, as there are innumerable opportunities open to each of us to prevent harm occurring to another person.

In disasters, need outstrips the ability to respond to that need. As a consequence, many of the choices made by healthcare professionals leave some victims' needs unmet. If we accept that harm is occasioned to a victim if that victim's life would have gone better if a healthcare professional had acted differently or made a different choice, then harming disaster victims appear to be an inevitable

feature of healthcare practice in disasters. This is a controversial conclusion that challenges views about the good work done by healthcare professionals in disasters. As an example drawn from real life, this line of argument and its conclusion can be used to evaluate the actions of the Israeli field hospital and the Stanford medical team that operated in Haiti after the 2010 earthquake. When the Israeli field hospital altered their admission criteria in Haiti, they harmed those that were refused admission, that is to say the lives of those refused admission would have gone better if they had been admitted, hence they have been harmed. Again, when the Stanford Hospital team withdrew from overnight care provision in Haiti, those patients left unattended were harmed because, in line with the Kagan's position, those left unattended would have been better served if the given reaction by the Stanford Hospital team not occurred, i.e. they had remained in place and on duty overnight. And again, if we consider the selection of patients for access to limited resources such as dialysis as described above, those who are not selected are harmed, i.e., the lives of those denied dialysis would go better if a different choice about access had been made. The unpleasant conclusion is that in the exceptional circumstances found within a disaster, harming by healthcare professionals is unavoidable even as good is done. Further, not only is harming unavoidable, but also healthcare professionals in a disaster are in a position of choosing who to harm and to what degree. In this way, it can be suggested that the possibility of occasioning harm becomes a ubiquitous feature of the experience of healthcare professional working in a disaster.

We can consider two responses to the possibility that harming in disasters is unavoidable. Firstly, the assertion that the prohibition against harming is pervasive, overriding, and stringent can be maintained. Maintaining the stringent prohibition on harming by doing, by allowing or by not preventing, may paralyse those who work in disasters as every option and choice open to them occasions harm to someone. A second response to the ubiquity of harming occurring in parallel with a strict prohibition on harming is to accept that actions undertaken, and choices made in disasters will harm, but to weaken the obligation not to harm. This response involves challenging the standard model of harming that runs along the lines that not harming is easy and the ease of not harming creates a strict prohibition on harming. A counter claim can be made that not harming is in fact difficult, if not impossible, to achieve in disasters. Further, the difficulty in not harming weakens the premise upon which the strict prohibition not to harm is based. Under this view, the duty not to harm becomes less stringent in the demands it makes on people. This position can be further expanded by drawing on ideas presented in Urmson's paper *Saints and Heroes* (Urmson, 1958).

Urmson draws a distinction between actions that are obligatory, acts that are wrong and that you should not do, and thirdly, actions that are right but not obligatory (Urmson, 1958). When applied to the problem of the ubiquity of harming in disasters, we can consider actions of doing that intend or countenance harm as wrong actions that should not be done. By contrast, actions that prevent harm

occurring could be understood to be a right actions but not obligatory actions. Applying Urmson's principles to cases already discussed, we could say that it would be right for trauma surgeon Patricia to travel from Paris to New York to offer assistance in the wake of 9/11, but such an action is not obligatory. By contrast, injecting an intensive care patient with potassium chloride in order to end their life to free up a bed-space would be a wrong act that one should not do.

Urmson further suggests that actions that are right but not obligatory cannot be demanded and their non-doing cannot be called wrongdoing (Urmson, 1958). Urmson's identification of acts that are right but not obligatory can also be applied to the Stanford Hospital team that withdrew from overnight care provision in Haiti following the 2010 earthquake (Camacho-McAdoo, 2010). For this team, it would have been right, but not obligatory, for the team to provide overnight medical care rather than withdrawing at nightfall. Further, continuing Urmson's reasoning, the withdrawal of the medical team cannot be called wrongdoing. However, some may counter that there was some form of duty that tied the medical team to those they cared for during the day. As such, some may argue that there was a duty on the medical team not to allow the harm they could foresee to happen as a result of their withdrawal. Whilst there is a degree of clarity surrounding the evaluation of acts of doing that intend or allow harm, the situation around not doing and inaction that allows harm to occur seems less clear cut. Fortunately, Feinberg brings a degree of analytical clarity to this confusion.

Inaction, non-doing, and omissions

Feinberg's explores the distinction between inactions and omissions, where omissions are *"not simply any inaction but a morally culpable inaction"* (Gillon, 1986, p. 127). Feinberg proposes five conditions that separate an inaction from an omission (Feinberg, 1984, pp. 159-161). To help apply Feinberg's analysis to disaster healthcare, it might be useful to compare the situation of Patricia, the trauma surgeon in Paris in the aftermath of 9/11, the Stanford Hospital medical team working in Haiti who withdrew overnight – which we can refer to as 'Stanford', and the actions of the Israeli field hospital team also working in Haiti after the 2010 earthquake. To rephrase Feinberg; what does it mean to say that Patricia or Stanford or the Israeli field hospital omitted to assist the victims of 9/11 or the Haitian earthquake?

The first of Feinberg's questions is a simple one, was some action left undone whose doing would have prevented harm? Thus, did Patricia and Stanford in fact fail to assist the victims? The answer is yes, through their inaction, or nondoing, both Patricia and Stanford allowed harm to occur to victims. But this fact is also true of the majority of the global population who witnessed 9/11 or the Haitian earthquake but did not act. It is false to claim that everyone who witnesses a disaster on the television news, or reads about them on-line, but fails to act to prevent harm that they can foresee, is

morally culpable of preventing harm. Therefore, the mere inaction in the face of preventable harm does not count as a morally culpable omission.

When considering why every witness to a disaster has not omitted to prevent harm through their inaction in the face of preventable harm, a consideration of opportunity to act is needed. It can be claimed that those who are geographically remote from an event do not have the opportunity to act to prevent harm and as such have not omitted to prevent harm through their inaction. In this way, we can consider Patricia in Paris and recognise that she had no opportunity to prevent harm occurring to the 9/11 victims in New York. By contrast, Stanford has a clear opportunity to prevent harm occurring to those they left overnight without care. Therefore, there is a stronger claim that Stanford omitted to prevent harm, when compared to Patricia. By introducing considerations of opportunity, those who witness disasters at a geographical distance can be considered to be nondoers rather than omitters[17]. At first glance it appears true that events that occur at a geographical distance reduce the opportunities for actions to prevent foreseeable harm, yet this first glance truth may be an over generalisation.

When exploring nondoing and omitting, cases are used to illustrate points that commonly turn on situations where a person is standing on a riverbank, or beach, or even by the side of a bathtub watching someone drown within arm's reach (see for example Smith and Jones in Rachels (1975)). However, advances in technology in the twenty first century now mean we can be virtually present almost anywhere in the world, instantaneously, and anywhere in the world can be brought into our office, living room or even dog-walk, through communication technology. As Lichtenberg observes, we have new and emerging abilities to make things better or worse for others at ever greater spatial and temporal distance (Lichtenberg, 2010). In a way, as the capability of information technology increases, so too does the proximity and opportunity for effective intervention disasters.

If we return to Patricia, but now consider Patricia in 2021 watching a further terrorist attack unravel in New York that leaves many hundreds injured. Through advances in technology, Patricia has the opportunity to review digital x-rays and scans on behalf of hard-pressed colleagues in New York, Patricia can contribute to video case conferences, and even undertake patient assessments over the internet. For Patricia in 2021, the claim that she has no opportunity to effectively act within the unfolding disaster appears weak. Let us also imagine a re-run of the Haitian earthquake but again in 2020s. Let us imagine that a website or mobile telephone application is created that lists the mobile phone numbers of earthquake victims, each victim's mobile phone number listed is able to accept electronic money transfer. With such a website or mobile telephone application it is now possible to sit in Helsinki or Kobe or Kampala, and instantly send money to an individual disaster victim. Such use of technology introduces new opportunities for providing aid, but also new opportunities for

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[17] 'Nondoer' and 'omitter' are terms taken from Feinberg (1984), p159

failing to assist and prevent harm that can be foreseen or countenanced. Therefore, if we rely on opportunity alone as the demarcation between nondoing and omitting, we now find many more people are morally culpable for omission than we may want to accept. To narrow the field, as it were, Feinberg sets a third condition to accompany opportunity – ability.

A further condition set down by Feinberg for separating nondoing or inactions from morally culpable omissions is the presence or absence of ability. That is to say, if one is unable to effectively prevent harm from occurring, then one's failure to prevent harm through nondoing cannot be considered as an omission. For Stanford, there was a clear ability to provide overnight care, but a choice was made not to provide such care. This choice by Stanford allowed harm to occur to those victims left without overnight care, even though Stanford had the ability to continue to provide overnight care and, hence, prevent harm occurring. As such, we might be inclined to judge the nondoing of Stanford as an omission. Whilst Feinberg presents the conditions of opportunity and ability as separate conditions, it is easy to see how these two factors conflate. For example, for Patricia in 2001, she possessed the clinical skills and knowledge to prevent harm, but a lack of opportunity made her unable to effectively intervene in New York. It is difficult, and perhaps unhelpful, to try to disentangle opportunity from ability in this case. Perhaps it is enough to claim that Stanford were able to prevent harm that could be foreseen, whilst Patricia was unable to prevent harm that she could foresee. As such, we are more inclined to evaluate the inactions of Stanford as omission and evaluate Patricia's inaction as nondoing.

Above, the possibility of mobile technology to provide direct assistance to disaster victims was imagined. Now let us consider a teenager in the 2020s watching another Haitian earthquake unravel from their bedroom in Helsinki, or Kobe, or Kampala. They want to help in some way but are unaware of the mobile phone application that allows them to send money to disaster victims in Haiti. This teenager has a mobile phone that will accept the money-transfer application, and the teenager has money in their bank account to send to a disaster victim in Haiti, yet they do not. In this situation, the teenager has both the opportunity and ability to prevent harm through money transfer, yet they lack knowledge of the opportunities to help open to them.

For a failure to prevent harm through nondoing to count as a morally culpable omission, not only must there be an opportunity and ability to act in a way to avoid or prevent harm occurring, but there must also be knowledge. Knowledge is the fourth consideration that Feinberg uses to separate nondoings from morally culpable omissions. Following Feinberg's analysis, to judge an actor's failure to prevent harm as an omission, the actor needs to know, or believe with a degree of certainty, that there is a person at risk of harm, and further, the actor needs to believe that they have sufficient ability and a reasonable opportunity to prevent harm that they can foresee or countenance. We can apply the

question of knowledge to Stanford as they contemplate withdrawing care and treatment overnight. Stanford knows there are people whose lives will go better if they continue to provide overnight care. Stanford also knows they have both the ability and opportunity to provide overnight care. In the case of Stanford, their awareness of the situation, opportunities and abilities open to them shifts the evaluation of their action away from a nondoing towards a morally culpable omission. When passing judgement on Stanford, some may also raise the question of the duties Stanford owed to those in their care.

When comparing the inaction of Patricia in not flying out to New York in the aftermath of 9/11 or the withdrawal of overnight care by Stanford, some may claim that Patricia and Stanford had different degrees of obligation towards the disaster victims whose harm they could foresee and countenance. For Feinberg, consideration of duty provides the fifth consideration that distinguishes nondoing from omission. The question of duty and how it relates to nondoing and omission can be explored through a reconsideration of the decisions of the Israeli field hospital who deployed to Haiti after the 2010 (Merin, et al. 2010; Ram-Tiktin 2017).

In chapter two the experiences of an Israeli field hospital and its medical team were presented. This medical team revised their hospital admission criteria so as to withhold care and treatment from seriously injured earthquake victims who had a poor prognosis, or whose eventual recovery could only be achieved at the expenditure of considerable resources and time. Let us consider a patient who was denied access under these new admission criteria. Firstly, did the field hospital team fail to prevent harm that could be foreseen and countenanced? The answer to this is yes, the medical team could foresee the harm that would befall the victims denied admission to the hospital. Further, the refused victim's interests would have been better served if the field hospital team had acted differently, that is to say if the team had admitted the victim for care rather than refused admission. In this way, following Kagan's argument that harm is done when someone's life would have gone better if someone had acted or reacted differently in a given situation, we can argue that the field hospital harmed the victim refused admission. Secondly, the field hospital had the opportunity to admit the victim. The basis of the decision not to admit was not driven by a recognition that the field hospital was full and there was no opportunity to admit all victims. Rather, there was an opportunity to provide care and treatment to victims, but a choice was made to refuse admission in the face of this opportunity. Thirdly, the field hospital had an ability to provide care and treatment to those they refused. The fourth condition separating nondoing from omission, turns on knowledge. It would be difficult to argue that the field hospital team did not know there were earthquake victims in need who were, quite literally, on their doorstep. Likewise, it would be difficult to argue that the field hospital was unaware that they had the opportunity and ability to prevent harm occurring to those refused admission. Therefore, following the considerations of Feinberg, the Israeli team did not act to prevent

harm that could be countenanced even though they had knowledge of the opportunity and ability to prevent the harm they could countenance. With these points in mind, the presence of knowledge, opportunity, and ability, we can turn to the question of duty that serves as Feinberg's final consideration that separates nondoing from morally culpable omission (Feinberg, 1984, p. 161).

Feinberg identifies several duties whose nonfulfillment renders inaction a morally culpable omission rather than a nondoing. Firstly, omissions can be seen to arise where inaction occurs in a situation where *"A had a special duty to do X in virtue of his job, his socially assigned role, or his special relationship to B"* (Feinberg, 1984, p. 161). As explored previously in chapter three, for healthcare professionals there is a codified professional duty to provide care to those in need. Therefore, it is difficult to deny that the field hospital medical team had a special duty to provide care and treatment to disaster victims by virtue of the field hospital's healthcare professionals' jobs and their socially assigned roles. Thus, the denial of care and treatment to disaster victims can be seen as a breach of a special duty the field hospital had to provide care and treatment to disaster victims. Some may agree with this up to a point. They may agree that there is a professional obligation to provide care and treatment to those in need, but they may claim that the obligation only extends to those within one's care and is based on a duty to care combined with fidelity to those one has started to care for and treat. That is to say, the field hospital medical team had a duty to provide care and treatment to the patients within the field hospital, but there was no obligation on that team to admit for care those victims who presented themselves at the field hospital. Further, reflecting Urmson's view, hospital admission would have been a right but not obligatory act (Urmson, 1958). In this way, some may distinguish the failure to admit and commence care and treatment from the withdrawal of overnight care by Stanford, even though both inactions resulted in harm that was foreseeable, countenanced, and preventable. As such, the field hospital team could be considered nondoers, whilst Stanford were omitters. Some may still be unhappy with this conclusion and want to press the point that while both the field hospital and Stanford had a special duty to continue to provide any care already commenced, the field hospital had an additional duty to admit for care those in need. This additional duty can be seen as a general moral obligation that can also serve to delineate nondoing from omission.

When considering the criteria for evaluating an inaction as an omission, Feinberg not only refers to a failure to fulfil obligations that arise by virtue of job or socially assigned role, but also to failure to fulfil a general moral obligation that extends to all people who find themselves in a particular situation (Feinberg, 1984, p. 161). The general moral obligation that seems at play in the case of the field hospital team is the obligation to intervene to prevent harm and provide aid when confronted by someone in pressing need. As a working out of this general moral obligation, Waldron provides a reflection on the parable of the Good Samaritan (Waldron, 2003). For Waldron, the Good Samaritan offered help because of the coincidence in time and space of two concrete individuals; one

in need and one able to recognise and respond to the need. For Waldron, the Good Samaritan was confronted by actual need. This confrontation captured the attention of the by-stander and focussed their attention. By focussing attention, the by-stander is forced to respond in some way, for example they may peer further through voyeuristic interest, or turn away in disgust, or pass-by, or they may offer help. However, once having had one's attention focussed by the plight of another, non-helpers and those who fail to prevent harm, have to repudiate their focus, and turn, or return, their focus to other matters (Waldron, 2003). Physical proximity is an important consideration because through physical closeness, one's attention is captured more fully and securely (Reader, 2003). Waldron presents the physical relationship between the Good Samaritan and the victim of attack as:

> " ... *close enough to hear his plea for help, or at least see it in his eyes: and they* [the Good Samaritan] *would know he* [the victim] *knew that they were the one in a position to help him when it appeared no one else could or would."*

> (Waldron, 2003, p. 350)

For Waldron, intervening in situations of dire and pressing need that are spatially and temporally imminent is an *"elemental matter of morality"* that flows from *"the direct moral appeal of one human being to another"* (Waldron, 2003, p. 350). In this way, the obligation to assist when confronted with dire and pressing need can be seen to be a general moral obligation that extends to all people who find themselves in a particular situation. Following the thoughts of both Waldron (2003) and Reader (2003), we can suggest that the physical presence of another person in pressing need creates a relationship that demands a response of aiding; just encountering another person is need is sufficient to create such an obligation. In general, objections can be raised to this position, but for those interested in providing assistance in disasters an obligation to aid those present at hand and in need does not seem controversial.

The purpose of this discussion of the obligation to aid strangers in need is presented here to question the claims that medical teams, aid organisations etc., only have obligations to continue to care for those they have chosen to admit into their care, as per Stanford. We can see that arguments can be presented that extend the obligation to provide aid to those who are quite literally on-the-doorstep of those able to provide aid. Thus an argument can be put forward that there is a general moral obligation to help those in pressing need that is binding on all, including the Israeli field hospital team. In this way, the nondoing of the Israeli field hospital team in refusing admission can be seen as a morally culpable omission. This conclusion casts in doubt the claim that no moral wrong is done when disaster victims are not cared for or treated, or have their care and treatment removed, in order to provide care to another. This view stands in opposition to the position expressed by the World Medical Association in its statement on ethics in disasters *"The decision not to treat an injured person on account of priorities dictated by the disaster situation cannot be considered an ethical or medical*

failure to come to the assistance of a person in mortal danger" (World Medical Association, 2017). Applying Feinberg's five tests (a nondoing, an opportunity, an ability, knowledge, and a special or general duty to act), a significant challenge can be mounted to the WMA's view that not treating someone in need in a disaster should not be considered a morally culpable failure.

To summarise, Feinberg proposes five conditions that separate nondoings from morally culpable omissions that can be applied to issue of not-harming. An omission is an inaction that allows harm to occur in situations where the harm is foreseen or countenanced and where there was opportunity and ability to act or react in a way such that harm could be avoided, and that such failure to prevent harm took place in a situation where a prior duty to prevent harm existed. When we apply this analysis, we can see that the lack of opportunity and only a distant relationship to the victims, allows us to judge Patricia's inaction on September 11th, 2001, as a nondoing. When we apply the same analysis to the Stanford medical team who withdrew overnight and the Israeli field hospital team who refused admission to certain disaster victims, we can see that in both circumstances there was both opportunity and ability to prevent harm, and both a special duty to provide care and a general duty to respond to those who are nearby and in dire and pressing need. Therefore, it is difficult to resist the conclusion that both Stanford's and the field hospital team's inaction were morally culpable omissions. In response to this conclusion, some may wish to point out that in this analysis, no consideration to motivation or reasons has been given. Both Stanford and the field hospital team were able to provide reasons for their inactions. In both cases, harm was allowed in order to pursue or realise some other good, and this form of justification warrants an extensive analysis that is undertaken in the following chapter that takes 'doing good' as its focus.

For now, we need to hold in mind the focus of this chapter which has been to understand the principle of 'do no harm' and how it applies in disaster contexts. It now appears that harming by failing to prevent, and morally culpable omissions that allow harm, are regular features of healthcare provision in disasters. An even stronger position to take is to propose that, for healthcare professionals who respond to disasters, harming through non-doing is in fact a key element of the moral signature of a disaster.

The possibility that it is impossible to avoid harm even as good is done has significance for understanding the nature of disasters. In chapter one a bold claim was made that disasters are impersonally bad, intrinsically bad irrespective of whether one is a victim, responder, bystander or completely ignorant of the disaster. It was claimed earlier that the intrinsic badness of disasters was self-evident. However, some may question ask on what grounds are disasters self-evidently bad.? It can be suggested that in part at least, the badness of disasters is the inability to avoid occasioning harm even as good is done. Disasters can be seen to be events in which every intention to do good is

mirrored in harm as the allocation of limited resources to some necessarily deprives others of the resources they need to secure their welfare interests. In this way, the presence of unavoidable harm can be seen as a hallmark of disasters, a hallmark that makes all disasters intrinsically bad.

Conclusion

This chapter has set out to describe the principle of *first do no harm* as it applies to healthcare professionals in disasters. Whilst the standard model of not harming focusses on not-harming as a negative duty, a relatively cost-free duty to refrain, a more expansive conception of harming has been presented. This more expansive conception turns on a central question as to whether or not a person's interests would have been better served if an agent had acted otherwise, either through action or inaction. When applied to the situation of healthcare professionals in disasters, this more expansive conception introduces the possibility that harming is a ubiquitous feature of working in disasters contexts. Further, it has been suggested that where harm arises through a non-doing, many of these non-doings may be judged to be morally blameworthy omissions.

In response to these conclusions one point needs to be reemphasised. Up to this point, little consideration has been given to the motivations or reasoning of those who stand to harm in disasters. In disasters, harm may be occasioned or countenance in order to pursue or realise some other end that is held to be worthy. Harm is seen as a price to be paid as it were. This view is reflected in the experiences of those who work in disasters, who frequently express regret at the harm they have been party to, yet consider the harm occasioned as a necessary price that had to be paid in order to achieve some other good. In this way, we see a clear real-world conflict between the pursuit of a duty not to harm and the realisation of good outcomes, a conflict between professional obligations and intended consequences. We can see that this conflict is anchored in the primacy given to the obligation not to harm – *first do no harm*. Yet, providing healthcare is not primarily abut not harming, healthcare is about doing good. In this way, doing good can also serve as general principle that can be used to inform and guide the practice of those healthcare professionals who find themselves in a disaster. The following chapter takes as its focus the principle of *do good*. A critical analysis of what doing good in disasters looks like will be presented followed by an exploration of the weaknesses of ethical approaches that aim to maximise outcomes in disasters will be highlighted.

Chapter 5: Doing good in disasters

Introduction

This chapter takes as its focus the principle of doing good in disaster healthcare. The nature of doing good in disasters is presented and contrasted with doing good in normal times healthcare practice. An account of triage and disaster triage is provided that leads to the development of a consequentialist orthodox position in disaster healthcare that seeks to maximise a restricted set of medical outcomes. The implications of this orthodoxy are explored and questions asked as to what should be maximised under this consequentialist approach. A critical stance is also taken towards arguments that favour greater numbers over the few. The question as to the commensurability of outcomes is also presented, and the implications of this issue for arguments that seek to balance benefits against harms and burdens are explored.

The nature of the good in healthcare

Without engaging in a lengthy exploration of the origins and development of professionalised medicine, surgery and nursing, the claim that these activities aim at promoting good ends is not controversial. We can present the aims of medical and nursing practise as, as a minimum, the saving of lives, the relief of suffering, the promotion of recovery and restoration of health for persons (Alligood, 2014; Arras, 2001). These healthcare aims can be seen to be primary goods that all of us seek to realise in our lives. Rawls identifies primary goods as those things:

> "which it is supposed a rational man wants whatever else he wants. Regardless of what an individual's rational plans are in detail, it is assumed that these are various things which he would prefer more of rather than less."

(Rawls, 1999, p. 79)

In terms of concrete goods, we can draw on the work of Doyal and Gough and identify as primary goods those things that meet the individual's survival and health needs and support their autonomy (Doyal & Gough, 1984). Therefore, one conceptualisation of the purpose of formalised healthcare is to help people secure the primary goods of survival, health and vigour, and freedom from suffering whilst optimising the autonomy of the individual. This essential purpose of professional healthcare adds form to a rather vague obligation to 'do good'. The clarification of the essential purpose of healthcare practice is important as it offers a point of certainty for those in disasters who find themselves working in situations of moral uncertainty and ethical conflict. However, whilst helpful, such clarification does not go far in resolving the central question of how to balance multiple competing calls on restricted resources, especially when these calls are pressing and the survival, health, and freedom from suffering of disaster victims is in jeopardy.

Responding to needs in disasters

It has just been suggested that the aims of healthcare practice are to secure certain primary goods that are in jeopardy. It may be dangerous to assume that such aims carry over to healthcare practice in the exceptional circumstances found within disasters; after all there is no guarantee that exceptional situations will not generate correspondingly exceptional aims. This raises a question as to the stated aims of disaster healthcare practise.

The answer to the question as to what the stated aim of disaster healthcare is can be found in two sources of evidence. Firstly, there are general discussions as to the purpose of healthcare in disasters that draw on the considered opinion of experts. Secondly there are the assertions and content of operational guidelines and codes of practise produced by various authoritative bodies. Here are examples of both sources of evidence:

> *"The defining goal of humanitarian action is to save and protect individual lives"* (Slim, 2015, p. 47)

> *"At present in emergency preparation, the operating moral rule for rescue professionals ... is Save the Greatest Number"* (Zack, 2009, p. 26)

> *"... minimize death, injury, disease and suffering during and after an emergency"* (Jennings & Arras, 2008, p. 45)

> *"He/she should attempt to set an order of priorities for treatment that will save the greatest number of lives and restrict morbidity to a minimum"* (World Medical Association, 2017, p. 8.2.2)

> *"Medical ethics in times of armed conflict is identical to medical ethics in times of peace ... the primary task of the medical profession is to preserve health and save life"* (British Medical Association, 2017, p. 41)

The quotes above clearly tie disaster healthcare practise with the pursuit of the primary goods of survival and health that are the foundations of healthcare practise in normal, non-disaster times. Therefore, a preliminary answer can be offered to the question as to the aims of disaster healthcare: yes, the stated aims of healthcare in disasters do coincide with the aims of medicine and nursing as practised in non-disaster contexts, namely the preservation of life and the reduction of morbidity. Further, the exceptional nature of disasters does not create exceptional aims for healthcare professionals.

However, the similarity between the aims of normal times and disaster healthcare may be seen to falter under closer examination. There appear to be two important points of divergence between the practise of healthcare in normal times and healthcare practised in disaster contexts. Firstly, disaster contexts are characterised by an imbalance between resources and need, with the scales tipped against

resources and in favour of need. This imbalance presents a very real danger that scarce resources may be expended for no gain in terms of saving lives or reducing morbidity. The imbalance between need and resources to meet these needs may also result in a failure to direct scarce resources to those most in need. One response to these issues that is now almost universally employed within disaster healthcare and conflict medicine is a systematic sorting of the sick and injured in order to allow those with the greatest need to be identified and aided (Barilan, et al., 2014) Secondly, in disaster contexts there is a shift from doing the greatest good for the individual to doing as much good for a population as possible (Veatch, 2005). This reorientation of purpose represents a significant divergence from normal times practise where the focus is on the needs of the one not the many. This shift of values requires a full exploration as to its justification and implications. However, for now attention can be placed on how the mass of those in need in a disaster context can be prioritised.

Prioritisation

The sorting and prioritising of people for the receipt of healthcare can be achieved through multiple different systems and structures. A simple system of first come first served could be employed, or priority be given to individuals of certain social standing such as women and children first, or maybe priority should be given to family members or friends, or perhaps prioritisation should be based on the ability of a person to pay for services rendered. However, within healthcare practise there is a foundational principle that care and treatment is directed by clinical need alone. Professional medical assistance and nursing care are presented as effectively blind to a person's social standing, familial relationships, psychological and emotional proximity etc. This view is expressed clearly in professional codes of practice and ethics for nurses and doctors across the world, for example:

> *"Doctors must always provide treatment impartially. Treatment decisions must be made based on clinical criteria and must not be influenced by clinically irrelevant factors such as nationality, ethnic origin, race ..."*

(British Medical Association, 2017, pp. 7-8)

> *"Nursing care is respectful of and unrestricted by considerations of age, colour, creed, culture, disability or illness, gender, sexual orientation, nationality, politics, race or social status."*

(International Council of Nurses, 2012, p. 1)

The quote above from the British Medical Association highlights the role that clinical criteria should play in decisions about who to treat. Clinical criteria have also been used as a response to the problems of prioritisation and the matching of resources to need. This leads to a sorting of people in need of care and treatment on the basis of their clinical condition, and allows for the prioritisation of

those most in need over those in lesser need. Within healthcare, this system of sorting and prioritisation is termed triage.

Triage in normal times

At its most fundamental, triage is a term derived from French language and means *to sort* (Mackway-Jones, 2012). Within medicine, triage is used primarily within the field of emergency medicine and is used to describe the initial phase of patient assessment and prioritisation based on needs identified through initial assessment. Iserson & Moskop (2007) and O'Meara et al. (2007) provide a standard historical account of the development of triage that runs as follows:-

The first formal use of the term triage in medicine is attributed to Baron Dominque Jean Larrey, surgeon general of Napoleon's armies. Larrey was faced with a haphazard arrangement of medical aid delivery based on first come first served, or more probably considering the context of an eighteenth-century battlefield, first found first served. Larrey insisted that the most dangerously injured should be identified promptly and treated first, recognising that those who are dangerously injured may not always be mortally wounded and at risk of imminent death. Isserson & Moskop (2007) include the following excerpt from Larrey's memoirs in their account of the development of triage:

> *"Those who are dangerously wounded should receive the first attention, without regard to rank or distinction. They who are injured in a less degree may wait until their brethren in arms, who are badly mutilated, have been operated on and dressed, otherwise the latter would not survive many hours; rarely until the succeeding day"*

(Larrey in Isserson & Moskop 2007 p227).

Larrey's system placed battlefield casualties into one of three categories; those with major wounds who required urgent intervention, those with minor wounds who could wait for medical attention, and those mortally wounded (Baker & Strosberg, 1992). Examples of the use of formal sorting and allocation systems used to prioritise casualties of war can be found in the British Royal Navy in the nineteenth century , Union forces in the American Civil War, medical services in both World Wars, and military medical services in both the Korean and Vietnam Wars (Iserson & Moskop, 2007; O'Meara, et al., 2007).

Beyond the battlefield the use of formal triage in civilian emergency departments can trace its origins to the 1960s. Prior to this time there was little systematic prioritisation of the sick and wounded beyond first come first served. The introduction of systematic triage in emergency departments allowed for the rapid initial assessment of emergency department attendees and their subsequent prioritisation for care based on their assessed needs. A key feature of triage systems is the use of decision trees that make heavy use of binary options at decision nodes. The Manchester Triage

System is an example of a well-developed and comprehensive triage system designed for use in emergency departments (Manchester Triage Group, 2013) . Now in its third edition, <u>Emergency Triage</u> runs to nearly 200 pages and provides triage systems for over 50 separate patient presentations (Manchester Triage Group, 2013). These patient presentations run from the patient presenting as a 'limping child', or are reported to be 'behaving strangely', through to the victims of 'major trauma'. Each presentation is accompanied by a presentation flow chart that serves to direct initial patient assessment and evaluation through the use of 'yes/no' filters. Each evaluation is subsequently linked directly to a priority level that runs from immediate down to non-urgent. As an example, consider the triage flow chart for a patient presenting at the emergency department with neck pain. The first three questions to be answered are:

- Is there
  - any airway compromise?
  - inadequate breathing?
  - signs of shock?

A 'yes' to any of these questions results in the person being prioritised as urgent and requiring care now. If the answer is 'no' to these initial three questions, a further set of discriminatory questions are asked:

- Is there any new neurological deficit less than 24 hours old?
- Are there any signs of meningism?
- Any purpura?
- Any non-blanching rash?
- Is the patient very hot?
- Are they in severe pain?

A 'yes' to any of these places the patient in 'very urgent' priority class. A 'no' to all of these questions would progress the patient to the next set of filtering questions. And so the flow chart progresses through further yes/no sets of discriminators until the patient's final prioritisation is reached.

Systems such as the Manchester Triage System rely exclusively on clinically relevant and empirical evidence. They do not allow for the inclusion of any non-clinical factors to influence decisions about prioritisation, in this way medical care is delivered that is blind to considerations of age, colour, creed, culture, disability or illness, gender, sexual orientation, nationality, politics, race or social status. As such, triage systems support the equal valuing of all lives and seeks to distributes healthcare resources to each according to their need.

The egalitarian and distributive justice credentials of the current comprehensive and well-developed triage systems in operation today can be traced back to Larrey's initial conception of triage.

Larrey was active in post-revolutionary France and served in an army that was staunchly egalitarian marching under the banner of 'Liberty, Equality, Fraternity' (Baker & Strosberg, 1992). Larrey's triage system was similarly egalitarian in nature in so far as it was blind to the standing of individuals, giving no consideration to military rank or social position when making decisions regarding who was a priority for care. These points are raised to highlight the links between triage and a principle of justice in healthcare that allocates resources to each according to need. That is to say, those in most need or whose needs are most pressing are allocated a greater share of material and human resources, expertise, and time than those whose needs are less pressing. However, whilst the distributive justice credentials of triage should not be overlooked, there were other principles in play for Larrey when he advanced the principle of systematic sorting of battlefield casualties. Larrey was equally interested in ensuring the fighting efficiency of Napoleon's Grand Armée. Larrey recognised that there was benefit to be gained by treating and returning to active service those able to fight. In this way a consideration of the outcomes of resource allocation sat alongside principles of justice as to each according to need. The outcome-focused and consequentialist aspects of triage rise in importance when triage is used in disaster contexts.

In normal times, triage can be seen as an approach that seeks to maximise the best outcome for an individual who is sick or injured but also in competition for treatment and care from others who are also sick and injured. Triage recognises, and seeks to identify those most at risk of harm and prioritises them over others who are at less risk of harm, or for whom a delay in care or treatment will not be detrimental. Thus, triage can be seen as one response to the problem of codes of professional healthcare conduct and ethics that focus on the needs of a single person yet fail to accommodate the reality of multiple patients in competition for the same resources. Triage accepts that there has to be a choreography of care delivery between multiple people in need, each with different degrees of need. Triage also seeks to maximise outcomes across multiple people in need, directing resources to those most at risk and identifying those for whom a delay in attention will not be detrimental in terms of the primary goods of survival, health, and vitality.

The intention to match resources to need with the purpose of maximising outcomes requires clinicians to exercise stewardship over the resources at their disposal in order to ensure benefit to patients and the avoidance of wasteful resource expenditure on interventions that provide no benefit (Larkin, et al., 1998). In this way, triage can be seen to promote the efficient use of resources, avoiding wasteful over allocation, and directing resources to where it has greatest potential benefit. It could be argued that the tie between efficiency and triage has grown in prominence, possibly due to a recognition that even in normal-times healthcare practice, resources are limited and thought needs to be put into how finite resources are to be employed. There is risk that stewardship is misrepresented as rationing. However, as Larkin et al (1998) point out, stewardship is not the same as rationing.

Rationing can be seen to be the intentional limiting of the provision of beneficial interventions and care which stands in contrast to stewardship, where the intention is to address all of the needs present as effectively as possible within the resources available.

Triage, prioritisation, and stewardship of resources offer a counter to the primacy of the isolated dyadic relationship between a healthcare professional and a single individual in need. Triage, prioritisation, and stewardship recognises that there are in fact multiple healthcare professional/patient dyads that exist simultaneously and in competition for the same resources. Triage offers a mechanism whereby the overlapping needs of separate individuals can be compared and prioritised so as to ensure that those most in need receive that proportion of treatment and care resources appropriate to their need, and in a timescale that matches the urgency of the individual's needs. Thus, whilst triage has a strong justice pedigree, it also seen by its advocates as an approach that maximises benefit across multiple calls on necessarily finite healthcare resources.

From this brief account of emergency triage in normal times it can be seen that such triage seeks to prioritise those most in need and to match resources to need in order to maximise survival and reduce morbidity at an individual patient level. Further, triage can be used to set priority levels for individuals within a group of patients whose needs compete. In normal times, triage operates with a presupposition that there are sufficient resources to meet the needs present, where the worse outcome for any individual person seeking help is a delay in the provision of care and treatment with the proviso that any such a delay does not negatively impact the patient's survival or recovery from illness or injury. However, the exceptional circumstances that arise in disasters challenge this presupposition. If it is accepted that in disasters there is a mismatch between need and the resources to respond to such need on such a scale that need is overwhelming, then questions can be asked as to whether or not normal times emergency triage is appropriate in disasters. In response to such doubts, normal times emergency triage has been reconfigured for disasters, frequently being termed 'mass-casualty triage'.

Triage in disasters

Within the context of healthcare, disaster contexts are characterised by an imbalance between overwhelming need and an inability to respond to the totality of this need. Disaster contexts can arise when there is an increased demand for medical aid and nursing care, and/or a loss of healthcare resources. In such contexts, life is no longer normal, everything changes, including triage. As noted by Wagner & Dahnke *"the goal of triage changes drastically during a humanmade, natural, or public health disaster, because resources quickly become scarce"* (Wagner & Dahnke, 2015, p. 303). When writing about disaster triage, there is a wide appreciation that disaster triage is radically different to triage practiced in normal times (British Medical Association, 2017; Challen, et al., 2007; Geale,

2012; International Council of Nurses, 2009; Mackway-Jones, 2012; O'Meara, et al., 2007; Sztajnkrycer, et al., 2006). This radical difference is both operational and conceptual.

The changed operational nature of triage in disasters and mass casualty events is clearly revealed when comparing disaster triage systems with normal times triage systems such as the Manchester Emergency Triage system. Recall the nature of the Manchester Emergency Triage System outlined above; a manual of 200 pages covering fifty different patient presentations with accompanying decision trees and guidance. Systems such as the Manchester Emergency Triage System are nuanced with a high degree of discrimination. To follow such a developed system well takes time and also a degree of expertise. Take for example the questions presented above with respect to the patient presenting with neck-pain. Questions regarding purpura and non-blanching rash require time to undertake a thorough top to toe examination of the patient. Such questions also require the exercise of clinical judgement to identify purpura and non-blanching rashes and distinguish these from other skin blemishes. Similarly, knowledge and understanding of what constitutes meningism and how it manifests itself is required to fully apply the Manchester Emergency Triage System to a person presenting at the emergency department with neck-pain. However, within the context of disasters, time and resources may restrict the ability to undertake a full evaluation of a patient's condition as per a system such as the Manchester system. Further, there may be a realisation that commitment of time to undertake a thorough examination of a few casualties can only be achieved at the expense of the evaluation of others. An additional factor to consider is the availability of expertise and whether or not those that respond to disaster victims possess the knowledge and skills to make effective use of a system such as the Manchester Emergency Triage System. In response to these limitations, alternative triage systems have been developed that are rapid, simple, require minimal technical equipment, and almost no clinical knowledge beyond that of basic first aid. One such system in use is START – Simple Triage and Rapid Treatment (Schultz & Lieser, 2012). The whole of the START system can be condensed into five questions:

1. Is the casualty walking?
2. Are they breathing?
3. What is their breathing rate?
4. Is there adequate circulatory perfusion?
5. Are they able to obey commands?

Answering these five questions relies on empirical facts that can be readily gathered through a rapid assessment that does not require any equipment beyond an ability to time a breathing rate or time

capillary refill. The figure below is a flow diagram of the START system; easy to follow, clear and unambiguous[18] (see Figure 1).
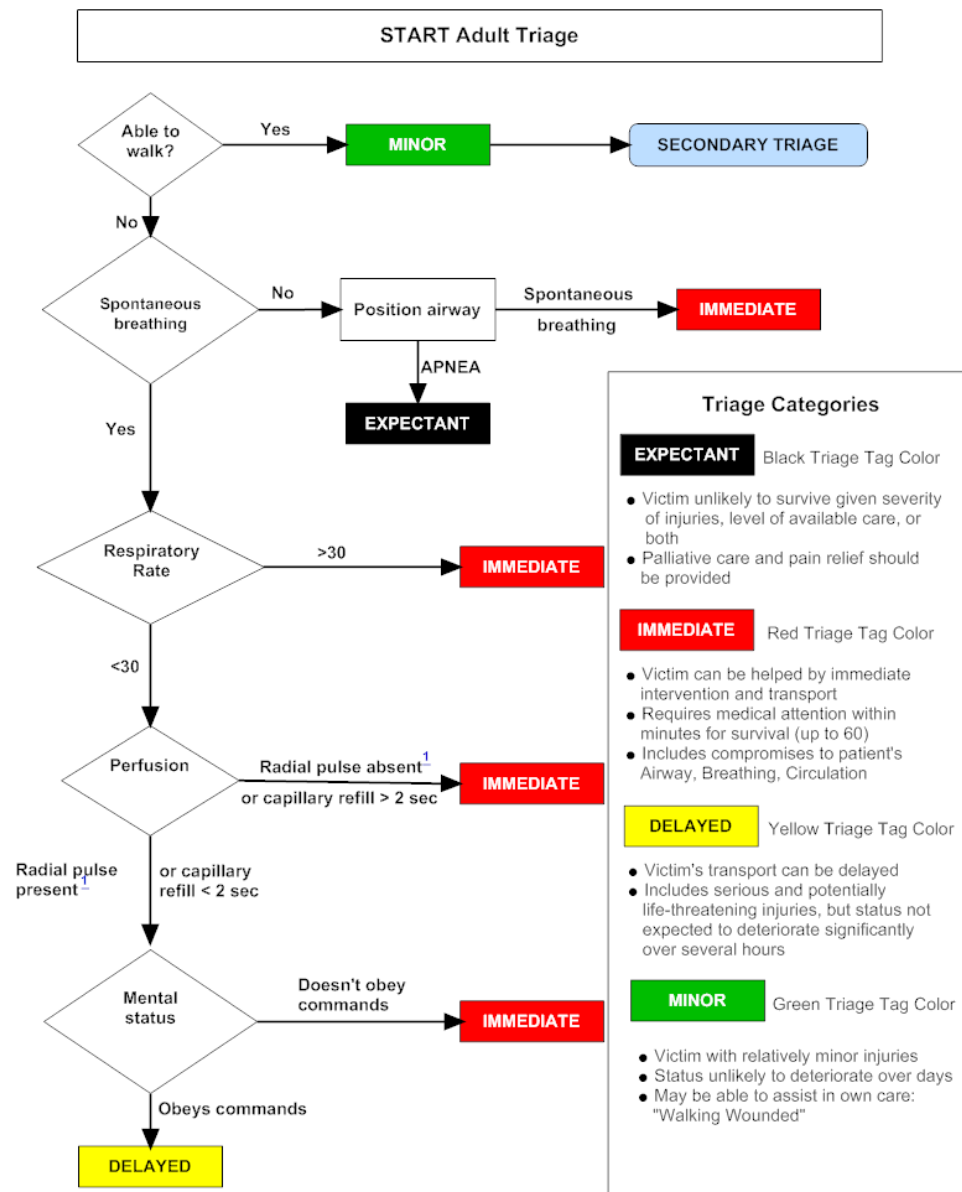
Figure 1 START flow chart (US Department of Health and Human Services, 2021)

Whilst START is one example of a disaster-specific triage system, other exist for example CareFlight and the Triage Sieve, and others exist that are modified for children, for example JumpSTART (Iserson, 2012; Moons, 2019; Schultz & Lieser, 2012). Irrespective of methods use,

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[18] Capillary refill time is the time taken for a distal capillary bed, such as that in the bed of the fingernail or the skin over the sternum, to regain colour and reverse blanching after pressure has been applied.

patients, casualties or disaster victims will end up in one of four categories that determine their priority for care:

1. Immediate, those who are critically ill or injured where delay "cannot be tolerated".
2. Urgent/Delayed, seriously ill or injured but can tolerate a delay of between thirty and sixty minutes.
3. Minor, delay is unlikely to affect outcome.
4. Dead, those making no respiratory effort despite simple interventions to open the casualty's upper airway.

The first three priorities appear, at first glance, to be uncontroversial and reasonable. Using a set of empirically based questions, disaster and mass casualty triage systems such as START appear to be able to allocate casualties and disaster victims to a priority category reliably and consistently. If one were seriously injured or gravely ill, it appears as though you could have confidence that you would be assessed quickly, the seriousness of your condition identified and that you would be moved up the queue to a top priority. It also looks as though the number of people able to undertake effective triage and prioritisation is increased. Rather than relying on the availability of nurses, doctors and paramedics experienced in emergency care, it now looks as though any nurse or doctor irrespective of clinical specialism should be able to undertake effective prioritisation. Use of such simplified disaster triage systems also opens up the possibility that workplace first-aiders, fire fighters, police officers, volunteer first responders etc., should all be able to undertake patient assessments that will identify those most in jeopardy. All seems well, but there are problematic issues with a system such as START that turn on the care of the nearly dead.

When a full normal-times triage system is applied, casualties fall in to one of three prioritisation groups, immediate care needed now to save life and limb, those who need urgent care but whose care can be delayed a matter of minutes without detriment, and finally those who require care and treatment but can wait some time. By contrast, when triage systems designed for disasters are explored, we see the introduction of at least one, and more commonly two, additional categories. If

is examined more closely we see a fifth category employed in addition to the four categories of immediate, urgent, delayed, or dead. This fifth category is *expectant.* This fifth category is applied to the *"victim unlikely to survive given severity of injuries, level of care, or both".* Other texts introduce a further category of 'dead' that is used to identify those casualties who continue not to breathe following simple physical manoeuvres such as head-tilt-chin-lift and turning the patient onto their side (Iserson, 2012; Mackway-Jones, 2012; Schultz & Lieser, 2012; Giannou & Turnbull, 2019). Therefore, from the perspective of a disaster victim one may be fortunate enough to be prioritised as in need of immediate treatment and care, or identified as a priority case that can wait a few minutes, if

you are not seriously sick or injured – quite literally the walking wounded according to START – then you wait. Alternatively, you could be unfortunate enough to be classed as dead or 'expectant'. It may be worth understanding some of the practical implications of such a system of classification by considering the fate of those deemed 'dead'.

Disaster triage and the dead

In disaster and mass casualty triage systems such as START the decision as to whether or not a casualty is identified as 'dead' turns on one question; is the casualty breathing with an open airway[19]? In normal times, opening the airway of a casualty involves the application of a step-wise hierarchy of interventions from the most simple and non-invasive through to what could be termed surgical interventions. The following figure is one example of a stepwise approach over increasingly complex airway management interventions (see Figure 2).
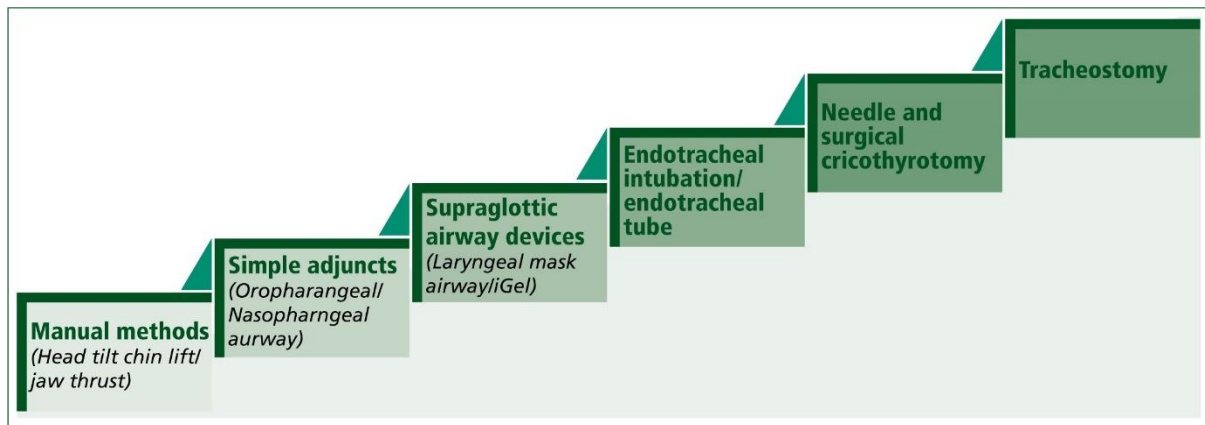
Figure 2 Intervention hierarchy for airway management (Cross, 2018))

In normal times, the approach to the patient who is not breathing is to move from left to right progressing up the staircase of ever more complex interventions until they arrive at a level of intervention that is effective in ensuring the patient's airway is, and remains, open. Now compare this six-stage hierarchy to the airway management guidance found within the manual for Major Incident Medical Management and Support (MIMMS), the United Kingdom's 'industry standard' training course for healthcare personnel responding to mass casualty and disaster situations:

> "A 'quick look' will assess if a patient is not breathing. If this is the case the airway is opened with a simple manual manoeuvre (head tilt and chin lift or jaw thrust if cervical trauma is suspected) and the patient reassessed to see if breathing has started. Patients who do not breath despite airway opening are dead."

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[19] Here, airway is taken to be mouth and nose and throat down as far as the voice box/larynx, sometimes termed the upper airway to distinguish it from airways below the level of the voice box such as trachea and bronchi.

If a comparison is made between this excerpt taken from the MIMMS manual and the step-wise hierarchy of normal times airway management taken from Cross above (Cross, 2018), then something odd seems to have happened. To illustrate these oddities we can construct an imaginary, but highly believable situation involving twins Barney and Clive.

Th twins Barney & Clive

Barney and Clive live in California, they are in their late sixties but generally fit and well. On Tuesday Barney suffers a cardiac arrest at home. Barney collapses and is rendered deeply unconscious. He is attended by an experienced paramedic crew who quickly establish that Barney has stopped breathing. Using a stepwise approach, they work upwards through the hierarchy of interventions until a level of intervention is achieved that ensures Barney has an airway that is securely open, or patent. The attending prehospital care personnel eventually settle on endotracheal intubation to maintain the patency of Barney's airway. The prehospital care team initiate cardiopulmonary resuscitation that is continued all the way to the local hospital emergency department where Barney is hand over to the next level of care. Upon arrival at the local emergency department the hospital staff use a normal-times triage system and prioritise Barney as in need of immediate treatment and care, on the basis that he requires immediate interventions to prevent him dying. All is well.

Consider now Barney's twin Clive. It is now Wednesday, the day after twin Barney was rushed into hospital following his heart attack. On this particular Wednesday an earthquake hits the area of California where the twins live. Clive is struck by falling masonry leaving him with a serious head injury that renders him deeply unconscious. In this unconscious state he is struggling to keep his airway open by himself. He is rushed by a neighbour through the rubble strewn streets to the local hospital. The local hospital has been built to earthquake-resistant building codes and is still functioning well, but receiving many seriously injured casualties. By the time of his arrival at the emergency department, Clive has stopped breathing. In the emergency department START is being used to prioritise the large number of earthquake casualties that keep arriving. Clive is placed on a cot and a nurse, realising Clive is not breathing, performs a head-tilt-chin-lift manoeuvre to open Clive's airway. Clive continues to not breath. The nurse tags Clive as 'dead' and passes to the next casualty.

When we compare the treatment Barney and Clive have received, we might struggle to understand what is going on in this situation. It seems to be the case that if Clive had suffered his head injury a day earlier, he would have benefitted from an extensive range of life saving clinical interventions like his twin, however today, earthquake-Wednesday, these potentially lifesaving interventions are withheld. And also, in a similar fashion if Barney was unfortunate enough to suffer a cardiac arrest on

earthquake-Wednesday, presumably, he, like his twin, would receive care limited to a head tilt-chin-lift and then be identified as dead, even though, as his care on Tuesday shows, there is a whole range of life saving interventions that could be initiated but are now withheld. Even more oddly, if Barney had his cardiac arrest on the Wednesday morning before the earthquake struck, then presumably he would have received the full hierarchy of life saving interventions. Yet if Barney had his cardiac arrest say three hours later during the earthquake, then, despite his need for life saving care being just as great as that of his pre-earthquake self, Barney's care would now be limited to a simple manual airway manoeuvre and a subsequent triage classification as dead.

The more the situations of Barney and Clive are compared and the more attention placed on the timing of events, then the more questions arise. For both Barney and Clive, their situations are equally perilous and, if Larrey's original principles of triage are applied, equally deserving of urgent care. Applying the principles of the just distribution of healthcare resources according to need then there is a strong argument that both Barney and Clive should receive equal levels of care and attention, just because their needs are identical. But, as sketched above, this does not seem to be the case. Barney appears to be privileged in the care he receives when compared to Clive who has the misfortune to require care when an earthquake has occurred. Yet it is unclear how the occurrence of an event such as the earthquake alters the status of either Barney or Clive. Both twins are equally unable to breath due to problems maintaining the patency of their own airways, so why should an earthquake result in one receiving care appropriate to need whilst the other receives a level of care that probably results in his death?

Not only are there ambiguities as to why an event such as an earthquake should lead to the withholding of beneficial interventions from those in need, but questions can also be asked of the relationship between those in need of healthcare and healthcare professionals. Presumably, the professional obligations not to harm and the duty to do good are not extinguished by disaster events such as earthquakes. The care that twin Barney receives on Tuesday is an expression of this professional caring relationship; the prehospital care team and emergency department personnel work in concert to provide beneficial care appropriate to Barney's needs and protect him from harm. In contrast, on the Wednesday after the earthquake, these same healthcare professionals provide a minimum of care to Clive that does not match Clive's needs. Thus, it is difficult to argue against the opinion that the healthcare professionals on duty on the day of the earthquake have failed to fulfil their obligation to do good for Clive; they have failed to provide him with the full range of potentially beneficial interventions to maintain his compromised airway. Yet some may counter that the exceptional circumstances that arose in the disaster made it difficult for healthcare professionals to fulfil their professional obligations. Returning to issues raised previously, the healthcare professionals on duty may regret the circumstances that they found themselves in, but guilt would not be appropriate as no wrong has been committed. As Hursthouse notes, arguments can be presented that agents who commit terrible acts in dilemmas that are not of their making,

guilt is inappropriate as they have solid grounds for justifying their terrible act in the circumstances they found themselves in:

> "*She is quite blameless (given that she is faced with the dilemma through no fault of her own), and how could guilt or remorse be appropriate if she is blameless?*"

<div align="right">(Hursthouse, 1999, p. 76)</div>

As a response to arguments that healthcare professionals should not be blamed for any shortcoming in the exercise of their professional duties in the unenviable circumstances found within a disaster, we can ask a Kagan type question of the care Clive received on earthquake-Wednesday; *'Would Clive have been better off if the emergency department staff had not reacted to his situation in the way that they did?'* The answer would seem to be yes, Clive would have been better off if the emergency department had acted differently and not limited their care to a single, simple manual airway-management manoeuvre. Some may go further and suggest that, through their inaction, the healthcare professionals have made Clive's bad situation worse; their non-doing has created harm where foreseeable harm could have been avoided.

We can also apply Feinberg's differentials between non-doings and omissions to the decision of the emergency department medical team not to progress Clive upwards through the hierarchy of airway management. That is to say the emergency department medical team did in fact not proceed beyond a simple physical manoeuvre to secure Clive's airway despite the opportunity and ability to do so (remember the proviso that the hospital was still functioning well after the earthquake), that they knew Clive was in peril and there was a reasonable expectation on emergency department staff to save the life of a patient in mortal danger, as demonstrated by the care and treatment given to twin Barry the previous day (see Feinberg (1984) pp159 - 161). Calling on a view that harm can be occasioned through non-action it is difficult to resist the conclusion that the emergency department medical team healthcare professionals have failed to protect Clive from the most significant harm, that of death. Moreover, the failure to save Clive is not only an instance of harm occasioned through non-action, the failure to act is also a morally culpable omission.

It is unclear as to why the occurrence of a physical event such as an earthquake should lead the emergency department team to a radically restructure the care delivered to those most in need. Yet defenders of the emergency medical team could argue that the situation after the earthquake was exceptional and that they did in fact do the right thing. Yet if we take a step back and compare the care delivered on the day of the earthquake with the care delivered in normal times we see a stark contrast, on the day of the earthquake, a seriously injured individual was denied the treatment and care needed to keep them alive; this is a radical departure from normal times care that allocates resources in proportion to clinical need, allocating the greater proportion of resources to those in most pressing need. This point

suggests healthcare delivered in disaster contexts maybe fundamentally different from that delivered in normal times, a point worth exploring.

The ethical orthodoxy of maximising aggregate benefit in disaster healthcare

Earlier a fundamental question was asked about the form of healthcare as delivered in disaster contexts as compared to normal life. This question can be presented as *"What are the stated aims of healthcare in disasters; do these disaster related aims coincide with, or diverge from, the aims of medicine and nursing as practised in non-disaster contexts?"*. An initial affirmative answer was presented; *"Yes the stated aims of healthcare in disasters do coincide with the aims of medicine and nursing as practised in non-disaster contexts, namely the preservation of life and the reduction of morbidity"*. However, by considering just one element of disaster healthcare, specifically the management of those who are not breathing and have difficulty maintain the patency of their own airway, we might have cause to reject the essential coherence between normal-times healthcare practice and healthcare as delivered in disaster contexts. Just by considering how people with problems with their breathing and airways are managed in disaster triage systems, we have at least one point of divergence between healthcare as practised in normal times (Barney on normal-Tuesday) and healthcare as practised in disaster contexts (Clive on earthquake-Wednesday). This example of an operational difference in how certain people in need of healthcare in a disaster are managed is a concrete realisation of a deep shift in perspective and values that underpin healthcare practice in disasters. As presented earlier in this chapter, the stated aim of disaster healthcare is to maximise the numbers who are saved: *"At present in emergency preparation, the operating moral rule for rescue professionals ... is Save the Greatest Number"* (Zack, 2009, p. 26). Further, it is recognised that maximising the numbers saved may result in those most in need of aid not receiving lifesaving treatment and care. To continue a quote from the World Medical Association's ethical guidance for those working in disasters that was introduced earlier:

> *"The decision not to treat an injured person on account of priorities dictated by the disaster situation cannot be considered an ethical or medical failure to come to the assistance of a person in mortal danger. It is justified when it is intended to save the maximum number of individuals."*

(World Medical Association, 2017, sec. 8.2.1)

Disaster triage seeks to direct resources to where they are most likely to have the greatest benefit and away from those in need whose survival is doubtful or whose survival can only be achieved at the outlay of a large proportion of relatively limited resources (Hick, et al., 2012; Geale, 2012). In disaster contexts such a redirection is seen as necessary to maximise the aggregate good across the whole population of those in need, rather than necessarily maximising the good of an individual person in need (Barilan, et al., 2014; Challen, et al., 2007; Jennings & Arras, 2008; Zack, 2009). This redirection requires a significant reorientation of perspective for the healthcare

professional that moves attention away from a consideration of what is best for the sole person in need in front of them to considerations of how best to maximise aggregate benefit across the whole population of those in need (Veatch, 2005). The ethical justification for this reorientation draws on a consequentialist ethical paradigm of maximisation of survival and minimisation of morbidity. The consequentialist and broadly utilitarian character of disaster triage is so deeply ingrained in disaster healthcare that disaster triage has been termed a *"utilitarian parable"* (Baker & Strosberg, 1992, p. 116). So pervasive is the consequentialist approach to disaster triage, and disaster healthcare provision in general, that it is justified to identify it as the orthodoxy of disaster healthcare ethics. To put it clearly, the orthodox approach to healthcare in disasters is to ensure resources are used to maximise aggregate survival and minimise morbidity and not necessarily provide the care and treatment required by those most in need.

If we return to Barney and Clive, we can see how this orthodoxy can be used to explain the different care experienced by the twins before and after the earthquake. On Tuesday, normal-times ethical practice favours the maximisation of individual benefit, hence Barney receives the full package of escalating care appropriate to the dire situation he is in. By contrast, following the earthquake the exception of the disaster context intervenes and there is a shift to a consequentialist approach that seeks to maximise aggregate benefit. As a result, emergency department healthcare professionals move the allocation of resources towards those most likely to benefit, in practical terms an allocation away from Clive to others who are more likely to survive, or whose survival can be achieved with a lower outlay of necessarily restricted resources.

With this consequentialist nature of disaster healthcare practice in mind, we can re-run Feinberg's differentials between a non-doing and morally culpable omission. So, in the case of Clive on earthquake-Wednesday, the emergency department medical team:-

- did in fact not proceed beyond a simple physical manoeuvre to secure Clive's airway despite the opportunity and ability to do so (normally an omission but potentially merely a nondoing)
- knew Clive was in peril,
- however, the normal times professional duty to maximise benefit to an individual in peril was substituted by a disaster-context duty to promote the greatest good on aggregate, even if this is at the expense of the benefit to an individual.
- In this way, the nondoing of the emergency department staff in not saving the life of Clive remains a nondoing and does not become a morally culpable omission.

One could go further and claim that a consequentialist paradigm that locates the good in maximising aggregate benefit not only justifies the exclusion of Clive from treatment and care, but such a paradigm demands it in order to maximise benefit to a large pool of others also in need. If this

argument is accepted, then it can be suggested that many of the ethical dilemmas faced by healthcare professionals in disasters are not in fact dilemmas but questions of uncertainty. That is to say, a single ethical principle holds a pre-eminent position, but there may uncertainty as to the course of action that will realise this principle in the real world. For those in a disaster, the principle of maximising aggregate benefit holds a pre-eminent position – however, it may be unclear to those in a disaster as to what actions will bring about this maximisation leading to uncertainty as to what course of action ought to be followed. This tentative conclusion challenges the proposition that ethical dilemmas are real in disasters, for as Marcus argues, ethical dilemmas do not arise in a single-principled moral system such as maximise survival and minimise morbidity (Marcus, 1980). Any difficulties that do arise are not real dilemmas that pit one ethical principle against another, but rather are instances of uncertainty where doubt exists as to how to maximises benefit. In chapter two, the problems faced by healthcare professionals in disaster contexts were presented as a conflict between doing A or B but not A and B. Applying a consequentialist maximisation paradigm to disaster healthcare, the problem is resolved; do the A that maximises benefit. Such a resolution then only leaves the question of 'What A will realise maximum benefit?' to be resolved. In such cases, the uncertainty becomes less a problem of moral choice and more a question of epistemic certainty or doubt (Bykvist, 2017).

The intention to maximise aggregate benefit can be seen at play in a series of cases developed in chapter four that focussed on the move of a health clinic from one small camp to a larger camp (see *Do-Intend* above). In some of the presentations of this case, the decision to remove the benefit of the health clinic from a small camp population was justified on the grounds that the clinic could be made accessible to a larger population in a different camp. Such a move would maximise the aggregate benefit even though the small camp population would be denied some benefit. In this way, any harm occasioned is the price that needs to be paid in order to maximise benefit. However, the case of the removal of a clinic from a small population in order to benefit a larger population raises important issues with respect to values and duties we take to be constitutive of normal times healthcare practice.

Some initial disquiet with a maximisation ethic

When considering the removal of a health clinic from the smaller camp to benefit a larger camp population, some might point out that you have already made a commitment to the smaller camp through the provision of a health clinic. This commitment creates a duty of fidelity to the smaller camp. Removing the clinic can be seen as a breach of the duty of fidelity. In the case of the two different size camps and the health clinic some may argue that there is a significant difference between deciding from the outset to place a clinic in the larger camp, a decision that makes the life of the small camp population no worse than it was; and a decision to remove an established benefit from the small camp in order to generate greater benefit elsewhere, a decision that makes the life of those in

the smaller camp worse than it was. In this way, the principle of maximisation of benefit can conflict with the professional duty of fidelity and non-abandonment of those already receiving care.

This problem can also be seen to apply to the treatment of the twins Barney and Clive. So far, we have explored the possibility that Clive may be denied care on earthquake-Wednesday because he is close to death and resources to save him may maximise a greater overall benefit if directed at other sick and injured casualties. But what about Barney? On earthquake-Wednesday, Barney is already in hospital receiving possibly expensive and complex care following his cardiac arrest on normal-Tuesday. If the maximisation of aggregate benefit is deployed to guide clinical decision making, then there is no guarantee that Barney's care will be continued. It may be decided that the resources being laid out to treat Barney could be redeployed to treat more people and generate a larger 'mass' of benefit elsewhere. Some might counter that there is a professional duty of fidelity owed to Barney by those who have started to care for him. Whilst others, applying a maximisation of benefit principle, may argue that the ongoing care of Barney should be restricted or even removed in favour of those whose survival is more certain or whose survival can be obtained with a lower outlay of resources. It appears as if a single-principle disaster consequentialist orthodoxy of maximisation leaves little room for the professional duty of fidelity to those already being cared for or receiving treatment (Moskop & Iserson, 2007). Applying the consequentialist and maximisation principles of orthodox disaster healthcare may require that the care of the severely sick and injured be stopped in favour of several others who stand to benefit from the resources that would otherwise be committed. Some may be uncomfortable with this, whilst others may make a claim that a new professional duty supervenes in disasters, that being the duty to save most lives even at the expense of others in grave need of care and treatment. The rather stark reality of this reorientation is presented by Kipnis:

> *"It is easy to accede to the everyday moral imperative to accord the greatest attention to the worst-off victims … On any ordinary day, clinicians would do whatever it took to save this patient's life. Today she must be black-tagged as 'expectant' and left to die, even as those with lesser wounds are treated. Necessary though they may be, these counterintuitive and unsympathetic choices can strain the sensitive conscience. Hence the need for firm professionalism."*

(Kipnis, 2003, p. 63)

It remains to be seen whether or not Kipnis' views of what constitutes *"firm professionalism"* in a disaster context is desirable or even practically achievable in disasters.

Disaster triage, those with greatest need and hard questions in disaster healthcare

To this point we have mainly considered those who, by the lights of disaster triage at least, are dead or who are nearly dead but saveable. However, applying a consequentialist and maximisation paradigm in disaster contexts will also have consequences for those who are alive but in great need.

For these people, their survival and recovery may call for the expenditure of large amounts of what limited resources are to hand. Within a maximisation paradigm where resources are constrained a constant question arises as to how limited resources should be allocated to secure the greatest benefit across the whole disaster affected population. Maximising aggregate benefit may maximise the benefit for an individual, but not necessarily so. That is to say, whilst maximising aggregate benefit across the whole of the disaster affected population is not necessarily inimical to achieving what is best for an individual, such maximisation does not guarantee that what is best for an individual person in need will be realised. Pursuing the maximisation of aggregate benefit does not exclude the possibility that some people may be judged to be just too costly to treat.

The case of the twins Barney and Clive focussed on one specific issue, that of categorising someone as dead or alive on the basis of whether or not they are breathing following minimal emergency care. However, if we return to the START disaster triage system above (see Figure 1), the category 'expectant' is applied to those victims who are unlikely to survive given the severity of their injuries or illness, level of available care or both. Drawing on a consequentialists and maximisation of aggregate benefit position, an argument is put forward that when resources are limited, they should not be wasted in futile efforts to save lives that cannot be saved, or where the likelihood of success is low. Rather, the limited resources available should be directed towards those with a greater chance of survival.

On first reading, many would agree with the notion that resources should be directed to where they can make a difference and should not be expended on those who are unlikely to survive. And indeed Larrey's original formulation of triage placed those mortally wounded, i.e. those unlikely to survive, as the lowest in his prioritisation system (Baker & Strosberg, 1992). However, there is a problem with this apparently common-sense approach. The problem is one of survivability. As therapeutic technologies and pharmaceutical developments advance, we are ever expanding the survivability of what, until quite recently, would have been mortal injuries and fatal illnesses. Case fatality rates for epidemic and pandemic diseases such as Cholera, Ebola Virus Disease, and SARS-CoV-2 continue to fall as therapeutics and effective supportive measures continue to increase the survival rates for these diseases. Similarly, experience from recent conflict zones have demonstrated how soldiers with blast injuries involving the loss of multiple limbs combined with brain and chest injuries are still capable of having their life saved (McGuire, et al., 2019).

The story these developments tell us is of an ever-shrinking population of those who are 'mortally wounded' and beyond rescue. In this way, dismissing disaster victims as being beyond saving becomes less and less tenable. It can be seen that advances in emergency care, surgery and therapeutics is squeezing down the numbers who are beyond effective salvage. Yet at the same time,

these lives can only be secured through the expenditure of considerable resources in both the short-term emergency phase, and over the long-term rehabilitation phase as those saved moved towards recovery. Yet, in a disaster context, there is a relative scarcity of resources and any outlay of resources incurs an opportunity cost in terms of care and treatment denied to another also in need. This appreciation of opportunity cost combines with a principle of maximising aggregate benefit in such a way that some lives are seen as too costly to save (Giannou & Turnbull, 2019; Hick, et al., 2012; Iserson, 2012; Wagner & Dahnke, 2015). Indeed, this position is recognised by the World Medical Association in their statement on medical ethics in disasters; *"8.2.1 It is ethical for a physician not to persist, at all costs, in treating individuals 'beyond emergency care', thereby wasting scarce resources needed else-where"* (World Medical Association, 2017).

The appreciation of the reality that in a disaster context, care and treatment dedicated to one person coincidentally deprives another person of care and treatment, can be seen to push to prominence the principle of efficiency. Efficiency is revealed in the desire to secure maximum aggregate benefit for the outlay of a fixed, and in the case of a disaster context, limited resource. The efficiency emphasised in disaster healthcare stands in contrast to normal times care that emphasises effectiveness. That is to say normal times healthcare seeks to ensure those in need receive the care and treatment most likely to realise recovery, disease management or symptom relief. The principle of efficiency in disaster healthcare practice can be used to argue that fifty casualties with simple upper limb fractures should be the focus of assessment, fracture reduction and stabilisation, and discharge rather than dedicating most, if not all, orthopaedic resources available to a single disaster victim with multiple complex fractures. This illustration reveals one aspect about efficiency in disaster healthcare, it is all about the numbers, i.e., save as many as possible, treat as many as possible. Whilst the aims of efficiency area laudable, there is a troubling consequence of championing efficiency. Under the principle of efficiency there is no guarantee that a person in need will receive the care and treatment that matches their needs and condition. Applying a principle of efficiency provides no guarantees that some disaster victims will not be seen as too costly to treat or save. The deliberate withholding of healthcare even though there is the ability and capacity to provide care, may be one of the implications of the maximisation of aggregate good.

Disquiet with principles of maximisation of outcomes in disaster healthcare

Normal times healthcare has previously been described as a choreography that matches resource to need. In disasters, we see a deliberate shift whereby resources are not necessarily directed to those most in need but are withheld or redirected towards others, in order to maximise aggregate benefit. We can see ratioing at play if we return to the experiences those delivering health care in disaster contexts that were presented chapter two. If we consider the IDF field hospital team deployed

following the Haiti earthquake, they deliberately altered their admission criteria to exclude those who could benefit from surgical care, but whose ultimate welfare could only be secured through the allocation of large amounts of limited resources:

> *"we believed it would be incorrect to use our limited resources to treat patients with such a minimal chance of ultimate rehabilitation. ... We needed to optimize the utilization of our ICU [Intensive Care Unit] beds. ... The practical implication of this prioritization scheme was that hospitalized patients who were deemed to have a small chance of survival were not likely to be treated in the ICU"*

(Merin, et al., 2010, p. 2)

The decisions taken by the IDF field hospital team are not isolated and recur in the experiences of others who have found themselves in a disaster, including those who found themselves confronted by the SARS-CoV-2 pandemic in early 2020 (Senni, 2020; Turale, et al., 2020). These realities illustrate the practical consequences of the application of principles that guides choices so that aggregate benefit is maximised, and that configures such benefit as clinical outcomes such as survival and recovery. For those that advocate a consequentialist approach to ethics in disasters such realities are the undesired but unavoidable price that has to be paid in the pursuit of maximising aggregate benefit. For others, the costs incurred in lives not saved or suffering not relieved or recovery not assured as the numbers saved are maximised, or aggregate morbidity minimised, may be too high. The difficult question of how aggregate benefit and costs to individuals are to be balanced is discussed in more detail below.

Previously, questions were asked regarding the ability to gain consent in disaster settings. A further area of disquiet emerges when we consider the place of consent within disaster triage systems. As identified above, consent and a respect for autonomy are taken to be foundational duties and principles of professional healthcare practice (Beauchamp & Childress, 2019; Duncan, 2010; International Council of Nurses, 2012). However, it is unclear as to how, or even if, patients subject to triage are able to express their autonomy. Applying a triage system will categorise a patient on the basis of that system and offer or deny care and treatment accordingly. Applying a triage category to a patient involves no shared decision making, and no consideration for patient preferences, hopes, wishes, or fears, as the triage decision is based on empirically verifiable clinical data within an algorithm. In normal times, this lack of consent and shared decision making between the healthcare professional and the patient may have minimal consequences, remembering that the aim of normal times triage is to match resources to those most in need and to identify those where a delay in treatment and care can be tolerated with minimal negative consequences. By contrast, when considering the application of disaster triage the consequences for individual patients can be devastating; desperately ill or injured disaster victims may be triaged as dead or expectant and offered minimal, if any care. Alternatively, disaster victims may find the care they are allocated is restricted in

order to benefit other disaster victims not known to them, or to benefit hypothetical disaster victims that *may* emerge in the future. Failing to engage disaster victims carries a risk of professional liability for malpractice in knowingly providing care that is not in a victim's best interest or that falls short of the care that could be given even in the straightened circumstances of a disaster, or find themselves liable for charges of abandonment and a breach of a duty of fidelity if care is withdrawn in order to benefit others (Nielsen, 2020). At its most extreme, healthcare professionals may find themselves justifying actions taken in the midst of a disaster that are viewed by some as wilful murder, for example the case of Dr Pou and colleagues during Hurricane Katrina that struck New Orleans in 2005 (Fink, 2013; Nielsen, 2020).

The principle of maximisation of aggregate benefit can not only be applied to questions of prioritisation and resource allocation in disaster contexts, it can also be applied to the situation of healthcare professional in disaster contexts who are both a resource to help and a disaster victim. The application of a maximisation paradigm argues in favour of overriding of personal interests in safety and the welfare of self and family in favour of reporting for, and staying on, duty. In this way, maximisation can be seen to argue in favour of a degree of sacrifice in favour of the promotion of the greater good. If applied rigorously, it is difficult to find a point at which the cost to the individual healthcare professional exceeds the greater good created through their continued engagement in healthcare provision. Upon examining the works of those who advocate a maximisation of aggregate benefit in disasters, no suggestion is made that self-sacrifice, even to the point of death, is required in the pursuit of the realisation of a greater good. However, there is also no suggestion that such self-sacrifice is off the table as it were. Recent experience of infectious disease outbreaks has shown the degree of risk healthcare professionals are willing to take in the face of Ebola and coronavirus/SARS, even to the point of self-sacrifice (see above *Healthcare professionals as disaster victims* p45). The advocates of a maximisation of aggregate benefit in disasters appear to be largely silent on whether self-sacrifice is mandated by the maximisation paradigm. Failing to address the demandingness of the principle of maximisation introduces another point of disquiet for those wary of the wholehearted adoption of consequentialist principles in disaster healthcare.

Before continuing, it is worth noting a further connection between the orthodoxy of maximising aggregate good in disasters and previous discussion points. In chapter three, an overview was presented of what different codes of conduct and professional ethics have to say to those who find themselves in a disaster. It was recognised that the majority of codes were silent on the particular circumstances found in disaster contexts. Yet, it was also noted that if codes were to address a disaster specific issue, this issue tended to be the issue of confidentiality (see above *Confidentiality and consent p72*). All codes emphasise the primacy of a duty to confidentiality in healthcare practice. At the same time, many codes make express mention of the breach of the duty of confidentiality for

public safety and the greater good. Here, we see a core professional duty, maintaining confidentiality, being overridden in order to maximise aggregate benefit, even at the cost to an individual. This overriding has also been seen at play in the overriding of the duty of fidelity between healthcare professionals and those in their care in order to maximise aggregate benefit paradigm. Further, the disaster orthodoxy of maximisation seems to not only allow the overriding of professional duties such as fidelity and confidentiality, but can be seen to go further and demand such an overriding. For those who question the orthodoxy of disaster healthcare ethics, the overriding of deeply held professional obligations in favour of maximising aggregate benefit provides another point of disquiet.

The sole focus on the efficient maximisation of aggregate benefit in terms of survival, recovery, disability etc. appears to exclude other morally significant, but clinically neutral considerations (Barilan, et al., 2014). That is to say, by fixing benefit in terms of purely medical outcomes of survival, disability, recovery and so on, other issues that hold moral or symbolic significance are excluded from the decision calculus. So, for example, when deciding which of two severely malnourished children to admit to a therapeutic feeding centre for life saving nutritional support, the child who is in a comparatively better condition would be prioritised as they stand a better chance of survival, and the resource outlay to achieve recovery would be less than that needed for the more sick child. Additionally, efficiency and rationing weigh against the more sick child where a judgement may be arrived at that admitting this child for care would risk wasting[20] scarce resources needed elsewhere. Thus, the maximisation calculus falls towards the child who is less in need. But what if the more sick child is the lone family member left to a mother who has already lost all of her family in a disaster, and the sick child is all that remains of her family; should we not make extra efforts to save the last remaining family member of the mother, or should the possibility of saving the last remaining family member for a mother be excluded from any decision making around prioritisation? These are presented as rhetorical question that invite a reaction, but a cool reflection on the application of a maximisation of aggregate benefit approach in disaster contexts shows that there is little space within this paradigm for realities that are clinically neutral but symbolic significance, such as being the sole remaining family member left to a mother. It is clear that a tight focus on the medical outcomes of survival and reduction in morbidity leaves little, if any, space for the consideration of other losses that have no clinical relevance.

For the proponents of a maximisation paradigm in disasters, the inability to accommodate morally and symbolically significant issues, and a failure to accommodate professional obligations such as fidelity, are the price that has to be paid to ensure the 'greater good'. Proponents may also take

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[20] In this instance it is recognised that admitting the sick child would benefit the child admitted and not be a wate of resources to that child. However admitting the child potentially wastes resources that could have been used in another manner to achieve a greater maximisation of aggregate benefit.

comfort in the fact that the 'end justifies the means'. Yet serious questions can be asked about such rationalisation; what counts as the 'greater good', in what way 'greater', and 'good' in what way? How can means and ends be effectively co-evaluated such that we can be sure that the end does in fact outweigh those harms that arise from the employment of certain means to realise selected ends? These are serious questions that are rarely asked of those who put forward the broadly consequentialist approach to disaster healthcare. Indeed, upon exploring the writings on disaster ethics, it is very rare to find a sustained critique of the maximisation of aggregate benefit paradigm. Further, the resort to the maximisation of aggregate benefit as a response to the hard choices that arise in disaster contexts is so pervasive that it is not controversial to claim that the maximisation of aggregate benefit paradigm is the only approach that is considered suitable for addressing the ethical difficulties found in disaster healthcare. However, significant questions can be asked about the reasons that underpin the shift to a maximisation framework. One reason given for this shift is the need to maximise the number of lives saved within the constrained resources at one's disposal. However, even the principle of maximising lives saved is open to criticism.

Maximising the numbers that survive

For those holding to the principle that there is a moral obligation to save the greatest number, the justification for the demandingness and costs of maximising the number of survivors can be seen to rest on the assumption that biological survival is an unqualified good – a thing to be maximised. Biological survival is presented as a primary and essential good and the saving of lives provides a moral imperative to healthcare (Batniji & Wise, 2012).

However, dissenting voices can be heard. For Hetzler & Dugdal (2018) maximisation of survival only works if *"medicine were orientated solely towards the control of death and the indefinite extension of life. But it is not"* (Hetzler & Dugdal, 2018, p. 770). Similarly, Nancy Jecker in discussing medical futility sees many efforts at maximising survival as efforts to subdue and conquer nature, rather than efforts to improve the lot of an individual in need (Jecker, 2017). It is true that none of these authors were considering healthcare practice in disaster contexts, however they do question the pursuit of bodily survival as an unqualified good end in and of itself, and by doing so ask questions of the disaster healthcare orthodoxy that seeks to maximise lives saved.

Yet, despite the pre-eminence of survival as an end to pursue in healthcare, the reality is that people die. This gives rise to a significant question for those who promote the maximisation of survival, how much survival should count as success? Within a disaster context, for the pre-hospital rescuers and ambulance personnel, survival might mean survival to hospital; for the medical team in the emergency department, survival might mean survival to surgery, or survival to ward transfer; for patients undergoing surgery, survival of surgery might count as survival; for in-patients, survival may

mean survival to discharge. But what of the individual who 'survives' transportation to hospital, 'survives' the emergency department, 'survives' surgery, and 'survives' to discharge, but dies within two days of discharge from pneumonia or wound infections and sepsis, has this individual truly survived or have medical interventions merely changed the time and place of death for this individual? And what of survival in community healthcare. If a three-year-old child presents to a clinic with acute severe malnutrition and is supported through therapeutic feeding, how many days, months or years are to count as survival? And how are we to predict ultimate survival, considering that the further into the future your project survival, the more contingencies intervene to curtail survival (Kilner, 1981). And what of older people who are closer to the end of their natural life. How do we, or even should we, resist the temptation to favour the survival of younger individuals over older individuals, knowing that to save a child or a young adult will provide us with a greater return in terms of the amount of years of survival? Even though the arithmetic accumulation of survival appears to favour the young over the old we struggle to reconcile such an accumulation with a principle that all lives are of equal worth. These questions are presented here without resolution as a challenge to those who assert that maximising survival in disasters is the primary objective of disaster healthcare.

On first reading, maximisation of lives saved seems straightforward, the end (numbers saved) is empirically verifiable. However, it is the responsibility of those who champion the maximisation of lives saved to explain what counts as survival. It is also the responsibility of advocates of survival maximisation to explain how different survivals are to be summed and totalised, for it is only through such arithmetic that alternative courses of action can be evaluated as to the mass of survival they stand to realise. These questions have real world consequences where persons in mortal danger are denied rescue, treatment, and care. There is a risk that some lives will be seen as too costly to save. Even more troubling is the possibility that some lives will not be seen as worth saving. There seems to be little protection for the frail elderly, those with intellectual disabilities, those with terminal illnesses and those whose continued survival can only be achieved through the ongoing outlay of healthcare resources.

Survival, but to what end?

A further problem for those that advocate for a principle of maximisation of survival and see it as an end that is in itself worth pursuing, is the realisation that continued survival is not only the gateway to human well-being, but also the gateway to suffering. Adopting a single metric of lives saved glosses over the question of *"survival to what?"* (Rossoff & Schneiderman, 2017). Such glossing over ignores issues of quality of life and the ongoing burdens that may follow healthcare interventions undertaken in sub-optimal disaster context, burdens such as post-operative infections, failing surgical implants, and survival with disabilities that require rehabilitation to regain functionality and independence. Several follow up studies have shown the poor outcomes of within-

disaster medical interventions, outcomes that arise long after medical teams have left the disaster area (Nunnerley, et al., 2015; Reinhardt, et al., 2011; Roy, et al., 2005; Smith, et al., 2015). It seems strange that maximising the number of lives saved is presented as the unique ethically right course of action to follow, even though to do so will condemn some survivors to lives that are nasty, brutish, and short. These are not fanciful musing, but issues that confront those that work in disaster contexts when they adopt survival as the sole organising principle for healthcare delivery. Consider the response of the Government of the United Kingdom's response to the 2020 global SARS-CoV-2.

In the first few weeks of the SARS-CoV-2 pandemic in early 2019, the Government of the United Kingdom adopted a strategy of *"Stay home, Protect the NHS, Save lives"*. In the pursuit of saving lives, elderly and vulnerable people were forced into isolation and separated from their family and friends in order to shield them from a potentially lethal pathogen. For some people, such isolation and shielding removed from their lives those things that gave structure, meaning and value to being alive. For many older people and people with disabilities and chronic illnesses, their lives were reduced to a solitary existence within their own homes, isolated from contact with loved ones, family, and friends. For those so isolation and separated, they and their families may well ponder on the question 'survival to what?'. However, there is scant, if any, consideration of such a question by those who advocate for and ethic based on the principle of maximisation of survival in disaster. The orthodoxy of maximisation seems to stop at the metric of lives saved as an end in itself. Yet, if a maximisation of aggregate benefit in disasters is to be adopted, it is beholden on those who advocate for such an approach to consider and provide a response to the question of 'survival to what?'. There is a risk that saving bodies does not necessarily save lives worth living, creating what one commentator described as *"nothing but the mockery of human existence"* (Campbell 2000, cited in Beyleveld & Brownsword, 2001, p. 61).

The consideration of 'to what end' may point to an internal inconsistency in the maximisation paradigm that seeks to maximise survival and maximise aggregate benefit. It may be the case that these two aims are incompatible in disaster contexts. Saving lives may do no more than create lives burdened by suffering, disability, and socioeconomic hardship. For those committed to maximising aggregate benefit, there is a tension between saving lives and creating misery as it were. Earlier an argument of Marcus was presented that dilemmas are apparent rather than real in single-principled moral system (Marcus, 1980). For Marcus, real dilemmas only appear when there are more than one moral principles at play. Applied to those who advocate for a consequentialist and maximisation approach to disaster healthcare there is a now a problem; either maximising survival trumps the quality of the lives saved, in which case, disaster healthcare professionals may create survivors whose lives will be nasty, brutish, and short. Alternatively, a broader conception of benefit beyond mere survival is taken as that which is to be maximised. If this position is adopted, then it has to be

recognised that maximising the mass of biological survival may not realise the greatest aggregate benefit. Failure to realise this possibility and to address it is another point of criticism that can be raised against those who promote a maximisation paradigm in disaster healthcare. The presence of a true dilemma within the maximisation paradigm through the opposition of two principles (maximise survival *vs*. maximise aggregate benefit) introduces the possibility of choice between the maximisation of different ends that are not necessarily compatible. The question of how to choose between these two ends introduces a focus on the healthcare professional who find themselves in disaster contexts but must choose. Indeed, one common feature of the experience of healthcare professionals who find themselves in disasters is the requirement to choose. An exploration of the ways in which an understanding of how to choose and how to choose wisely is a significant question and the chapter below is dedicated to the question of how to choose wisely. However, before exploring such issues, more needs to be said on the maximisation and consequentialists principles that form the orthodox approach to ethical questions in disaster healthcare. For now, we can return to a further area of concern with the project of maximising lives saved, the question of whether or not the numbers should in fact count.

Scepticism over numbers

Despite the intuitive appeal of saving more lives over fewer, serious questions have been asked as to whether the numbers should count in such situations. Taurek famously asked the question *"Should the numbers count?"* in his paper of 1977 (Taurek, 1977). For Taurek, the loss of a life is a terrible thing, but the loss to a person of loosing their life is a maximal loss; if five die, no one person suffers a loss greater than the loss of their life. Following Taurek's line of reasoning, any comparison of saving the lives of a larger over a fewer number of people at risk of dying ultimately resolves into pair-wise matching of two people facing the same loss. That is to say, all of the people who stand to be saved, in both the larger and smaller groups, can make an equal claim on being saved as all their lives are equal and what they each stand to lose through dying is similarly equal (Otsuka, 2004; Sanders, 1988). For those sceptical about a moral obligation to save the greater number at the expense of a smaller number, the fact that an individual is in a larger or smaller group is only coincidental and does not alter the claim of any individual for aid and rescue. Further, favouring larger numbers over fewer numbers, or even an individual, requires self-sacrifice of those in the smaller group or the lone individual.

Earlier in this chapter the case of twins Barney and Clive were presented where Barney suffered a cardiac arrest the day before an earthquake and his twin suffered life threatening injuries during the earthquake. Applying the maximisation of survival paradigm, clinical staff may arrive at the decision that the resources needed to stop Clive from dying could be used to save the lives of five other people,

in which case Clive should not be saved. Not only is this the most efficient use of resources, but it is also the morally obligated course of action, under the maximisation of survival paradigm. However, Clive might disagree. To quote from Taurek [with a name substitution from the original]:

> *""[Clive], to be sure it is a bad thing, a very bad thing, that you should die. But don't you see it is a far worse thing that these five people should die? Now you are in a position to prevent either of these bad things from happening. Unfortunately you cannot prevent them both. So you ought to insure that the worse thing doesn't happen."*
>
> *Don't you think that* [Clive] *might demur? Isn't he likely to ask: "Worse for whom?""*

<div align="right">(Taurek, 1977, p. 299)</div>

The quote above highlights the difficulty of requiring sacrifice on behalf of those in jeopardy in favour of saving a greater number of lives. However, similar concerns over numbers arise if scepticism over numbers is extended to suffering. Fischer discusses the thought experiemnt where a technician suffers an horrific accident in the transmitter room of a television network that is broadcasting the final of the Football World Cup to over fifteen million viewers (Fischer, 2021). The only way of rescuing the technician from excruciating painful electric shocks is to shut down the transmitter for fifteen minutes, thus denying fifteen million viewers fifteen minutes of live coverage of the World Cup final. Those who promote the maximisation of aggregate benefit can argue that the lone technician's excruciating pain is outweighed by the aggregate benefit accrued across the 15 million viewers. Or, using utilitarian language, the sum total of loss of utility by denying 15 million people the pleasure of watching the World Cup final outweighs the disutility of pain experienced by the lone technician. Fischer rejects this arithmetic and asserts that the only valid comparison is between the excruciating pain experienced by the technician and the minor inconvenience of interrupted viewing experienced by an individual viewer; for Fischer, suffering does not aggregate or totalise (Fischer, 2021). This claim seems bold and also possibly counter intuitive. Some may respond that *everything* totalises, both physical objects and more intangible features such as wealth. In this way we can claim that the Jones family have more cars than the Smith family, but that the Smith family have greater wealth. However, let us approach the aggregation of suffering by examining the aggregation of knowledge.

Consider a world-renowned eminent physicist, such as the late Stephen Hawking, addressing a lecture hall of five hundred seventeen-year-old high school pupils who are studying physics for their final high school exams. If the argument of aggregation is true then the possibility has to be accepted that the audience has a greater grasp of facts and understanding of theoretical physics than, say Stephen Hawking. That is to say there is a possibility that the fragments of factual knowledge and partial understand of the five hundred seventeen-year-olds on aggregate match or exceed the knowledge of a great theoretician such as Stephen Hawking. But this seems puzzling because we

cannot identify who possesses this greater knowledge, because every time we pick a seventeen-year-old out of the audience and compare them to Stephen Hawking, their knowledge and understanding seems slight by comparison. Further, if aggregation is always possible, then it would make sense for a space agency to consult the room of five hundred seventeen-year-olds for guidance on how to construct an interstellar probe, rather than an eminent physicist, relying on the fact that the five hundred have, on aggregate a greater knowledge than the eminent physicist. If we struggle to see how individually held knowledge can be aggregated into some form of super intelligence, then likewise we may doubt the claim that suffering experienced by individuals can be aggregated into some form of super-suffering. If we look for this super suffering, we cannot find it as *"no one suffers it"* (Lewis, 1940, p. 116), rather, when we do look, all we find to compare is the suffering of individuals. Returning to the application of an ethical principle of maximisation in disasters, it can be suggested that the minor aches and pains of five hundred or even a thousand bruised and battered disaster victims do not aggregate into some form of super-suffering that outweighs the agony felt by an individual with, for example, extensive burns. The possibility of relieving the aches and pains of a thousand bruised and battered victims does not create a compelling reason to ignore the agony of one in favour of relieving the aggregate super suffering, a suffering that is not experienced by any one individual. Alternatively consider hunger.

Imagine you are one of a group of five who are extremely hungry, not having eaten for four days. Opposite sits a group of fifty individuals who, like you have not eaten in four days. When you look at the larger group and compare it your group of five you might wonder "Is that group ten times more hungry than we are, or are they just as hungry as us?". You then see food being delivered to the larger group and ask the food-deliverer why the group of fifty is being fed. Any reply that that group is more hungry, is experiencing a greater degree of hunger, or possesses a greater aggregate hunger does not seem to make sense as each individual, whether in the group of fifty or five are as hungry as each other. Feeling aggrieved you accost the food-deliver and point to an individual in the group of fifty and ask why that person is getting fed rather than you. The reply comes back "It just so happens that he is surrounded by forty-nine other people who are hungry whereas you have only four hungry companions". You may reply "Just because that fellow over there is sat with forty-nine other hungry souls, does that make him more hungry than me? In what way does sitting with forty-nine hungry people generate a stronger claim on getting fed then my claim for food?" The reply that it all turns on the fact that the other fellow happens to be one of a group of fifty seems rather trite, and failing to give a sound reason as to why you should continue to suffer hunger as others are fed. This case is presented here to question the moral significance of numbers, and why having the good luck to be in a larger group then an alternative group generates a greater claim on aid. However, a maximisation of aggregate benefit makes this claim, the majority trumps the minority. For those who propose a principle of maximisation of consequences in disaster healthcare, serious challenges can be raised

against the presumption that the right thing to do is to achieve some aggregate benefit at a population level even at the expense of the welfare or well-being of other individuals.

It is true that counter arguments to the numbers scepticism of Taurek and others have been provided (Fischer, 2021; Meyer, 2006; Sanders, 1988). It may also be true that scepticism over numbers of lives saved and the possibility or otherwise of aggregation of suffering may not totally defeat the arguments of those that propose that the maximisation of numbers saved, or that the minimisation of morbidity, are the ends to be pursued in disaster contexts. Yet the scepticism remains and the difficulty of reconciling equal claims on aid with the favouring of lives that can be saved with greater assurance and/or less expenditure of limited resources cannot be ignored. Scepticism over maximising aggregate benefit, what it looks like, whether it even makes sense to consider a summation of benefit across individuals, is presented here to provide a push back against the enthusiastic, and at times dogmatic, adoption of the maximisation paradigm that is the disaster healthcare orthodoxy. The assertion that the needs of the many outweigh the needs of the few is taken as certain truth in much of the writing about disaster healthcare. Personally, I doubt this degree of certainty and am uneasy at the neglect of the few that flows from the privileging of the majority.

It may be the case that in some situations maximising the numbers saved or alleviating the moderate suffering of many at the expense of the few is morally permissible, or even obligatory, in disasters. Alternatively, it may be the case that healthcare professionals should value all lives equally, even in disaster contexts, and be obligated to accommodate the equal claims on aid that follow the equal valuing of individuals. This sets up a choice for healthcare professionals who find themselves in a disaster context. Such a choice presents as a dilemma between two equally compelling alternatives. The question now becomes one of not what to do but how to choose. This again shifts attention onto the healthcare professional and how they choose in situations of uncertainty. A shift in attention that has already been signalled when considering the choices that face healthcare professionals in disasters when choosing between saving maximising lives saved or maximising aggregate benefit, again introducing considerations of the healthcare professional as one who must choose.

Proportionalism

Some may be unhappy with the preceding critique of the maximisation paradigm employed in healthcare in disaster contexts. Some may argue that the criticisms presented are based on an unfair and distorted caricature of the orthodox approach to disaster ethics, and that those who work in disasters are rarely monomaniacal maximisers of a restricted set of ends such as survival. A more considered view might be that healthcare professionals are in fact fully aware of the danger of imposing burdens on people by ensuring their survival, are keenly aware that sometimes the needs of the one trump the needs of the many, and that clinically neutral but morally significant factors may

alter the direction of a course of action. Healthcare professionals in disasters may recognised that their choices incur costs to those that stand to benefit from treatment and care, costs that may also be placed on colleagues, and possibly on themselves and their families. Likewise, nurses and doctors may hesitate to see deeply held professional values such as fidelity and patient autonomy overridden as care is rationed and resources reallocated to places and people where a greater return can be gathered for a given resource outlay.

It can be suggested that a more realistic view is that those who find themselves in a disaster are rarely dogmatically set on the realisation of a restricted set of ends, but rather seek to balance the benefits they seek to bring about against the harms they can foresee. Such a view is supported by the reported experiences of healthcare workers who find themselves in disasters, as presented above in chapter two. The idea of balancing benefits and harms and aiming for the achieving the greater balance of benefits over harms represents a position identified as proportionalism. In the words of Finnis:

> *"One is a proportionalist if one offers to identify the morally right choice as the one that will bring about a better proportion of benefits to harms than any other available choice"*

(Finnis, 1983, p86)

The pursuit of a maximisation paradigm may lead to an imperative to realise certain set ends *at any costs*, proportionalism replaces *at any cost* with an appeal to a cool-headed evaluation of costs and benefits. Proportionalism can be seen to more closely reflect the reality of an imperfect world where trade-offs between a range of options and courses of action seem inevitable. Further, it could also be argued that proportionalism sits more comfortably with normal-times healthcare practice. Clinicians are accustomed to weighing the costs and benefits of treatment options, weighing up the pros and cons of different drug regimens, making judgements as to when the time is right for surgery that could cure or kill, and so on. Proportionalism presents the healthcare professional in a disaster context with a familiar moral structure to organise their decision making and allows them to use well practised tools of evaluation and balancing. It can be suggested that proportionalism may go some way to protecting healthcare works from the radical moral *volte-face* that a switch to maximisation of survival, minimisation of morbidity, and rationing of care and treatment calls for. However, there are clouds on the horizon for proportionalism. Firstly, doubts can be raised as to the feasibility of calculating proportions of benefits and harms in general, and even more so in a disaster context.

Proportionalism assumes that benefits and harms can be identified and co-evaluated in such a way that a course of action can be settled on that will bring about the best proportion of benefits and harms. An obvious question to ask, especially for those working in disaster contexts, is what should count as a benefit? Some argue that the benefits to be counted should be restricted to the minimal

primary goods that each of us demand for ourselves in terms of physical survival (Baker & Strosberg, 1992). One argument in favour of this position is the recollection that the primary goods that contribute to survival cannot be cross-compensated, that is to say a lack in food cannot be compensated for by an overabundance of warmth and shelter. Therefore, there is a dire need to secure each individual primary good, one cannot be left behind or marginalised. In addition, securing an individual's welfare interests is a prerequisite for the achievement of well-being.

However, focussing solely on the requirements for survival fails to answer the question of the quality of life that survival may entail, and fails to accommodate other morally significant issues that neither contribute to, nor compromise physical survival. Others may want to include the minimisation of suffering as a benefit worth realising and seek to include that in any evaluation of the proportion of benefits to harms. Mayerfeld has written extensively on the moral imperative to reduce suffering as an end to be pursued, proposing that:

> *"We have a prima facie duty to relieve suffering, because suffering is bad and ought not to occur ... it's occurrence makes the world much worse ... suffering cries out for its own abolition or cancellation"*

(Mayerfeld, 1999, p. 111)

For those concerned with the proportion of benefits to harms, this position implies that the relief of suffering should be included in any evaluation of alternative courses of action. Reflecting on an issue raised earlier, it can be suggested that the relief of suffering fits Barilan's (2014) concept of a morally significant but clinically neutral issue that disaster triage systems and the pursuit of maximal survival fails to accommodate. For some, the suffering of some, or even many, may be a price worth paying in extreme circumstances. For others, the duty to relieve suffering because it *"is bad and ought not to occur"* may override the drive to maximise survival and other clinical outcomes. Proportionalism assumes that the net benefit of the relief of suffering can be stacked against the net benefit accrued through survival, recovery from injury, or immunisation rates, or nutritional status etc. One advantage of proportionalism over a framework of maximising a restricted set of clinical outcomes is the ability of proportionalism to be more accommodating to a wider range of possible outcomes. In some situations the relief of suffering may be trumped by the imperative to save lives, whilst in a different situation, suffering may trump survival. In this way, proportionalism is more sensitive to situation and context than the pure pursuit of a single or restricted list of predefined outcomes.

At this point it is worth considering what a proportionalist approach to ethical questions in disasters requires of those who find themselves in a disaster. Consider a real-world event from the earthquake in Haiti in 2010. Following the earthquake, urban search and rescue teams from across the globe arrived in Haiti. Urban search and rescue teams are specialised to search collapsed buildings and

rescue those trapped. Each team is large, consisting of twenty to sixty experienced fire and rescue and paramedical personnel (International Search and Rescue Advisory Group, 2020). Urban search and rescue teams are not only able to undertake technical extraction of trapped people from collapsed buildings, but also able to provide enhanced first aid to those they rescue (International Search and Rescue Advisory Group, 2020). With multiple teams travelling to Haiti in the earthquake aftermath, we can estimate the numbers of international urban search and rescue personnel on the ground to run into the hundreds, that is to say hundreds of trained disaster responders with a wide range of disaster specific skills. Yet the numbers rescued by these international teams seems small. According to the Congressional Research Service, as of the end of January 2010 (approximately two weeks post-earthquake), forty-three search and rescue teams had rescued 134 people from collapsed buildings (Margesson & Taft-Morales, 2010). Using an extremely conservative estimate of ten operatives per team, there was a workforce of over four hundred experienced disaster responders on hand who could have provided first-aid and minor injury care to hundreds, if not thousands of disaster victims. Immediate first-aid care for lacerations, burns, soft tissue and eye injuries and the management of simple closed fractures can prevent infections, save limbs, return people to work and reduce pain. It can be claimed that by concentrating on the rescue of 134 people, urban search and rescue teams denied the benefits of first-aid to hundreds and maybe thousands of disaster victims. What proportionalism assumes is that an effective comparison can be made between the calculable benefit of 134 lives saved and the calculable benefit of the treatment of thousands of people with lacerations, simple closed fractures, eye injuries etc. Proportionalism claims that such evaluations of benefit to harm are robust and can identify the morally correct course of action that should be followed. And further, proportionalism claims that the weighing of alternative courses of action can take place beyond the influence of the personal interests of the decision makers. Proportionalists would claim that the urban search and rescue teams in Haiti should have realised that the relatively negligible benefit of saving a few survivors should be forgone in favour of the provision of emergency aid to the large number of injured disaster victims. Yet others would argue that saving life is a supreme good and outweighs all other benefits, whilst others may counter that the long-term survival and recovery of people trapped for several hours, if not days, in collapsed buildings is grim and that the benefit of saving them today is quickly lost as early death and disability takeover. This real-world problem highlights some of the difficulties of working with competing ends and values in disaster contexts, specifically how to compare different outcomes and how to account for the shifts of benefit, harm and burden as time moves forward.

So far when considering a proportionalist response to how to choose the right thing to do in a disaster, we have focused on two candidates for inclusion in the calculus of benefits, namely the welfare interests of individuals that underpin their survival, and the relief of suffering. However, as noted earlier, welfare interests are merely the foundations or the gateway to well-being that follows

the pursuit and realisation of more ultimate endeavours (see above *Feinberg's view of interests and harm* p99). For those seeking to realise the greatest proportion of benefits to harms, it now seems the field is thrown open as to what potentially could, or should, be included in the evaluation of benefits and harms between different courses of action. One could argue that there is no reason why benefits such as access to education, economic activity, food security, enjoyment of personal liberty, engagement in cultural activities and many more, should be excluded from the accounting of the benefits and harms that stand to be accrued through different courses of action. Such an opening up of the menu of items that could be included in any evaluation of different courses of action necessarily increases the complexity of any such evaluation. When faced with such a broad expanse of possible outcomes to include in a proportionalist calculation, there is a temptation to retreat back to a restricted set of clinically relevant and empirically verifiable outcomes such as survival rates and reduction of morbidity. However, such a retreat returns us to the question of survival but to what end? In response, some may argue that merely saving lives whose onward survival will be short or marred by suffering and misery is not enough and consideration of the quality of lives saved is needed. Then we return to questions of well-being and the quality of the lives saved then and an expansive list of candidates for inclusion on the balance sheet of benefits, harms and burdens.

Further complexity is encountered when issues of time span are included. As already discussed, the issue of what counts as survival and how much survival should count as an outcome has already been raised. Issues of time also arise when considering other outcomes, such as emergency interventions that save lives today but leave people in pain for the remainder of their days. Questions of time in disaster context also occur when evaluating immediate interventions against long term interventions that may save more lives overall but leave people dying today, for example the tension between immediate therapeutic feeding of those with acute malnutrition and longer-term famine relief projects aimed at increasing food security over many months and years. In disaster contexts, time aspects of the event are often unpredictable and add to the exceptionality of disaster events. For healthcare workers who find themselves in a disaster they be unsure as to
- the duration of the event,
- how the intensity of the event will unfold over time
- what further relief efforts will arrive over the coming hours or days
- timelines for resupply of material and human resources
- how many people will present for care and treatment over the next hours and days

and many more uncertainties regarding the future. Whilst it is true that there is a body of knowledge based in cognitive psychology that addresses how decisions are made in uncertainty and this may be applicable to the situation of those in a disaster, the central tenet of a proportionalist approach to deciding what is the right thing to do is a belief that it is possible to identify the one course of action

that will bring about a better proportion of benefits to harms than any other available choice. If issues of time are introduced, doubt grows as to the possibility of achieving such an end.

For those who advocate for a proportionalist approach to deciding what is the right thing to do in a disaster context, the growing scope of what counts as a benefit and harm, and the uncertainty as to how events will unfold in the future present a serious challenge to the practical viability of proportionalism in disaster contexts. One can be rightly sceptical as to whether the degree of evaluation and comparison that proportionalism calls fall is possible to achieve in the real world. If one is to rely on an evaluation of different courses of action to identify the one that will *"bring about a better proportion of benefits to harms",* then it has to be cognitively possible to undertake such multi-variable evaluations. Some suggest that there is no reason to believe that such evaluations and computations are in fact possible, either by an individuals or by a group, either in the midst of a disaster or in anticipation of a disaster; as Lehtinen and Kuorikoski observe *"the idea that agents would consciously perform complex valuations between innumerable trade-offs is blatantly implausible"* (Lehtinen & Kuorikoski, 2007, p. 122). Thus, doubt can be cast as to the practicality of a proportionalist approach to ethical decision making in disasters that turns on the ability to effectively calculate net benefit of a different courses of action that may unfold over different time scales and realise a wide and differing range of benefits and harms. This wide and differing range of benefits and harms presents another significant challenge to the proportionalist approach to identifying morally right actions; this challenge turns on the incommensurable nature of different outcomes and states of affairs

Incommensurability

A proportionalist approach relies on a commitment to the position that different end states and values can be evaluated one against the other. Such a position expresses one of two related beliefs; either that different end states and values, for example personal liberty, public safety, biological survival of the individual or minimising suffering, can be measured on a common scale of value, or a belief that different end states and values can be evaluated against a third common one-dimensional super-value such as utility (Boot, 2017). Such a position allows for the pair-wise measurement of different end sates or values on a cardinal scale. The position that sees diverse values and end states as being capable of measurement on a common scale is expressed as a belief in commensurability. Under commensurability, a claim is made that we are able to effectively measure widely diverse values and end states on a common scale. Further, under commensurability, calculations can be made as to the relative proportions of benefits and harms that different intended courses of action will bring about, the focal point of proportionalism. For Finnis, accepting the commensurability of diverse values and end states is a foundational element of proportionalism (Finnis, 1983, p. 87).

When considering situations healthcare professionals find themselves in in disaster contexts, commensurability would claim that it is possible to calculate the benefits, harms, and burdens between conflicting courses of action. So for example, commensurability claims that it is possible to calculate the net benefit of directing resources to saving a few lives in extreme peril, and the net benefit of directing resources to address more widespread, but less life-threatening need. Commensurability claims that the benefit of lives saved, the benefit of treating non-life-threatening but limb-threatening injuries, the benefit of treating cases of pneumonia, and the net benefit of midwifery care can be measured with a common scale of measurement. When applied to purely medical outcomes, one can have some sympathy with the idea that different end states can be effectively measured on a common scale, indeed units such as Quality Adjusted Life years (QALYs) and Disability Adjusted Life Years (DALYS) claim to do just this (Phillips, 2005). What appears to be more problematic is the application of commensurability to fundamentally different end states and values. As an illustration we can reconsider the experience of healthcare professionals providing care in situations of great personal risk.

Earlier in chapter two the experience of nurses working in the SARS pandemic of the early 2000s was presented. These nurses felt pulled between concerns for their own safety, the protection of their family from infection and their professional obligations to report for duty. Likewise, exploring the experience of healthcare professionals working in conflict reveals a tension between delivering care for those in need, concerns for personal safety and obligations to family. Commensurability claims that concern for one's own survival, commitment to family, and professional obligations can all be measured on a single scale that allows for the relative benefit of these different values and end states to be calculated. Likewise, for those in conflict settings who may be faced with a decision as to whether to remain on duty and provide care and attention to the wounded, or search the emergency department and admission wards for family members following air or artillery bombardment, commensurability claims that these two choices can be effectively compared in such a way as to determine which course of action will realise the greatest net benefit. More recently, the ethical justification for the restrictions on personal liberty imposed in response to the SARS-CoV-2 pandemic can be seen to rely on the ability to measure the harms and burdens created by such restrictions and the benefits of public safety. However, there are grounds to reject commensurability with many arguing that different end states and values are not only different in scale but also radically different in their form. Further, the claim is made that the radical difference between different ends defies reduction to a common scale. Such a view holds that radically different end states and values are irreducible and incommensurable.

Finnis (1983) argues in favour of the incommensurability of radically different ends and values. Whilst Finnis admits that computation of quantities of different benefits and harms may be

technically possible, he claims such computations are essentially senseless: *"senseless in the way that it is senseless to try to sum the quantity of the size of this page, the quantity of the weight of this book and the quantity of the number six"* (Finnis 1983 p 87). For Finnis, basic human goods are radically and essentially different from each other, just as the size of a page, the weight of a book and the number six on a dice are radically and essentially different from each other. Because they are radically and essentially different, any appeal to a common yard stick of measurement and computation (sum total, average, net gain etc.) is meaningless. Finnis does not deny the possibility of undertaking some form of mathematical reckoning, he merely denies that the results of any such computation is in any way informative.

Finnis is not alone in rejecting the commensurability of different ends and values. Williams too proposes that there is a plurality of values that cannot be reduced to each other or to a third super-value (Williams, 1981). Williams goes further and proposes that, as a result of the irreducible nature of radically and essentially different values and end states, true irreconcilable moral conflicts can exist *"where there are conflicting moral requirements, and that neither of them succeeds in overriding or outweighing the other"* (Williams, 1981, p. 74). This is an important point and challenges the underlying principle of proportionalism that holds that different benefits and different harms can evaluated in such a way that a course of action can be identified that will bring about a better proportion of benefits to harms than any other available choice. For a proportionalist, whilst there may be uncertainty as to which course of action will realise the greatest proportion of benefit, there can be no irresolvable conflict between choices; the right choice is the one that realises the greatest proportion of benefits relative to harms and burdens.

To go further, a claim can be made that commensurability eliminates moral dilemmas (Reiff, 2014). To illustrate this point we may consider the situation that nurses working in the first SARS outbreak found themselves in. Commensurability claims that the value these nurses placed on their own life and survival, their concern for their own family's safety, and the benefit accrued through their reporting for duty can be measured so as to make it possible to identify the course of action that realises the greatest benefit, even to the point of self-sacrifice. Let us suppose that the results of this calculation identify the right course of action as reporting for duty even in the face of mortal danger. To reword an earlier quote taken from Taurek (1977):

> *"We agree with you that it is a bad thing, a very bad thing, that you should die of SARS.*
> *But don't you see it is a far worse thing that these five patient should die of SARS? You*
> *ought to ensure that the worse thing doesn't happen, you should report for duty and face*
> *death because it is a worse thing that five people should die of SARS than one person,*
> *you, die of SARS."*

Don't you think that the nurse might demur? Isn't he likely to ask: "Worse for whom?"

This reworded quote highlights the difficulties of commensurability and sustaining a belief that all things can be effectively co-evaluated on a common scale. Finnis would argue that the value to a nurse of their own personal survival is radically, essentially, and irreducibly different from the value that that nurse places on other people's lives, for Finnis these values are different in nature and not different in quantity. The radical, essential and irreducible difference between some end states is explained by Boot as embodying three not trues: or as Triply-Not-True (3NT) (Boot, 2017).

3NT runs as follows; it is not true that A is better than B, and it is not true that A is worse than B, and further it is not true that A and B are equal. We can apply 3NT to the situation of nurses faced with SARS and deciding whether the right thing to do is to look to their own survival and safety or to fulfil their duty to provide care and save the lives of others. When applied in this context we can claim that -

- it is not true that valuing self-preservation is better than saving the lives of five other individuals
- it is not true that valuing self-preservation is worse than saving the lives of five other individuals
- it is not true that valuing self-preservation is equal in value to saving the lives of five other individuals.

When presented in this way, the third 'not' does not seem to make sense, if choice A or choice B are neither better nor worse than each other, then surely they must be equal in value, or at least roughly equal in value. This conclusion only follows if we believe there is commonality of value that allows choices, and the values they reflect, to be effective co-evaluated. Those who reject commensurability argue that, for example, the duty to self and self-preservation and the duty to help others and save the lives of others are radically different rendering comparisons of better, worse, or equal uninformative.

Other cases can be created to illustrate the application of 3NT in disaster contexts. For example, in a triage and prioritisation we can claim that -

- it is not true that saving patient A's arm is better than saving the sight of patient B
- it is also not true that saving the arm of patient A is worse than saving the sight of patient B
- it is not true that saving the arm of patient A is equal to saving the sight of patient B.

Some may argue that it is in fact possible to determine whether losing an arm or sight is worse/better and indeed individuals may express a preference over one or the other in relation to their own life now and in the future, their livelihood, and their welfare and well-being interests. However, healthcare professionals who find themselves in a disaster context are often not deciding which benefits and

harms to bring about or prevent in an individual's life, but rather deciding between different individuals with different values and preferences. Commensurability would claim that it is possible to measure the benefits and harms associated with sight loss or loss of an arm from an impersonal stand-point. Further, a proportionalist approach to decision making would claim that the right thing to do (save sight/save limbs) is the course of action that will realise the greatest net benefit relative to harm. One can see that this is what disaster triage aims to do, to realise the greatest net benefit, yet at the same time overriding the personal choice and assent of those being prioritised or deprioritised or refused treatment. The problem of plurality of values is clearly illustrated by considering the choices faced when deciding which services and assistance to provide at a programme level.

At a programme level, 3NT can be applied to the decisions as to which areas of activity to resource or not. For example, if choosing between resourcing child protection services and child immunisation services we can claim that -

- it is not true that protecting children from sexual exploitation is better than protecting them from measles
- it is not true that saving children from sexual exploitation is worse than protecting them from measles
- it is not true that protecting children from sexual exploitation is equal to protecting them from measles.

In this case, those who support commensurability would claim that there is in fact a common scale through which the harm of sexual exploitation and the harm of measles can be measured and compared, thus allowing resources to be allocated to those programmes that would accrue the greatest net benefit (child protection or immunisations). Yet, those who reject commensurability would claim that the harm of sexual exploitation is radically, essentially, and irreducibly different from the harm that arises through measles infection. As such, any attempts to measure the harm or benefit from child protection or child immunisation on a common scale are senseless.

After reading these cases one may be left frustrated and asking the question *"What do you mean by 'worse' or 'better', on what grounds are you making such judgements?"*, but this is the central question that those who propose a unity of measurability need to answer. If commensurability is true, then it makes sense to talk of sexual exploitation of a child being better or worse than that child catching measles. For those who reject the unity of value that underpins commensurability it makes sense to talk of the harm of sexual exploitation is being radically and essentially different from the harm occasioned by contracting measles. At a personal level, I doubt that there is a single metric or value-scale that allows for the effective co-evaluation of different benefits, harms and burdens. This doubt in turn creates further doubt as to the success of a proportionalist approach to decision making

in disaster contexts. The question then arises, if proportionalism and the calculation of net benefit fails, then what is left to guide decision making? The experience of the philosopher Alan Donagan captures this realisation.

Finnis (1983, p. 99) recounts the experience of Alan Donagan who, up to a point in his life had been committed to an approach to ethical problems that saw the right thing to do as the course of action that would accrue the greatest net benefit following a utilitarian normative approach. Donagan became involved in a back and forth exchange of justifications, claims and counter claims regarding the consequentialist thought experiment concerning a town sheriff who can successfully frame an innocent man for an unsolved crime thereby assuaging the outrage of the population and preventing a deadly riot. Arguments were passed back and forth between Donagan and others as different courses of action carrying different proportions of harms and benefits were proposed and countered. Donagan, who up to this point had been a supporter of a broadly consequentialist approach to ethics, arrived at a moment of insight. Commenting on the back-and-forth trading of arguments in the sheriff test case, Donagan realised that:

> *"our joint performance began to appear comic ... we were debating, not exchanging scientific results ... On this debated issue, no utilitarian calculations are available, mistaken or otherwise: there is nothing but advocacy"*

(Donagan 1977 in Finnis 1983 p99)

Taking Donagan's points about advocacy we can reframe the choice between self-preservation or reporting for duty, between saving A from amputation or B from blindness, or between preventing sexual exploitation or measles as questions of advocacy rather than the calculation of a scientific result and a balance sheet of calculable benefits and harms. Proportionalism and other consequentialists approaches that seek to maximise benefit imply that there is an answer that needs to be discovered. By contrast, advocacy suggests that there may be no single answer to the question *"What should I, or we, do?"*, but suggests that there are competing answers to the question, each arising from a plurality of values. It may well be the case that advocacy is a more honest portrayal as to what actually happens in disaster contexts rather than studied calculations of the potential net benefit across a range of alternative courses of action.

Advocacy also alters our understanding of the one who has to decide between competing courses of action, different patient priorities, or different patterns of resource allocation. Under proportionalism or the maximisation of a set end, the one who has a choice to make can be seen as a detective who sets about discovering the course of action that will bring about a best proportion of benefits to harms, or maximally realises a set end state such as survival. Under advocacy we can entertain the possibility that there may be no single right answer to choices. With no single unique

right course of action, it is conceivable that different individuals in the same circumstances will arrive at different solutions. Further, the different solutions advocated for by different individuals may be no better or worse than each other, yet at the same time not equal in value either. In disaster contexts, the recognition that many decisions may turn on advocacy again introduces space for the consideration of the qualities of those who must choose, their wisdom and foresight, and their courage. And it is to these points that it is now time to turn.

Conclusion

The purpose of this chapter and the preceding one has been to consider the application of two universal principles of healthcare practice in disasters, *first do no harm* and *do good*. Both principles have the appearance of being useful ethical resources that those in a disaster could draw on when faced with difficult choices. However, a more thorough exploration of these principles has revealed some of their weaknesses when applied to the disaster contexts. Whilst not necessarily fatal, these weaknesses do raise doubts as to the prescriptive nature of a consequentialist disaster healthcare orthodoxy. However, it is accepted that dogmatic adherence this orthodoxy is an exaggerated caricature and advocacy may be a more accurate depiction of what actually occurs in disasters. Considerations of advocacy allows us to appreciate the healthcare professional in disasters as one who must choose in difficult situations of overwhelming and pressing need where they know that their choices will benefit some but may also harm or impose burdens on others. This introduces considerations of not only what to choose, but how to choose and how to choose well. A further point to be considered in addition to how to choose well, is how to act well once a choice has been made. Such questions may find an answer through the application of virtue ethics. It is to the application of virtue ethics to the situation of the healthcare professional in a disaster that we can now turn.

Chapter 6: Virtue ethics and disasters

It is a fair to claim that disasters are characterised by uncertainty and this uncertainty extends to those healthcare professionals who find themselves in disaster contexts. Uncertainty exists as to what counts as a disaster, its scale, scope, and how it will unfold in the near and far future in terms of the resources available and the needs that will arise. For those in a position to help in a disaster, uncertainty exists as to how to balance their competing roles as victim and responder. For healthcare professionals, uncertainty may exist as to the applicability of codes of conduct and professional ethics that seem to run out of content, or become overly demanding, in the exceptional circumstances of a disaster. For those in a disaster, there may be uncertainty as to what to do for the best when every course of action seems to invite both benefit and harm. Uncertainty can also arise as to what should even count as benefit and harm in a disaster. And for healthcare professionals and others who seek to maximise benefit over harm, there may be a deep uncertainty as to whether or not the needs of the many outweigh the needs of the one. Yet, within this uncertain disaster world, there is at least one point of certainty; there will be a healthcare professional who must choose. This reality introduces considerations of how the healthcare professional faced with overwhelming and pressing need should choose. Consideration of the character of the chooser in the uncertain but pressing world of a disaster may offer new insights into the situation of the healthcare professional in a disaster. Further, such a consideration may replace the question *"What should I do?"* with new question *"How should I be, how should I choose and how should I act?"*. I suggest that within ethics, virtue ethics are well placed to address the question of how to choose and act in disasters. The following discussion draws heavily on the arguments and conclusions of Rosalind Hursthouse (1999).

Virtue ethics

In Western thought, attention to virtue ethics has waxed and waned over the last two millennia. Virtue ethics held a prominent position in some schools of ancient Greek thought and re-emerged as central orientation in medieval Christian philosophy. However, its prominence decreased in the Enlightenment and modern eras where two normative ethical theories dominated, deontology and utilitarianism, leaving virtue ethics largely ignored as an area of scholarly enquiry (Hursthouse, 1999). However, the last forty years or so has seen a renewed interest in virtue ethics through the work of Phillipa Foot (1978), Alasdair Macintyre (1981), and Rosalind Hursthouse (1999).

As a broad orientation, virtue ethics takes as its primary concern the nature, or character, of the agent and those characteristics that support living well as a person. These characteristics are the virtues. Virtues are those characteristics that support living well and flourishing as a person; Aristotelian *eudaimonia* (Allmark, 1998). Virtues can be seen as stable and enduring features of a

person that unify cognition, emotion, motivation, and action that are developed and honed through repeated practise and exercise. Foot identifies four cardinal virtues; courage, temperance, wisdom and justice (Foot, 1978). Arries expands the list to include care, respect, integrity, honesty and trustworthiness (Arries, 2005), whilst Horner adds patience (Horner, 2000). Despite the range of personal characteristics that different authors identify as virtues, Hursthouse claims virtues all share some common features[21]. For Hursthouse, a virtue is a deeply entrenched character trait; for the person possessing a virtue, that virtue *"governs and informs her whole life and conduct"* (Hursthouse, 1999, p. 135). As such, virtues are constitutive of the person who holds them. Being constitutive of the person, possessing a virtue will lead to reliability of action; if someone has a virtue V we expect them, and rely on them, to act in accordance with V. Further, possessing a virtue V will lead someone to act for a certain sort of reason; the possessor of V will act readily, unhesitatingly, and eagerly just because their action expresses V. Additionally, those in possession of V will admire and praise virtuous acts of others, but disapprove of and deplore the non-virtuous acts of others.

By stipulating these characteristics, Hursthouse provides a scheme whereby different claims that such and such is a virtue, can be tested. Within this approach, the contribution to well-being or flourishing can be seen as crucial marker of a virtue. In this way, even though different lists and catalogues of virtues are presented by different authors, they are all manifestations of a deeper unity that ties disparate virtues together. This position invites an answer to the question as to the nature of human flourishing that the virtues are both expressive and constitutive of.

Human flourishing, well-being and *eudaimonia*

Drawing on the origins of virtue ethics, the virtues are those characteristics or excellences, that fit something to its purpose. In this way, virtue ethics is frequently portrayed as teleological, that is to say there is an inherent purpose and structure to human life, its *telos* (Brennan, 2002). Whilst the *telos* specifies the end point, human flourishing, well-being, *eudaimonia* is seen as the activity or process through which the *telos* is worked towards and realised. That is to say flourishing and well-being arises when lives are lived in such a way as to realise the *telos* of humankind (Capuccino, 2013). For proponents of virtue ethics, human flourishing, well-being, or *eudaimonia,* can be known, elucidated and codified. Critics of virtue ethics argue that this is not the case. Critiques argue that both the notion of a natural *telos*, and the notion of *eudaimonia* that flows from it, are a fiction based on an imagined conceptualisation of what human nature is. Critics doubt that there is a single perfect archetypal human nature and that any judgements and evaluations as to which lives or actions most effectively realise the human *telos* are misleading. Proponents of virtue ethics offer two responses to the problem of human flourishing and the *telos* of humankind.

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[21] See Hursthouse (1999) pp8-16.

Firstly, an assertion can be made that there is in fact a particular human nature that is knowable, and that the realisation of this nature is the lynch pin of human flourishing. Such a response is suggested by Hursthouse (1999). Hursthouse makes two claims. Firstly, humans are animals so any considerations of the well-being and flourishing, or doing well of an animal also applies to us as human animals; more specifically individual survival, continuance of the species, freedom from pain and forms of enjoyment characteristic to members of a given species, the good functioning of the social group. Hursthouse makes a further claim that it is possible to evaluate whether or not a given individual specimen of a species, x, is a good specimen of a species in so far as it is as *"ordinarily well fitted or endowed as an x can be to do or live well, to thrive or flourish (in a characteristically x way)"* (Hursthouse, 1999, p. 205). Hursthouse continues her argument by identifying what she takes to be the feature of human life that serves as the cleavage point between flourishing as an animal and flourishing as a human. For Hursthouse, this point of cleavage is reasonableness; *"... it is quite certain that it is primarily our acting from reason, well or ill, rather than those occasional actions we do 'from inclination', that makes us good or bad human beings in the ethical sense"* (Hursthouse, 1999, p. 207). Thus, for Hursthouse it appears that virtues are expression of our nature as creatures able to give reasons for our actions and open to reasons to act one way or another. Hursthouse's proposition, that humans can give reasons to others, and also to themselves, to act on one way or another, is also reflected in the thinking of Oakley and Cocking (2001). They introduce the concept of a 'regulative ideal' that is an *"internalised normative disposition to direct one's actions and alter one's motivation in certain ways"* (Oakley & Cocking, 2001, p. 25). Thus, a person who possess a virtue has *"internalised a certain conception of correctness or excellence, in such a way that they are able to adjust their motivation and conduct so that it conforms – or at least does not conflict – with that standard"* (Oakley & Cocking, 2001, p. 25). Both of these quotes highlight the control through reasoning and reflection that people can exercise about how their life goes.

There is a second response to the critics who doubt that there is an ideal human nature that is realised through virtue. The second response turns on the everyday ability of each of us to evaluate the lives of others. I may not be able to fully articulate or codify what perfect, or ideal fatherhood is, but I can pass comment on how well my friends and neighbours perform the 'job' of fatherhood. Similarly, for one of my friends new to fatherhood, *"it would be absurd to suggest that the uncodifiability of the notion 'good father' entails that the sorts of values involved in good fathering cannot play any sort of guiding or governing role in the motivation and behaviour of men with their children"* (Oakley & Cocking, 2001, p. 27). Following the argument, just because we cannot fully codify and lay out what constitutes being a good person, does not mean that the values and ideals about what counts as a good, excellent or admirable person cannot play a role in providing reasons for actions and motivations. Further support is provided by Iris Murdoch in her essay on the concept Good over others:

"the ordinary person ... thinks that some things really are better than others ... We are not usually in doubt about the direction in which Good lies. Equally we recognize the real existence of evil: cynicism, cruelty, indifference to suffering. However, the concept of Good still remains obscure and mysterious"

(Murdoch, 1970, p. 95)

The idea of direction introduced by Murdoch may be more useful in our day-to-day evaluations of actions, motives and whole lives, and offers an alternative to the weighing of actions, motivations and whole lives against an ideal, an ideal that may be contested or even ultimately unknowable. Murdoch would appear to claim that even though we may not be able to fully delineate what the Good, *telos*, or *eudaimonia* are, we are still able to offer valid judgements on our own and other people's lives as to whether or not they are better or worse examples of human lives, whether they point towards the good or the evil, or whether they are at least not in conflict with the good, the admirable the excellent.

Thus, in response to critics who claim that there is no single, predetermined human nature, we can follow Hursthouse in arguing that there is and that it is knowable and has certain characteristics. Further, reflecting the position of Oakley and Cocking (2001), even though we may not be able to fully articulate or codify what perfect or ultimate nature of humankind is, we are still able to make worthwhile evaluations of lives that are more fulfilled and flourishing, or wretched and miserable. In this way, the concepts of *telos* and *eudaimonia* remain viable.

Eudaimonia in healthcare practice and disaster healthcare

Some writers on professional ethics doubt the usefulness of the notion of *eudaimonia* in professional practice. In this way Holland is hostile to the idea that nurses consciously strive to achieve a state of human flourishing that amounts to them being *eudaimon* (Holland, 2010). This seems a rather paradoxical stance, because it can be argued that nursing, and professional healthcare in general, is all about human flourishing and well-being. When a nurse or doctor or physiotherapist etc., meets a patient their central concern is the well-being and flourishing of that patient within the bounds set by the patient's illness or injury, and situation within which the patient lives. As healthcare professionals, we are able to evaluate a patient's life as a good or bad one. Such an evaluation is not a moral evaluation of good or bad, but rather a Hursthouse-like evaluation of a good or bad example of a human life. We can identify the life that is wretched, impoverished and racked with suffering and misery, and we can identify the life that is content, expansive and thriving (with the proviso that such judgements are fallible). If we allow the scepticism of Holland that we, as healthcare professionals, are not concerned with human flourishing and well-being, how can we make anyone better? Note here the use of the word 'better' not 'best', again pointing to the notion of travel and trajectory rather than the attainment of perfection; a notion that echoes the thoughts of Murdoch above. Going further, it would be fair to be critical of healthcare practices that failed to accommodate human flourishing and

well-being. Practices that treated injuries and illnesses as mechanical challenges of biology for resolution but showed no concern as to the meaning of the illnesses or injuries to the patient, or concern for the patient's hopes, fears, and suffering, would rightly be adjudged deficient and worthy of criticism, even though such practices could be technically excellent. If human well-being and flourishing is the mainspring of healthcare practice, the assertion that nurses and other healthcare professionals do not, or should not, seek to support well-being and flourishing, is difficult to sustain.

It is easy to see how the idea of flourishing can attract scepticism. Everyday life seems to be difficult, problematic, and constrained in some way or other and the idea of achieving some state of sublime fulfilment seems beyond the reach of most of us. This realisation becomes even more acute when we think of the lives of those who survive and live in the aftermath of a disaster. For disaster victims their lives may be dominated by injury and disability, pain, and suffering, or an urgent struggle to secure the bare minima needed for bodily survival. For people in these situations, does the idea of flourishing make sense or have anything informative to say? Stephen Pattison and Andrew Edgar think it does.

Firstly Pattison & Edgar reject the characterisation of flourishing as an emotional state of ease and happiness, what can be termed a 'comfort and joy' conception of flourishing (Pattison & Edgar, 2016). Further, they do not see flourishing is a stable end state or *telos*, but as an active quality to be realised as life is lived. This view of flourishing stands in contrast to proponents of virtue ethics who present flourishing as an end state to be achieved rather than as a process to be engaged in[22] . Edgar & Pattison recognise that life is difficult, worrisome, transient, bounded by contingency and luck. Against this background, flourishing is presented as a quality of *"positive resistance and resilience"* that comes to the fore in times of adversity (Pattison & Edgar, 2016, p. 102). They see life as chancy and fragile, full of disappointment and loss, but also recognise that people can endure and learn and build a good enough life within the restrictions imposed by illness, injury, and sheer bad luck. Part of flourishing is to find meaning in a realistic appraisal of the imposed tragedies of life, a realistic appraisal of the fact that *"we are what we seem to be, transient mortal creatures subject to necessity and chance"* (Murdoch, 1970, p. 72). This discovered meaning is expressed through a constructed life story that adds purpose to acts that without a story would be rendered arbitrary acts, devoid of purpose. To flourish:

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[22] See for example the paper by Papouli (2019)

"... is to be able to tell a meaningful, but not necessarily happy, story about one's life. The person who is overcome by grief or suffering, and thus whose life loses meaning, cannot go on. They cannot make intelligible choices about the rest of their lives. To flourish presupposes the capacity to go on, meaningfully and realistically."

(Pattison & Edgar, 2016, p. 103)

This view of flourishing provides a view of flourishing that is more expansive than mere physical well-being, and subjective experiences of 'comfort and joy'. This view recognises that people living with incapacities driven by chronic illnesses, those with disabilities, those whose life is dogged by suffering and those approaching death can all still flourish, even though their well-being is hemmed in or at risk.

For those working in disasters, this view of flourishing is important. It underlines that even though disasters cause death and loss on an unimaginable scale and strip away even the bare bones of human existence, we can still see flourishing. In disasters we can see resilience, endurance, repair, and creation. In disasters, this different conception of flourishing returns agency to those who have lost not only the means to live, but also any understanding of how the world works in the face of what may seem no more than monstrous and disastrous misfortune. By introducing this view of flourishing we can push back against the orthodoxy that maximising the amount of survival is the primary good to achieve. The drive to ensure biological survival of disaster victims can be tempered by the fundamental, but often overlooked, question 'to what end'?

For healthcare professionals in disasters, the points about the relevance of human well-being and flourishing seem important. Reasserting the central role of human flourishing and well-being offers a counter to the maximisation of outcomes such as survival, which seems to assume an impersonal character in disaster healthcare ethics; that is to say obtaining the greatest number of instances of 'being alive' as the highest good over and above considerations of what might be best for an individual (Fassin, 2012). A consideration of human flourishing adds the question 'to what end?' to the objective of saving the greatest number. Similarly, with the paired concepts of 'not harming' and 'doing good', I would suggest that both are devoid of any meaningful content without a conceptualisation of what makes a life go better or worse.

To advocate for not-harming and doing good without a conception of what makes a human life go well seems strange and somehow adrift, unanchored from any conception of the good human life. The integration of human flourishing into harming and doing good can lead to a more expansive view of these concepts. Up to this point, much focus has been on the welfare interests of disaster victims, interests that underpin biological survival. Whilst recognising well-being interests, up to this

point very little attention has been given to these more ultimate interests that make life worth living. Human flourishing can be seen to redress this imbalance and in doing so extend the view of what aid ought to be provided in disasters, aid that not only ensures human survival but supports human flourishing. In so doing, aid can encompass those morally significant but clinically neutral facts that a more narrow focus on objective outcomes such as survival and morbidity provide little space for.

Further, not only can the concept of human flourishing guide *what* aid is delivered, but also frame *how* aid is delivered. For example, service delivery that provides opportunities for, or even rewards, theft, violence and dishonesty can be seen to encourage vice. By contrast, aid delivery that encourages honesty, charity and neighbourliness, and protection of vulnerable or marginalised disaster victims, can be seen to be 'virtue permissive'. As a practical example consider how food aid may be distributed following a disaster. it can be distributed randomly from the back of a truck, leading to theft, violence and robbery – in short encouraging disaster victims to act in a non-virtuous, or vicious, manner. Alternatively, food distribution can be targeted at those unable to compete in a physical struggle for food from the back of a truck so encourage neighbourliness and charity, and reward honesty.

It can be argued that by being virtue permissive, aid delivery provides the opportunity for disaster victims to flourish as human beings. It may seem counterintuitive to suggest this possibility, but being a disaster victim need not necessarily exclude the possibility of flourishing. This claim finds support in the views of Pattinson and Edgar (2016) presented above where flourishing is seen as the ability to construct a *"meaningful, but not necessarily happy, story about one's life"*, and the *"capacity to go on, meaningfully and realistically"*. These aspects of flourishing do not exclude the possibility of flourishing in adversity. By contrast, a view of human flourishing as comfort and joy, would struggle to conceive of the possibility of disaster victims flourishing as human beings. Thus. human flourishing can be seen to offer the possibility of a more expansive and nuanced approach to aid delivery in disasters, guiding not only what aid is delivered but also how aid is delivered.

The contribution of human flourishing to disaster healthcare presented above expands the conception of doing good in disasters, it also indicates other forms of harming, that is to say aid and aid delivery that gives opportunity for non-virtuous or vicious acts. However, this view leaves intact the underlying orthodoxy of maximisation of benefit. Therefore, human flourishing in isolation does not offer a unique alternative to the consequentialism in disasters. However, such a view of the contribution of human flourishing to disaster healthcare fails to appreciate the different grounding that virtue ethics gives for the rightness of an act. Within a consequentialist approach, the ethical status of an act is derived from the outcomes of an action. By contrast, within virtue ethics, the ethical status of an act is entirely derived from the character traits and motivations of the agent (Slote, 1995). Thus,

whilst human flourishing can be accommodated within a consequentialist approach to ethics, doing so fails to fully appreciate the account of right action found within virtue ethics. Within virtue ethics an act is right if, and only if it is:

– what a virtuous agent would characteristically do in the circumstances,

– where a virtuous agent is one who possesses and exercises, certain character traits, namely the virtues,

– where the virtues are those stable, deep down, character traits that both govern and informs one's whole life and conduct, and are expressive of and constitutive of human flourishing[23].

By appreciating this different account of the rightness or otherwise of an act, virtue ethics offers a different understanding of right action. To put it bluntly, just because your programme of aid delivery is sensitive to human flourishing as an outcome, this does not mean you are now directed by virtue ethics. However, if you decided to promote human flourishing as an outcome of your practice for virtuous reasons (*"Because, as a virtuous agent, you think it's right"*[24]), and with virtuous motives, then the claim that your practice is directed by virtue ethics holds. This argument highlights another point of divergence between consequentialist ethics and virtue ethics. Within a consequentialist approach, the evaluation of the motivations of agents is derived from the consequences of holding that motivation; the right motivations to hold are those motivations that will, on balance, lead to a greater proportion of benefit over harm. In contrast, virtue ethics can be seen to reverse this evaluation, the ethical evaluation of an act follows, in part, from the motivation of the agent. In this way, virtue ethics has a different approach to the connection between the rightness of an act and the motivation of the agent, a point developed below.

Emotions & motivations

Hursthouse proposes that there is a coherence between acting according to virtue and emotions. We would expect the person acting from or according to virtue to be happy to, or as a minimum appreciate the necessity to, act in such a way, to possibly feel pride and contentment for having acted the way they did; *"the fully virtuous character is the one who, typically, knowing what she should do, does it, desiring to do it"* (Hursthouse, 1999, p. 92). Conversely, we would expect someone who had taken certain virtues to heart to dislike, disapprove, be distressed or deplore the actions of others that do not express virtues they value. That is to say that if I take the virtues of honesty and truthfulness to heart, I will not secretly feel envious of my friend who defrauds her insurer by making false claims about flood damage to their home. Similarly, I will not secretly wish I was not as truthful as I am and wish I was rid of the honesty that is barring me from easy money.

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[23] See Hursthouse (1999), pp28-31
[24] See Hursthouse (1999) p131

Likewise, others would rightly doubt just how truthful and honest I am if they hear me praising and revelling in the underhand fraudulent dealings of my neighbour.

This aspect of virtue ethics, the interlocking of emotions and ethically right action, can be seen as a separation between virtue ethics and ethics based on maximising consequences and an ethic concerned with fulfilling duties and obligations. Hursthouse notes that consequentialist ethics is essentially noncommittal on what feelings, if any, agents are to experience when they act to maximise outcomes. Going further, the question of what emotions are to be felt when maximising consequences can itself be seen as a question of maximisation, that is to say what emotions are best suited to drive people to act in ways that maximise beneficial outcomes, should we encourage fear, or provide praise or hope of reward in order to get people to undertake actions that maximise benefit? For ethics based on the fulfilment of duties and obligations, there is certainly space for emotions to play a part.

However, many everyday examples can be brought to mind where people begrudge or disapprove of duties and obligations, yet still follow them. In everyday healthcare work you will meet the healthcare worker who follows infection control and uniform policy restrictions, yet complains bitterly that they are not allowed to wear fashionable footwear or an expensive wristwatch – a trivial case but one that serves to point out there is no necessary connection between acting in accordance with duty and any given emotional state. By contrast, virtue ethics asserts that there is a necessary connection between acting from virtue and a person's emotions. The consideration of the role emotions play in virtue ethics is a point worth returning to when considering the unique contribution that virtue ethics can make to understanding the lived world of healthcare workers who work in the midst of a disaster.

Having provided a brief account of the place of emotions in virtue ethics, we can turn to examine aspects of motivation and the particular role motivation plays in virtue ethics. The role of motivation in ethics as a general question is extensive and complex. What follows is not intended to be a full working out of this question. What I wish to present is the particular relationship that proponents of virtue ethics see between motivation and action. Just as there is a coherence between emotion and action in virtue ethics, so too a coherence is seen between motivation and virtuous action. Thus, it is not only acting well that counts, but there also has to be a coherence between what is done and the motivations of the actor.

A return to the clinic and the migrant camp

Virtue ethics follows the argument that doing the right act flows from the right motivations. A further claim is that bad motivations mar good acts (van Zyl, 2009). Returning to an example from much earlier in this piece a situation was presented where a decision was made to remove a health

clinic away from a small community to favour a larger community. Multiple motivations can be at play in such a decision and some were highlighted, for example the motivation to bring benefit to a larger number of people that can be seen to follow a consequentialist maximisation approach to right action.

Let us imagine the situation of people fleeing disaster where conflict is growing and there are now three towns with disorganised and improvised encampments of migrants. In each of the towns an initial decision was made to provide a health clinic to each encampment. Now, organised and better served camps have been established to accommodate the increasing influx of migrants. In the first town, the mayor decides to re-site the clinic away from the small, disorganised encampment into the larger organised camp. Their motivation is to serve the needs of the larger population, as they believe this will realise the greatest good and serve the needs of justice as social responsibility (van Hooft, 2006) . To claim that the actions of the mayor are virtuous, they would have to flow from a settled state of good character that goes 'all the way down' with character traits that govern and inform the whole of their life. Further, Hursthouse would claim that to count as virtuous acts, the acts would have to be undertaken for the right reasons, specifically, the mayor, as a virtuous agent, would choose what to do *"because she thought it was right"* (Hursthouse, 1999, p. 123). Remembering that the mayor, as a virtuous agent, would possess those stable character traits that are expressive of, and constitutive of human flourishing, well-being, *eudaimonia*.

In the second town, the mayor also decides to re-site the clinic into the larger camp. But their motivations are not so praiseworthy. There is a growing public outcry over the flow of migrants and the mayor has promised to get tough on illegal squatters and incomers with an eye to upcoming elections. The mayor relishes the hardship caused to the informal encampment and proudly reopens the clinic at its new site in the larger, organised camp. When considering the second mayor, it appears as if they have committed a good act by accident (van Zyl, 2009).

If a consequentialist approach is applied to the two mayors, it becomes difficult to offer different moral evaluations of their actions, as both did the right actions as they both maximised benefit through their choices. However, some may object to the claim of moral equality between the two mayors, some may wish to praise the first mayor for their charity towards the larger population whilst wishing to condemn the self-serving motives of the second mayor. By contrast, despite the similarity of outcome, virtue ethics can arrive at separate evaluations of the actions of the two mayors, seeing the actions of the second mayor being marred by their motivations. However, van Zyl raises the possibility that an evaluation of an action may recognise the beneficial consequences of that act without necessarily ascribing a positive moral value that is worthy of praise and admiration (van Zyl,

2009). When analysing a situation in which a child is save from drowning, but the rescuer sole motivation is to impress the child's mother and gain sexual favours, van Zyl claims:

> "Of course the mother would be happy and relieved that her child was saved, for this is a good result, but it does not follow that we must follow consequentialists in describing the act as <u>morally</u> right." [Emphasis in the original]

<div align="right">(van Zyl, 2009, p. 55)</div>

Slote goes further and classifies actions that have accidentally beneficial outcomes as useful actions, and claims that useful actions ought to be distinguished from actions that are praiseworthy, admirable, and morally good (Slote, 2001, p. 39). Thus, when considering the actions of the second mayor we may concede that they did something useful, but baulk at describing their actions as morally right. In this way, virtue ethics offer a different evaluation of the two mayor's actions, even though the consequences of their two acts are identical.

Let us now consider the mayor of the third town faced with the same question about relocating a clinic or leaving it in place in the disorganised encampment. The third mayor reasons thus *"Certainly re-siting the clinic from the smaller encampment into the larger camp will help more people. But we have already started to provide aid to the smaller encampment, we have a duty of loyalty and fidelity to these people we have started to help. Further, I will make their lives more miserable and wretched by removing the clinic. By contrast, the larger camp has not enjoyed the benefit of access to the clinic so their lot is no worse than it would otherwise be if I leave the clinic where it is."* If we accept that the actions of the third mayor flow from their virtuous character as a person possessing virtues of loyalty and fidelity, then retaining the clinic in the smaller camp is the correct course of action for the third mayor to follow. The actions of the third mayor now raise the possibility that no single course of action provides the answer to the question *"what should I do?"*. Indeed, virtue ethics substitutes the question *"what should I do?"* with the question *"how should I live?"* (Allmark, 1998). This shift of focus from the act to the actor introduces the possibility that different actors in the same situation may act differently but still act well. Virtue ethics can be seen to reject the assumption that there is always a right action and the assumption that any action is *"if not right then wrong"* (Hursthouse, 1999, p. 69).

The understanding that different people in the same circumstances may act differently but still act well is of particular relevance for those facing difficult choices in disasters. As we have seen, disasters are riven with dilemmas and irresolvable choices that arise at the interface of irreconcilable ethical principles. Virtue ethics accepts the possibility of dilemmas that cannot be resolved, or where the resolution requires knowledge of a "*truth beyond our capacity to discover or recognize it*" (Hursthouse, 1999, p. 67). For those facing difficult choices that pit irreconcilable ethical principles

one against the other, the call is to choose well as a virtuous agent. What is right then becomes what the virtuous person would do. In a way, it is the character of the person choosing and acting that makes an action right (Newham, 2015). For those in a disaster, these points can be particularly salient. In a disaster, healthcare professionals are faced with irresolvable conflicts between competing options that invite both benefit and harm. However, healthcare professionals may conclude that actions indicated by their codes of conduct, or actions that seek to maximise outcomes such as survival, or minimisation of morbidity, or maximise the aggregate good, are not the right actions. Virtue ethics validates these misgivings and moves the moral evaluation of actions away from the action and onto the actor who is not only an actor, but also an agent who chooses. The question then becomes one of how to choose and choose well.

Choosing well and practical wisdom

Within virtue ethics, practical wisdom and the process of choosing well are given a central place; *"something that always makes its possession good is wisdom. ... people can be 'too clever by half' but not too wise"* (Hursthouse, 1999, p. 13). Hursthouse's central placing of wisdom is echoed by Finnis (1983). For Finnis practical wisdoms is not just about exercising intelligence or rationality, but rather a basic aspect of human flourishing. Through the exercise of practical wisdom human goods are realised as practical wisdom is *"directive, in charge"* (Finnis, 1983, p. 70). The person who exercises the virtue of practical wisdom is able to comprehend the human good and what makes a human life go well (Putnam, 2012). Further, the exercise of practical wisdom allows for virtuous responses in particular situations, that is to say responses expressive of the virtues that themselves are expressions of human flourishing (Oakley & Cocking, 2001). The exercise of practical wisdom requires a sensitivity to what's at stake in a situation and a commitment to human flourishing and well-being (Horner, 2000). Practical wisdom is in part informed by reasoning well. That is to say reasoning that sees an opportunity and a practical possibility of realising something that has a point, something good to have, something in tune with human well-being and flourishing. Reasoning well relies on sensitivity and perception of what is desirable and worth pursuing and realising, and imagination as to what can be accomplished and how.

The point made above that connects practical wisdom to human flourishing can be seen to offer a response to a concern raised earlier with respect to a disaster orthodoxy that seeks to maximise a set of clinical outcomes. Barilan *et al* question what space is left for morally significant but clinically neutral issues in a consequentialist and maximisation paradigm (Barilan, et al., 2014). Virtue ethics provides space for their consideration, tempering the maximisation paradigm with a sensitivity to human flourishing.; a flourishing that is *"an active and ongoing struggle to maintain meaning and purpose in the face of adversity"* (Edgar & Pattison, 2016). Earlier it was claimed that at one and the same time, healthcare workers who find themselves in a disaster are both an agent to provide aid to

victims and victims themselves. In the similar way, healthcare professionals both struggle to maintain meaning and purpose in their own lives, yet at the same time are in a position to help those they help find meaning and purpose in the face of the imposed and arbitrary tragedies within a disaster. Thus, human flourishing and well-being can be seen as central concerns for those who find themselves in disasters.

As an example of the exercise of practical wisdom and reasoning well about practical matters consider a response to the scepticism of Holland with respect to the place of virtue ethics in nursing practice (Holland, 2012). Holland is not categorically dismissive of virtue ethics *per se*. Rather, Holland sees virtue ethics as doing no work in nursing practice, virtue ethics is redundant. For Holland all answers to ethical questions can be provided by either using a utilitarian/consequentialist or duty-based/deontological approach. It may be true that all ethical decision making, including that needed in disaster contexts, can be accommodated within these two normative approaches, but what is missing from Holland's proposal is any account of how a situation requiring an ethical response is recognised in the first place, a recognition that requires perception of what is at stake *qua* human well-being and flourishing. Further, we can see that Holland's proposal of the adequacy of consequentialism or duty-based ethical approaches requires a considered choice to be made as to which approach best fits the situation in hand and is likely to provide the best response, a considered choice that requires imagination and forward projection of thought and attention. Yet Holland fails to account for how this decision can be made. It can be argued that what is missing from Holland's account is both the wisdom to recognise a situation as requiring right action, and an account of the practical wisdom needed to decide which normative ethical response (consequentialist or duty-based) is best fitted to the circumstances at hand. Holland's approach would also deny the possibility that different people in the same situation may come to different conclusions as to whether a consequentialist or duty-based paradigm is most fitting to the circumstances at hand, and that neither conclusion is better or worse than the other. When considering these points, one can appreciate how virtue ethics is not necessarily in competition with other ethical normative frameworks, but rather is prior to such alternatives. Through practical wisdom one recognises what is at stake in a situation and can appreciate the fittingness of different frameworks and decision processes within the unique and exceptional circumstances that arise in disasters.

These thoughts on the primacy of practical wisdom reflect the idea of Finnis that practical wisdom is prior to any further ethical deliberation (Finnis, 1983). It is practical wisdom that is sensitive to human flourishing and well-being, and it is through practical wisdom that we perceive the moral dimensions of a situation, and it is through reasoning well that we can create responses that are right because they are in step with the good that is human flourishing. In this way we can reaffirm the premise that the good precedes the right. If we return our gaze to the healthcare professional in the

midst of a disaster, their life is one of conflicting duties and obligations, dilemmas over what and how to maximise or minimise outcomes, and requirements to perform computational moral arithmetic that may be cognitively impossible and possibly nonsensical. In such a maelstrom of uncertainty and moral dilemma it is clear that there is space for practical wisdom. Further, I would suggest that not only is there space for practical wisdom but that the exercise of the virtue of wisdom is essential in disasters. An indeed, in the midst of a disaster it may be the case that all we can ask of nurses and doctors is that they reason well and act wisely.

Disaster healthcare as a virtuous practice

Up to this point it may not be obvious that virtue ethics is any better able to address the problems found in disaster contexts than ethics following either a duty-based or consequence maximisation approach. However, I believe virtue ethics provides answers to some of the particular difficulties that arise in disasters and challenge those healthcare professionals who find themselves in a disaster, as both victim and helper.

Practical wisdom in disaster healthcare

Firstly, as presented above, we can consider the role of the virtue of practical wisdom and reasoning well. Through practical wisdom and reasoning well, the good ends that support and are expressive of human flourishing and well-being can be clarified, and the steps needed to realise these ends identified. Practical wisdom is not only instrumental in identifying how to achieve a given end, but it is also evaluative. As Foot observes:

> *"In the first place the wise man knows the means to certain good ends: and secondly he knows how much particular ends are worth"*

(Foot, 1978, p. 5)

The exercise of practical wisdom that is directed at the realisation of human flourishing is prior to any further moral endeavour. That is to say, practical wisdom is needed to decide if and how professional obligations are to be fulfilled in the face of the exceptional constraints imposed in a disaster context. Further, practical wisdom is needed to know when to move from a duty-based professional ethic that champions the needs of the one to a consequentialist approach that seeks to maximise aggregate benefit. The exercise of practical wisdom will also temper the exuberant maximisation of a limited set of good ends, a maximisation that may occasion great harm and violate deeply held professional norms and values. Practical wisdom is needed to judge what counts as enough survival, where to place the balance point between survival, suffering, and the burden of surviving, and when to decide that the needs of the one outweigh the needs of the many. Practical wisdom that is sensitive, perceptive and imaginative will accommodate those morally significant but

clinically neutral issues that a consequentialist approach leaves little space for. Practical wisdom illuminates the opportunities for realising good ends, and also the opportunities for occasioning harm both now and in the future. The exercise of practical wisdom in resource allocation allows for a synthesis of stewardship with rationing, and efficacy with efficiency. Practical wisdom allows for good decision to be made in the face of uncertainty and unknowns, where the good of the decision lies not necessarily in the outcome but how the decision was made by reasoning well. However, practical wisdom needs to be realised in action if human flourishing and well-being are to be actualised. In disasters, such action requires courage.

Courage in disaster healthcare

Courage as a virtue in disaster healthcare can firstly be seen as the willingness to engage in the provision of aid to others in the face of danger. Disaster work is risky, the environment is full of hazards to personal safety; debris, flood water, wildfires, earthquake aftershocks and structural collapse, volcanic dust, the list goes on. Disaster contexts, by their nature, also compromise the provision of the goods needed to satisfy the need for drinking water, food security and shelter. There may be outbreaks of infectious diseases following a disaster through the collapse of hygiene and sanitation systems, or as a result of the overcrowding in temporary shelters and encampments. Further threats may arise from the collapse of policing and governance in the wake of a disaster leading to a break down in civil behaviour leading to looting and physical violence (Humanitarian Outcomes, 2021). At even more extreme events, disaster healthcare takes place in zones of conflict, with healthcare workers subjected to physical assault as an intended target or as 'collateral damage' (International Committee of the Red Cross, 2015). As presented in chapter two, those who work in disaster contexts are acutely aware of the dangers they face following catastrophic natural events (Broussard, et al., 2008; Camacho-McAdoo, 2010; Kayama, et al., 2014; Ketchie & Breuilly, 2010), during disease outbreaks such as SARS-Cov-1 & SARS-CoV-2 or Ebola (Baush, et al., 2014; Catania, et al., 2020; Shih, et al., 2007), or in the midst of conflict (Fardousi, et al., 2019). Yet, despite the very real physical threats, healthcare workers continue to provide aid in the face of their fears. In high threat environments, it is courage that is exercised to stay and not flee to safety, or, in the words of nurses who worked in the Wenchuan earthquake, 2008, it is courage that is needed to *"conquer yourself"* (Li, et al., 2015, p. e46).

In addition to the physical courage to endure and face physical hardships and threats, there is a second dimension to courage. Courage underpins steadfast commitment, care, and strength of purpose (Slote, 1995). Within healthcare, courage is needed to act on one's convictions, to challenge poor standards of care and to challenge organisational structures (Lindh, et al., 2009). Within disaster healthcare we can see that courage is needed to champion the needs of the few against the needs of the

majority, alternatively, courage is needed to turn our back on the one in need in favour of the needs of the many, a turn that seems to conflict with professional inculcated values and norms.

To act well in a disaster, we can claim that courage needs to run in parallel with practical wisdom. It is through practical wisdom that goods ends are discerned, ends that reflect and support human flourishing. These ends in turn become the point or purpose of action, the point of conviction as it were. It is through courage that we steadfastly pursue good ends, even in the face of criticism or obstruction. In disaster contexts, it is courage that ties us to the pursuit of good ends even though the cost to self may be great. We can also claim that as a virtue, courage needs to go 'all the way down', to be a stable and integral part of the healthcare professional's character, as such, courage cannot be 'turned on' in a disaster. Within virtue ethics, being courageous in disaster contexts is not something one sees as the right thing to do *"Now I must be courageous"*, but rather exercising courage in disasters is simply an extension of living out your life. Upon reading the reflections of those caught up in disasters, it is striking how often nurses and doctors recall drawing on hidden strength or unknown courage in the midst of catastrophic events. These reflections show us that that courage is there already, ready to find its expression in the extreme and exceptional circumstances of a disaster, for, as Löftquist observes, *"the virtuous relief worker is doing more than his/her duty; he/she is living out an integral part of his/her character"* (Löftquist, 2016, p. 47). The connection between courage and steadfast commitment and strength of purpose points to a further virtue; the virtue of integrity.

Integrity in disaster healthcare

Integrity as a virtue relates to the consistency and coherence of personal desires, commitments, principles, and values that are deeply held and constitutive of identity (Banks & Gallagher, 2009). If courage can be seen as steadfastness, integrity can be seen as wholeheartedness. Integrity is shown through commitment to ends and a way of living that have a point. In the words of Calhoun, integrity is standing for something, some bottom-line principles that define a person (Calhoun, 1995, p. 246). Calhoun identifies a feature of integrity as standing for something. Standing for something sets boundaries as to what a person is willing to have done through their agency. Standing for something sets the *"limits beyond which she will not cooperate with evil"* (Calhoun, 1995, p. 246). It can be suggested that this aspect of integrity carries particular significance for those who work in disasters where opportunities for being party to harming seem to abound. If we reconsider the actions of the Stanford medical team who withdrew overnight care due to security fears in Haiti, we can appreciate the place of not only the virtue of courage in this situation, but also integrity and commitment to bottom-line principles that some may have refused to contravene.

Whilst such unity of purpose may be admirable, detractors may point to the wholehearted commitment to a cause of genocidal monsters and fanatical terrorists. So, for integrity to count as

virtue it has to reflect and endorse human flourishing and well-being. Further, as suggested above, it is practical wisdom that allows for the discernment of worthy ends, ends that have a point and that contribute to human flourishing and well-being. By these lights, genocidal commitment and fanatical terrorism fail to be considered virtues, but rather vices. However, integrity and wholeheartedness of purpose directed to ends that reflect and constitute human flourishing and well-being requires the courage to act. In this way, we begin to see a unity of the virtues. It is difficult to see how someone could have wholehearted commitment to the realisation of an end yet lack to courage to act, or to exercise great courage in championing a fictitious cause. Such unity can be seen to flow from the view that the virtues express and endorse human flourishing and well-being. As such, they can be seen as different expressions of an underlying unity. Hence, one view of integrity of the virtues is to see different named virtues as anchored in different characteristics of the flourishing human life. But what of integrity in disaster healthcare?

For those who find themselves in a disaster and in a position to help others, integrity firstly gives a unity of purpose and a commitment to stay and do good. This commitment is revealed over and over again in the words of those who have worked in disaster contexts. Healthcare professionals use words such as 'solidarity', 'commitment', 'responsibility' when describing their motivations to either travel to, or remain in, a disaster context (Asgary & Lawrence, 2014; Broussard, et al., 2008; Chiang, et al., 2007; Galedar, et al., 2020; Sato, et al., 2014). The close linkage between wholehearted commitment to provide aid in a disaster and integrity is revealed when those who work in disasters describe it in terms of being the natural or obvious thing to do, or that they could conceive of no alternative but to help. These reflections from those in disasters reinforce the idea that virtues and virtuous action cannot be 'turned on' in disasters, but rather they flow from beliefs and values that 'go all the way down'.

Integrity can also be viewed in response to the disjuncture between competing roles that is felt by healthcare professionals who are at one and the same time both victim and responder. Standard normative approaches to disaster healthcare ethics give no space to the position of the healthcare professional as a victim of the disaster. Professional ethics sits alongside or even over, personal concerns. It is as if the nurse or doctor has two lives, one as a healthcare professional, and one as a off-duty nurse, doctor etc. Within such a view there is a cleavage between a person's personal and professional life with the latter requiring suppression or subordination of the former when the individual is exercising their professional role (Holland, 2010). However, for those in disasters, this view is problematic as the lines of cleavage are replaced with lines of tension that pull in opposite directions as the healthcare professional is at one and the same time a victim of the disaster and an agent who stands in a position to aid others. In much of the writing about professional ethics in healthcare practice, these tensions are not recognised or addressed. However, the exceptional

circumstances that arise within a disaster not only highlight, but also intensify these tensions. Integrity and its concern with coherence and a reconciliation between competing values, principles, and personal desires recognises these tensions and the need to build a coherent sense of self that accommodates the dual positions of victim of the disaster and a healthcare professional in a disaster.

The virtue of integrity respects the diversity of roles and positions an individual finds themselves in. Through the exercise of integrity, coherence is sought between the divergent pressures and pulls that the individual healthcare professional experiences in a disaster. This striving for coherence is possibly a more honest appraisal of the experience of healthcare professionals in a disaster. Striving for coherence accepts that the different roles and persona an individual lives through run parallel and not sequentially. This view presents a whole life view, that is to say a given individual is not to be seen as a father, then a son, then a doctor, then a patient, then a father, then a doctor, then a shopper, then a son etc., but rather as an integrated person who is simultaneously a father, son, doctor, patient, and shopper etc. Integrity speaks to more than a synthesis of competing roles, values, and principles. Integrity also speaks to a coherence of understanding.

In the opening chapter a view of disasters was introduced that saw disasters as points of collapse of understanding and meaning (see p24 above *Disasters and exceptionality* **Error! Reference source not found.**). The term cosmological episode was taken from Weick (1993) to identify those events that make people doubt the universe is rational, logical, and orderly. Such episodes challenge and threaten to unpick the meaning and purpose of existence. It can be argued that, for those living through a disaster, integrity is the essential virtue that allows for sense to be made of what has happened, what is happening and what will, may or should happen in the future. Integrity can be seen as an active response to the challenges to values, beliefs and comprehension that accompany disasters. It can be suggested that the exercise of integrity is a positive response that seeks to rescue and rebuild meaning in a time of deep uncertainty and senselessness. It can be suggested that healthcare professionals who find themselves in a disaster face a particular and unique challenge to integrity. This challenge arises from a demand to perform a rapid shift in ethical practice. Whereas normal times practice focusses on the needs of the individual, prioritises the most in need, and seeks to save those most in peril, disaster orthodoxy places pre-eminence on aggregate benefit thus shifting the focus away from individuals to populations, with the result that lives difficult or costly to save are deprioritised in favour of those who are easier to rescue or whose salvage is more assured. Even though the need for a rapid shift in ethical focussed may be recognised by advocates of the consequentialist and maximisation disaster orthodoxy, they have little to say as to how this is to be achieved. Possibly of greater significance is the realisation that such a shift in ethical focus presents a serious challenge to healthcare professionals:

> *"This shift of focus from caring for an individual to providing optimal health services at the community level does not come naturally for many nurses"*

<div align="right">(International Council of Nurses, 2009, p. 25).</div>

and again from the British Medical Association:

> *"Ordinary moral intuitions can be turned on their head; people who would otherwise have been saved may not be treated"*

<div align="right">(British Medical Association, 2017, p. 23)</div>

Both of these extracts point to the radical reordering of the ethical world, a reordering that some healthcare professionals may see as somehow unnatural, counterintuitive, or even a deeply troubling betrayal of their deeply held professional values. Integrity grounded in practical wisdom that is sensitive, perceptive, and imaginative is needed to recognise when such a shift is needed and to accommodate this restructured ethical world into their established values, commitments, and values. Without such an accommodation, the healthcare professional in a disaster context can be left not knowing what, if anything, matters or has a point worth pursuing. Alternatively, they may act on a certain set of precepts in the face of a competing set, and be left with doubt as to whether or not they did they right thing. Integrity can serve to tie action taken *in extremis* to those values, commitments, and principles that serve as guides to evaluation, judgement, and action in normal times.

A working out of the difficulties of holding steadfast to bottom-line principles can be seen in how disaster victims who are deemed to be too costly to save, or whose survival is uncertain, i.e. those triaged as *expectant*, are managed. The views of Kipnis have already been cited: *On any ordinary day, clinicians would do whatever it took to save this patient's life. Today she must be black-tagged as 'expectant' and left to die, even as those with lesser wounds are treated"* (Kipnis, 2003, p. 63). A healthcare professional may recognise the imposed limit on their ability to save all who could be saved and the necessity to *black-tag* those seriously injured victims whose likelihood of eventual survival is low, in order to maximise aggregate benefit. However, their normal times values, and principles may challenge the assumption that the black-tagged victim should be left to die without pain relief, or without ensuring whatever degree of privacy and dignity is possible to engineer in the disaster context. In this way, rather than simply applying the black-tag and walking on by, the person who is expected to die still receives care and is still respected as a person with value. It can be suggested that even in the face of the radically different approaches to patient care and prioritisation that disasters invite, connections to normal times values and principles can be maintained. We can also see another aspect of integrity at work in this scenario. Previously, integrity was presented as a steadfast commitment to certain bottom-line principles that in turn placed limits beyond which any cooperation or assent to wrongdoing would be intolerable (Calhoun, 1995). Refusing to leave those

expected to die without relief of their suffering, and refusing to allow their death to occur in public view may be the boundaries which the healthcare professional would not cross as the hold fast to their bottom-line principles. By contrast, the healthcare professional who, in the midst of a disaster, sets aside a commitment to the relief of suffering and the maintenance of human dignity in death could be judged to have failed to hold fast to principles previously held to be significant. In this way, they can be said to have failed to act with integrity. This scenario illustrates how integrity as a harmony of the past with the present and future, and integrity as steadfast commitment to principles can be revealed through action in disaster contexts.

Whilst it is easy to recognise that disaster are difficult places to work and those working in disasters may have to compromise certain principles, what is less clear is the significance of the threat to integrity that the contravention of bottom-line principles. The significance of this threat to integrity can be seen to be explanatory, practical, and also speculative. The explanatory significance of the challenge to integrity presented by the contravention of bottom-line principles is tied to an issue already raised in chapter two above when discussing the significance of moral dilemmas and moral uncertainty for those making difficult choices in disasters. It was suggested that in such situations regret is the appropriate emotional remainder for those who have had to make difficult choices between worthy options in situations not of their making that prevented the taking up of all worthy options (Hursthouse, 1999). However, Hursthouse also recognises that some choices result in an agent committing a grave sin and being *"damned if he does and damned if he doesn't"* (Hursthouse, 1999, p. 65). Hursthouse continues by claiming that certain choices a can *"haunt one, fill one with despair, mar and even ruin one's life."* (Hursthouse, 1999, p. 76). In terms of explaining the origins of the marring and ruining of a life, Calhoun's expression of integrity as a steadfast adherence to bottom-line principles provides some insights. For Calhoun, holding fast to a bottom-line principle sets boundaries beyond which the agent will not pass, as to do so would be to cooperate with evil (Calhoun, 1995). Following this understanding of integrity, we can understand how an agent who transgresses a bottom-line principle will *"cooperate with evil, compromise with opponents, and remain silent when their principles and values tell them they ought not"* (Calhoun, 1995, p. 250). Suh a transgression by an agent is not merely a transgression of *a* principle, but, Calhoun argues, a transgression of *her* principle. That is to say the agent with integrity does not 'act on principle', but rather acts on *their own* principle (Calhoun, 1995, p. 248). This understanding of integrity helps understand Hursthouse's marring and ruining of a life that may occur when those in disaster contexts make choices that contravene their own deeply held bottom-line principles that are constitutive of who they are. Such a contravention will make the agent party to an unconscionable evil, a contravention that may haunt them for the rest of their life.

However, some may counter that the situations found in disasters are exceptional and non-ideal and we should have a more charitable view of those who compromise their bottom-line principles in disasters. Some may argue that the maximisation of survival, minimisation of morbidity and the securing of the greatest proportion of aggregate benefit over harm[25] should trump any personal discomfort regarding the transgression of one's bottom-line principles. Calhoun address this possibility directly:

> *"The more deeply entrenched the views, and the more pervasive the actions, which produce a nonideal world, the more intense the integrity question becomes – namely, the question of whether to accede to other's construction of the world by acting as best one can in present circumstances or to act on one's judgement that the world is a bad one and calls upon people to do what no one should be called upon to do"*

(Calhoun, 1995, p. 252)

Calhoun claims that integrity raises the possibility of either acting on our best judgements in the world as we find it, or acting on our judgements of what we ought never be called to do. Calhoun concludes by claiming that in some situations the world can be so bad as to make acting with integrity hopeless. This possibility carries practical significance for those who find themselves in disaster contexts, where the situation may be so bad as to make acting with integrity hopeless.

If it is accepted that acting with integrity is expressive of, and constitutive of, human flourishing, and it is accepted that acting with integrity in the nonideal world of a disaster, then it can be argued that healthcare professionals who find themselves disasters face a significant threat to their flourishing. Those who work in disasters run the risk of having their life marred and even ruined, when they cooperate with acts that transgress their bottom-line principles. It can be argued that such possibilities ought to be confronted by those who choose to go to a disaster. For those who deciding to go to a disaster to provide aid, not only should they consider the physical hardships and the emotional burden of being confronted with large-scale human suffering found in disasters, but they should also recognise the possibility of having to act against their bottom-line principles and being party to acts that they ought not be called on to do. Further, they should recognise that the transgression of steadfastly held bottom-line principles may lead to a level of enduring despair that has the potential to mar their life.

Such a possibility is also carries significance for those who either send others into a disaster, or require those in a disaster to work within a disaster orthodoxy that may run counter to the bottom-line principles of healthcare professionals. In these cases, those in a position of authority ought to have a clear appreciation of the risks to integrity they are imposing on those they exercise authority over.

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[25] In short, the disaster orthodoxy.

Those in authority should recognise that requiring healthcare professionals in a disaster to adopt a consequentialist framework may also require healthcare professionals to transgress their bottom-line principles. Such a transgression carries with it a threat to integrity, which in turns creates the possibility for deep despair that can haunt those who are required to transgress for the rest of their life. For those operating within a consequentialist framework, such despair and marring of lives is a cost that is off set by the maximisation of aggregate benefit. However, the haunting despair of healthcare professionals required to transgress their bottom-line principles always remains a price to be paid, it may be off set, but it never disappears. In terms of practical considerations, as a minimum, those who require others to transgress their bottom-line principles need to recognise the cost to the individual of this. Further, it can be suggested that those in authority should endeavour to create environments that allow healthcare professionals to act with integrity. As such we can see a further way in which disaster aid may be designed to be virtue permissive by allowing healthcare professionals to preserve their integrity.

A further significance of the virtue of integrity is more speculative and returns to the contention that some disasters are disasters because they involve the irrevocable loss of something held to be intrinsically valuable (see p23 above *Irretrievable loss in disasters*). Some may have read Hursthouse's statement that some choices *"haunt one, fill one with despair, mar and even ruin one's life"* and found themselves agreeing in part, agreeing that some choices do haunt one and some choices do fill one with despair, but hesitate at the conclusion that some choices ruin the lives of those who make them. It can be suggested that the ruination of a life may stem from the irrevocable loss of integrity that arises when steadfastly held principles are transgressed. Such transgression is not only a loss of integrity, but also an insult to human flourishing, in so far as the virtue of integrity is constitutive of human flourishing, *eudaimonia*. Further, it can be suggested that for some agents such a transgression is so grave, and the evil to which they are party so awful, as to make the recovery of integrity unobtainable. In this way, for some in disasters, they will experience an irretrievable loss of integrity, integrity that is held to have intrinsic worth as a constituent of human flourishing. In this way, for some, the loss of integrity carries the hallmarks of a disaster as the irretrievable loss of something of intrinsic value. Perhaps it is these aspects of the loss of integrity that explains how some lives can be permanently marred when a choice is made that transgresses a bottom-line principle. The possibility of the irretrievable loss of integrity provides support for Hursthouse's assertion that one possible outcome of choice is the ruination of the life of the one who chooses, a ruination that also carries the hallmarks of a disaster.

Through these reflections it is possible to see how a virtue of integrity is realised through a process of integration that sees an individual's past and present, futures that are hoped for or feared, crafted into a coherent whole that makes sense and has a point. However, in the exceptional contexts

found within a disaster, integrity can be problematic. Contextual constraints may make it impossible to act on the values, principles and commitments that form the vital constituents of personal identity. Disasters are not only riven by ambiguity and uncertainty as to what to do, but they also contain irresolvable tragic dilemmas from which it is impossible to emerge with clean hands. In such dilemmas there may be no unique right thing to do, as there may be multiple opportunities to do good, any of which will realise some good end but leave other good ends unfulfilled. Alternatively, good ends may be realised only through acts that are judged as unethical or morally proscribed. Such difficulties raise the question of whether it is possible to act virtuously when faced with a dilemma.

Dilemmas and acting well

Dilemmas and hard choices seem to be endemic in disasters, particularly for healthcare professionals who seek to provide aid in disaster contexts. Drawing on the experiences of those who have found themselves in disasters, either by accident or intent, we see dilemmas as a recurring theme. Those in a disaster may be faced with two or more options to realise some good end or prevent some harm, but also appreciate that the options are incompatible, that is to say to do A or B but not A and B. Alternatively, those in a disaster may be faced with a course of action where there are compelling reasons to both proceed and refrain from that course of action.

As discussed previously, one response to such dilemmas is to propose that dilemmas are merely apparent rather than real. This claim sees moral dilemmas as episodes of uncertainty rather than a real conflict of irreconcilable principles (Marcus, 1980). In Marcus' analysis of moral dilemmas, a claim is made that single-principle moral systems do not give rise to real dilemmas that involve a clash of irreconcilable principles. Thus, for those working within a consequentialist paradigm, it is a question of resolving the uncertainty about which course of action will garner the greater proportion of benefits set against harms and burdens. Whereas, for those operating in a system of plural duties and obligations, there may be uncertainty about which duties override others or how far the claims of a duty should be followed, but these uncertainties can be resolved by applying the appropriate exception clauses to absolute principles, through rank ordering of duties and obligations, or by assigning weight to different duties and obligations (Marcus, 1980).

One consequence of Marcus' analysis of non-dilemmas is that guilt, whilst acutely felt by those making difficult choices, is not an appropriate ethical remainder when faced with a constrained world not of their making. For Marcus, regret is the appropriate ethical remainder for those who find themselves in a world that is so ordered as to make it impossible to fulfil the duties they are committed to. Alternatively, for those operating within a consequentialist framework, there may be regret that more could not have been achieved but there is no room for guilt as guilt implies the possibility of acting in another manner (Marcus, 1980). Thus, even though harms and burdens are created or

allowed in the pursuit of the maximisation of aggregate benefit, no-one is morally harmed as the rightness of the action lies in the maximisation of benefit and any harms occasioned are compensated for by the benefit gained. Therefore, whilst one might regret the harms occasioned in the pursuit of maximal aggregate benefit, one ought not to feel guilt as guilt is *"directed to a wrong or sin committed and what wrong or sin has been committed?"* (Hursthouse, 1999, p. 76).

However, the experiences of healthcare professionals and others who have found themselves in disaster contexts presents a problem for this analysis. Those in a disaster not only experience regret but also feel guilt and remorse, they know they could have acted differently[26]. If all so-called dilemmas are in fact mere episodes of uncertainty, we have a problem accommodating the moral residue of guilt and remorse felt by healthcare workers in and after working in disaster contexts. Either we have to reject the guilt and remorse felt as misplaced, or we reject the notion that there are no real moral dilemmas. However, there are grounds for rejecting the notion that moral dilemmas are not real. Williams argues that true dilemmas do exist, and these flow from the existence of a plurality of values and principles that are at times irreconcilable (Williams, 1981). This view of Williams is also reflected in Marcus' analysis of moral dilemmas where dilemmas arise at the interface of multiple principles. For both Marcus and Williams, dilemmas are real and arise from the collision of irreconcilable principles[27]. The reality of dilemmas negates the negation of guilt, that is to say real dilemmas give space for real guilt. Guilt that is anchored in the possibility of having acted in another manner. Accepting the reality of dilemmas is sympathetic to the guilt and remorse of those who work in disasters. The alternative is to deny the validity of the feelings of guilt and remorse experienced by those who work in disaster contexts, but rather see these individuals as needing to 'get a grip' and exercise *"firm professionalism"*.

One further consequence of the reality of genuine dilemmas in disaster healthcare practice is the realisation that there is no unique right thing to do. This also introduces the possibility that two individuals in the same situation may legitimately come to different conclusions about what is the right thing to do. By contrast, it can be claimed that single-principled moral systems struggle to accommodate the possibility that two separate individuals can validly arrive at different conclusions as to what is the right thing to do in a given situation; one of the individuals must be ill-informed or mistaken in the priority and weighting to be given to different ends, or subject to internal bias or prejudice. However, virtue ethics is open to the possibility that two individuals can arrive at different legitimate conclusions as to what to do in a given context:

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[26] See for example the experiences recounted by Almonte (2009), Camacho-McAdoo (2010), Catania, et al. (2020), and Ketchie & Breuilly (2010).

[27] The collision of irreconcilable principles can be seen as the outworking of the problem of incommensurability where principles and values are seen as radically different making it impossible to evaluate which principle wins or outweighs another.

> *"... two genuinely virtuous agents are faced with the same moral choice between x and y, in the same circumstances. And, acting characteristically, one does x and the other does y."*

<div align="right">(Hursthouse, 1999, p. 68)</div>

A point to note here is that effort was made to identify a right action, a right thing to do, hence 'different conclusions as to what to do', not 'different conclusions as to what is the right thing to do'. Within virtue ethics and within dilemmas, all that can be hoped for is that the individual in the dilemma acts well through the exercise of their virtues. This view of action in a dilemma is fundamentally different from the view of action from within a single-principle moral system such as duty-based or consequence-maximisation schema. An obvious question for those advocating for a virtue-ethical approach to dilemmas is; what does acting well look like?

In response to the question as to the nature of acting well, the answer resides in the exercise of virtues – acting with courage, being accountable and taking responsibility. Steadfast commitment to virtues that reflect and support human flourishing, exercising judgement that is sensitive and perceptive to what is at stake and for whom, being imaginative as to the consequences of actions now, acting with integrity and standing for something that is seen as worthwhile and having a point. For some this seems a tall order, saintly even and out of the reach of normal people. These qualms may be even more acute when considering the circumstances that a healthcare professional may find themselves in amid a disaster. For those in a disaster the question arises as to how to act well in the chaos, destruction and overwhelming need found in a disaster?

With regard to the concerns over the idealised nature of much talk of virtue and the virtuous individual, virtue ethics is arguably more accommodating than is often supposed to the realities of action in a disaster context. By focussing on acting well, we open the door to the use of a language of gradation, i.e. 'acting fairly well', 'acting very well', 'acting somewhat well'. The use of such language is comprehensible, we understand what message is being conveyed. Introducing the language of gradation accepts that in real life and in different circumstances different people, or the same person in a different setting, will exercise their virtues to a greater or lesser extent. In this way, we can see how, in a disaster context, someone's courage may fail, or they fail to perceive morally significant dimensions in a situation, or falter in the face of honest accountability, or waiver in the wholehearted commitment to core values and principles. Whilst in other situations, or with different individuals in the same situation, we may see the exhibition of great courage in the face of danger, or the exercise of thoughtful deliberation that is perceptive, sensitive and imaginative, or we may see individuals willing to hold fast to core values and in the face of criticism and act with integrity. An analogy can be seen between the exercise of virtues and performance skills such as being a pianist:- some performances will be flawless, full of energy and creative panache, whilst other performances

will be clumsy, awkward, and littered with badly played notes. However, despite the poor performance, the individual does not stop being a pianist. Likewise with virtuous practice, sometimes it goes well, yet sometimes expressing the virtues is awkward, clumsy and error strewn But, importantly, these bad performances do not stop you being a virtuous individual, rather they serve as the fodder for reflection and personal development (Annas, 2004, p. 73). Whilst the disaster contexts provide opportunities for the individual to transition from a clumsy novice towards a more accomplished expert, the dilemmas faced in disasters can be profoundly damaging to individuals.

Some dilemmas are marked by tragedy, and in disasters even more so. For Williams, tragic dilemmas are ones in which no matter what an individual does, they are justified in thinking they have done wrong (Williams, 1981); to return to a quote from Hursthouse, the agent is *"damned if he does and damned if he doesn't"* (Hursthouse, 1999, p. 65). A feature of tragic dilemmas is that the individual cannot emerge with anything other than dirty hands, hands that have been plunged up to their elbows in filth and blood (Walzer, 1973, p. 161). Emerging stained and tainted is revealed through the moral residue of guilt, remorse and regret felt by healthcare workers who have been inside a disaster *"where all options carry a bad side"* (O'Mathúna, 2016, p. 11). For some, the moral residue of guilt and remorse is something to be worked through or treated, or accommodated into the individual's post-disaster life. And indeed, it is true that we are getting better at helping those who have worked in disasters cope with the emotional and psychological consequences of their work. However, Hursthouse goes further than moral residue.

Space has already been given to Hursthouse's approach to tragic dilemmas that hold the potential to mar and ruin a life. They may arise from the failure to act with integrity, leading to a the transgression of bottom-line principles and being party to acts that one should not be called upon to do. We can go further and claim, under virtue ethics, tragic dilemmas are those situations that prevent the individual acting well. The tragedy of the dilemma comes from the damage it does to the individual's flourishing, well-being or *eudaimonia*. It can be suggested that for those who work in disasters, brining aid to those in need can be personally rewarding, however the possibility of not acting well and of a failure of integrity needs to be appreciated. Not only should these possibilities be entertained, but the impact these may have on human flourishing and *eudaimonia* be recognised and appreciated.

The place of virtue ethics in organised disaster response

Up to this point one may agree that certain virtuous characteristics have an important role in guiding decision making by an individual healthcare professional in a disaster. One may also be sympathetic to the view that different individuals placed in the same dire situation may arrive at different conclusions about what they should do. However, one may question how individuals should

be trained to make difficult decisions grounded in an exercise of virtue. Further, one can point out that an approach anchored in the decision making of a virtuous practitioner carries the risk of a cacophony of poorly coordinated and potentially conflicting decisions being made within teams that are drawn together to respond to disasters. These points acquire a salience when consideration is given to team working in disasters. Effective team working requires a common sense of purpose and intent, a shared situational awareness based on shared and freely communicated information. Within such an environment, one might feel that there is little space for the discretionary individual judgements that virtue ethics appears to promote. The question then becomes one of how virtue ethics, with its focus on the individual and their virtuous character traits, can be aligned with realities of working cooperatively in teams that respond to disasters.

In responding to the issue of preparing individuals to meet ethical difficulties in disasters, two points can be made. Firstly, ethical competence can be seen to be an integral constituent of professional competence. Any form of professional competence can be seen to comprise the successful integration of cognitive competence *(knowing that and knowing why)*, functional competence *(know how; psychomotor and cognitive skills, interpersonal and communication skills)* and ethical competence *(knowing what is right and doing what is right)* (Weeks, et al., 2017). This view of professional competence reminds us that preparing healthcare professionals to meet the ethical difficulties embedded in disasters is not an add-on, or supplemental training programme that is presented alongside or subsequent to curricula that seek to impart knowledge, understanding and skills. Rather, ethical competence is a fundamental pillar that underpins all professional practice in disasters. It is interesting to note the relatively low profile ethical preparation receives in curricula designed to prepare healthcare professionals for working in disasters; in deed in a review of disaster training opportunities in one review, only 2% of training programmes included ethical concerns as a core competence (Hansoti, et al., 2016).

However, educational programmes and resources that address ethical difficulties encountered in disaster response work do exist. Many of these make use of case-based learning or immersive simulation to provide opportunities for debriefing and structured reflection so as to generate personal insights and achieve transformative learning (DeCamp, et al., 2013; Greco, et al., 2019; Humanitarian Health Ethics, n.d.; Machin, et al., 2019). Such learning strategies can be seen to be compatible with endeavours to develop healthcare professionals as virtuous practitioners. Real or constructed case-studies and highly realistic simulations allow participants to practice the repeated exercise of virtues such as practical wisdom, integrity and courage. It can be argued that such exercise, from a virtue ethics perspective, is needed if such characteristics are to become constitutive elements of the person that go 'all the way down'. Whilst such educational and development programmes can be seen to serve the individual well, questions can be asked as to how disaster responders, specifically those who

choose to go to a disaster voluntarily rather than have a disaster visited upon them on their doorstep, are selected and prepared.

For those sceptical of virtue ethics, a criticism that can be raised is that such an approach requires saintly or super-human qualities from disaster responders. Two responses can be put to this challenge. Firstly, empirical evidence tells us that for many disaster responders, going to or staying in a disaster is not seen as super-human or saintly, but as a response to do good, to express solidarity and to make a difference (Blake, et al., 2013; Komenská, 2017; Twigg & Mosel, 2017). More recently, many have been struck by the public response to SARS-CoV2 pandemic, characterised by multiple instances of charitable giving, altruism, and commitment and solidarity to those in need (Kemp, 2021). Such evidence can be seen to act as a counterbalance to the assumption that disaster responders are exotic, other worldly or saintly; disaster responders are just normal people motivated by a desire to realise the good but who find themselves doing extraordinary things in exceptional circumstances. When Hurricane Katrina struck New Orleans many of the large hospitals were inundated with flood water, lost power, water and telecommunication services and were subject to threats of violence. One such hospital was Charity Hospital. The following is a response given by the director of critical care services for Charity Hospital to the question as to why hospital staff stayed in the hospital despite imminent threats to their own life and concerns about the welfare of their families:

> *"I just stayed in there because I had work to do, nurture those patients as best we could. I didn't leave because I didn't want to … People were just doing what came natural to them"*

Dr Bennett deBoisblanc

(I Was There: Hurricane Katrina: Heroes of Charity Hospital, 2015)

This quote captures what for some is the naturalness of disaster response that many responders feel; responding to disasters is, for many, an unremarkable and natural thing to do.

The second response to the charge that virtue ethics requires individuals to possess super-human saintliness is more conceptual. For many 'virtue' conjures up ideas of excellence and even puritanical prissiness and Victorian moral disapproval. Yet proponents of virtue ethics contend that such views are erroneous. Virtues are not super-human powers possessed by only an elite few, but rather virtues are the interlocking components of human flourishing. Returning to the issue under consideration – preparing healthcare professionals for disaster work – we can draw analogies with performance arts. As introduced above, one can see similarities between developing and expressing virtuous behaviour and other performances such as musical accomplishment (Annas, 2004). Developing performance skills, such as piano playing, requires repetition and rehearsal, personal reflection on performance and also feedback from others. Likewise we can see how simulation based learning environments can provide the environments that allow for repetition, rehearsal, reflection and feedback. Continuing the analogy we can see

the potential contribution of exemplars of virtuous practice that can serve as models for emulation. In these different ways we can see that virtue ethics can inform both how and to what end, healthcare professionals can be developed for their future roles. Yet there is a risk with this approach that is very individualistic in nature; the risk of creating square pegs that do not fit easily into round holes.

If it is accepted that virtuous practice can be developed through repetition, rehearsal, reflection and feedback, the possibility of acting well may remain constrained by the environment within which healthcare professional practice. Such constraints may be even more significant in disaster contexts. Practice environment constraints may flow from the availability or otherwise of equipment, material resources and staff, from budgetary constraints, from institutional policies and imposed mandates (Cartolovni, et al., 2021). Such constraints can lead to moral distress as healthcare professionals find themselves being asked or forced to act in ways that compromise deeply held convictions, in turn threatening their moral integrity (Carse & Rushton, 2018). In response to these constraints, it can be suggested that environments should be created that allow healthcare professionals to act with ethical integrity, but to do so in concert with other healthcare professionals, grounding their practice in a core set of institutionally validated values and beliefs. Rushton and Sharma describe this as a culture of ethical practice that integrates values and norms of behaviour with systems and structures so as to support moral agency and integrity (Rushton & Sharma, 2018). Further, at a practical level a culture of ethical practice is expressed through:

> *"Transparency: normative expectations that are clear and consistently upheld by leaders and employees: conditions that enable and support ethical conduct; safety to raise and discuss ethical concerns; and clear and fairly and consistently applied sanctions for unethical behavior and rewards for ethical conduct."*
>
> (Rushton & Sharma, 2018, p. 208)

Rushton and Sharma propose three elements, or foci, that need to be developed in order to create a culture of ethical practice (Rushton & Sharma, 2018, pp. 215-221). Firstly there has to be a focus on the individual, allowing them to develop insights into their own values and norms, their own sense of right and wrong, their own moral sensitivity, something described as discovering their own inner ethical landscape (Rushton & Sharma, 2018, p. 223). Such inward looking examination allows for the clarification of what counts to the individual, a process that expresses the virtue of integrity.

Moving from the individual practitioner to the context of practice is the second focus for development. There is a need to understand the nature and origin in the systems, structures, and processes that limit, allow or encourage ethical practice. Understanding also extends to the interplay of individuals, power relationships and narratives that may form an unwritten architecture of norms and expectations, rewards and sanctions (Rushton & Sharma, 2018, p.

228). Generation of such understanding requires collective deliberation that brings to the surface the different outlooks, priorities and moral imperatives at play in a situation. Such collective deliberation is also a form of practical deliberation as it is concerned with what to do in the face of ethical dilemmas and uncertainties (Boin & Nieuwenburg, 2013). Such cooperative deliberation draws on the virtue of practical wisdom, that is to say it is addressed to concrete problems where one has to act. Understanding and practical deliberation is brought together with the personal insights generated through the personal exploration of the practitioner's inner moral landscape to generate actions that support ethical practice where acting with integrity is the norm. This forms the third focus of developing a culture of ethical practice. Rushton and Sharma describe this phase as *"intentionally developing policies and practices that align essential ethical values, arise from understanding the patterns that produce the challenges, and create concordance with the methods used to address them"* (Rushton & Sharma, 2018, p. 234). In this way, focussed interventions can be initiated and sustained that support healthcare professionals in their endeavours to act with integrity and in concert in less than ideal circumstances.

Having generated some insight into how individuals can be supported to develop themselves as virtuous practitioners, and considered how systems can be designed to support ethical practice, a final practical issue for consideration is how an understanding of virtue ethics can influence how and who to recruit into disaster response work. When considering this issue it is important to recognise the diverse circumstances that lead to healthcare professionals working in disasters. For some, working in disasters is forced on them by circumstances when a disaster occurs on their doorstep. Secondly there are those professionals whose primary occupational focus lies elsewhere, but where being recruited into disaster response work is an accepted, though not core, element of their work; for example domestic fire and rescue services, military personnel who may be sent into a disaster context. Finally there are those disaster responders whose primary focus is disaster response. Some of this latter group may be engaged in full-time disaster response through national government agencies, non-government organisations (both large and small in scale), and international/intergovernmental agencies. Alternatively, this latter group may comprise responders who put themselves forward to respond to specific disasters, either as local or international volunteers or through short-term contracted work.

Parallel to the diversity of routeways into disaster work, there are also a diverse range of motivations and reasons to respond to disasters. For some it is part of their established pattern of work, whilst others are driven by duty and a felt need to respond to human suffering, whilst some respond in order to 'make a difference', to fill out their personal resumé, or to seek excitement and challenge (Greenberg, et al., 2019; Hunt, 2009; Lai & Spence, 2014;

Oberholster, et al., 2013). In the face of such diversity of ways, means, reasons and motivations, the question of recruitment into disaster response work can be sidestepped with the response *"Well, it depends"*. However, a more positive response is to focus on those healthcare professionals who express a voluntary intention to engage primarily in disaster response work, either locally or internationally. For these professionals, questions of who is recruited acquires a greater degree of importance.

Creating cultures of ethical practice that embody shared values and inform not only clinical practice but also the structures, policies, and institutional norms can be seen to offer a response to the concern that virtue ethics can result in a series of uncoordinated discretionary judgements. The unity of values, ends, and means that a culture of ethical practice comprises brings a unity to decision making that offers a counter to the criticism that virtue ethics carries the risk of a cacophony of poorly coordinated and possibly contradictory decisions and clinical practices. However, the culture of ethical practice operating within in a team can only be sustained if those recruited to that team support its culture. This raises the question of how and who to recruit into disaster response work.

Recruiting to disaster response work and humanitarian assistance

If it is accepted that ethical competence is a core element of any form of occupational competence, then it can be argued that there should be nothing unusual in incorporating some form of assessment of ethical values and orientation into the recruitment process; after all we think nothing unusual in assessing an employment candidate's technical knowledge and psychomotor or interpersonal skills in the recruitment process. That being said, it is surprisingly difficult to locate any literature that provides insights into how to incorporate an assessment of ethical competence into the recruitment process. However three documents stand out. One of the first studies to address the issue of managing personnel in disaster response and humanitarian action was the <u>Code of Good Practice</u> produced by People in Aid in 2003 (People in Aid, 2003). Principle five of this good practice guide address recruitment and selection. However, this section of the guide makes no mention of ethical orientation, personal or institutional values that can, or should be used in the selection of aid staff. This is a disappointing omission, but can be seen to flow from the world view that underpins the development of the code of good practice. This world view takes as an assumption the intrinsic goodness, positive, altruistic and humanitarian motivations and dedication of those who put themselves forward for work in disaster response and humanitarian aid[28]. Whilst commendable, there is no logical reason to accept that all those who put themselves forward for work in

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[28] See the introduction to the People in Aid code of good practice (People in Aid 2003).

disaster settings are so motivated, neither is it clear that such motivations can be sustained in the less than ideal constrained contexts that occur in disasters.

A more focussed assessment of the recruitment processes used in the humanitarian sector has been produced by European Humanitarian Action Partnership (EUHAP) (European Humanitarian Action Partnership, 2016). EUHAP undertook a review of the different recruitment processes across a range of organisations that respond to disasters and humanitarian crises, in total thirty two organisations across eleven countries were recruited into this study. One strand of this study examined how the Humanitarian Action Qualifications Framework (HA QF) (Aardema & Muguruza, 2014) was used in the selection process. The HA QF identifies six dimensions of a meta-profile that is held to encompass all roles within the humanitarian aid sectors. Two of these dimensions have a particular ethical grounding;

> ▪ *'Humanitarian commitment' comprises in the meta-profile both a commitment to the general humanitarian principles, appreciation of existing humanitarian standards and codes, a professional commitment to the mission of one's humanitarian agency, as well as maintaining one's ethical integrity and respect for all human beings in their diversity.*
> ▪ *'Context analysis and reflection' refers to an understanding and situational awareness of the humanitarian context, as well as the need to analytically analyse its complexities and critically reflect upon one's actions in this context in order to learn for the future.*
>
> (Aardema & Muguruza, 2014, p. 452)

Results from the EUHAP study were somewhat disappointing with only 6% of responding organisations stating they usually used the HA QF dimensions in their assessment of skills and competences, with 62% of agencies stating they never or rarely uses the framework. When exploring the relative importance of the different dimensions of the framework it is encouraging to see 'humanitarian commitment' and 'context analysis and reflection being ranked highly as either important or fundamental areas of competence. What is less encouraging is the fact that neither of these two dimensions achieved primacy, always lagging behind competencies related to leadership and project management (European Humanitarian Action Partnership, 2016, p. 9). It is also interesting to note how potential employees[29] were assessed during the recruitment and selection process. The dominant methods used to assess skills and competence were, in order or priority, interview, experience and references, whilst simulations were rarely used. This is disappointing as one can suggest that simulations, either immersive or through the use of case- or problem- based abstracted simulations, allow for the exploration of values and motivations, and also reasoning about moral difficulties and the application of practical wisdom. The reliance on interview/experience/reference to the exclusion of other possible methods for assessing ethical competence is not restricted to the humanitarian aid and disaster response sector, but is also seen in recruitment processes for healthcare

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[29] Although the term employee is used here and subsequently, the issues discussed in this section equally apply to volunteers who are being selected for disaster response or humanitarian aid missions.

professions where case studies and case examples are rarely used to assess ethical behaviour (Poikkeus, et al., 2014). This area of weakness also offers a potential area of development, that is to say to move away from a reliance on interview/experience/references and incorporate a wider range of methods to allow for a more rounded assessment of a candidate's ethical competence. Methods such as case analysis and Situational Judgement Tests (Lievens, et al., 2008) allow using events and contexts that mirror those to be encountered in the disaster response to present opportunities for exploring issues of practical wisdom, and acting with courage and integrity.

The third and final document worthy of mention has its origins not in healthcare, or disaster response or in humanitarian aid, but in global business recruitment, namely the guidance for assessing potential employees produced by the Chartered Global Management Accountant (CGMA) project (Chartered Global Management Accountant, 2016). There are two particular contributions this guidance offers that are of note. Firstly, it sees the issue of ethical competence of potential future employees as a cross cutting theme that spreads across phases of the recruitment process. The process begins with identifying the values and ethical profile of the organisation and the expected characteristics of members of that organisation, for example trustworthiness, transparency, integrity and openness. This initial base-line activity can be seen as another expression of Rushton and Sharma's understanding phase of building an ethical culture as discussed above (Rushton & Sharma, 2018). From this level of understanding role profiles and applicant specifications can be created that align with the organisation's ethical culture. Such a process also allows for deliberation as to the qualities sought from potential employees, qualities that will mesh with and support the organisation's ethical culture.

Moving beyond these initial phases the practicalities of recruitment begin. At a pre-screen phase, the applicant's *curriculum vitae* can be reviewed for evidence of the embellishment of educational achievements, experience and employment history. Such embellishments may raise doubts as to the applicant's truthfulness transparency and integrity. Additionally, social media profiles may be accessed and reviewed for content that either confirms or conflicts with the candidate's stated ethical commitments. During the interview phase the candidate's knowledge of disaster specific ethical issues can be explored and discussion of cases and scenarios used to gain insight into the candidate's values and moral deliberations. For the CGMA, ethical due diligence continues after the interview phase through conformation of professional standing and educational achievements to establish issues of veracity and openness. In this way, the ethical culture of the organisation and the need to assess the ethical character of employees is seen to run across all phases of the recruitment process.

The above discussion focusses very much on how and who to recruit into disaster response and humanitarian aid work, either as a paid employee or as a volunteer, making some explicit

connections between recruitment processes and key virtues. However, virtue ethics also makes demands on the organisation, especially with respect to truthfulness and transparency. It can be suggested that any organisation that espouses a culture of ethical practice must in its turn be open, honest and candid to the organisational members regarding the risks they face through their work. When considering healthcare professionals who find themselves in disaster contexts, one can easily bring to mind the need for candour regarding the threat of violence, robbery, murder and kidnap, individual may face. Candour is also needed regarding the threats posed by working in infectious disease outbreaks, and the threats to personal health that arise from working in environments with poor hygiene and sanitation systems. However, from a virtue ethics perspective, there is another form of harm that those working in disasters are exposed too. The opportunities for moral distress and lasting moral injury abound in disasters, as highlighted above when discussing the experience of those who find themselves in a disaster. Employing Hursthouse's analysis, there is a real risk that disasters will cause moral injuries that will mar a person's life from that point onwards, particularly when an individual has found themselves party to acts that transgress deeply held values and principles. It can be argued that one of the defining features of a disaster is their moral tragedy and the inability to emerge with clean hands. If this is so then that risk needs to be communicated to those eager to travel to and engage in disaster relief.

To conclude, virtue ethics provides a way to understand how healthcare professionals can be prepared for disaster response work. Virtue ethics can also inform how organisations can develop cultures of ethical practice that support the moral agency and integrity of healthcare professionals. Further, a shared culture of ethical norms, values and behaviours allows disparate virtuous practitioners to work in concert to realise the ethical framed intentions of the organisation. For those who have responsibility for the recruitment of paid employees or volunteers into disaster response work, issues of ethical competence and ethical due diligence cut across all phases of recruitment. Virtue ethics can be used in who is selected and the methods used in such selections. Virtue ethics can be used to frame the characteristics sought from potential employees or volunteers. In turn, these characteristics can be configured to align with the ethical culture of the organisation. Selection methods can be devised that explore and test virtues such as trustworthiness, openness and integrity, and the ability to reason well and bring practical wisdom to bear on ethical issues encountered in disaster contexts. Therefore, virtue ethics not only helps explain the reality of being a healthcare worker in a disaster, but virtue ethics can have practical applications in the selection and preparation of responders, and develop a culture of ethical practice in organisations.

Concluding thoughts on the place of virtue ethics in disaster healthcare practice

Virtue ethics provides a radically different approach to moral questions that is focussed on the individual as a moral agent. Virtue ethics claims that there are personal characteristics that are good

for the possessor to have as they contribute to, and constitute human flourishing. These characteristics unite desire, motivation, emotion, and reasoning, they are stable and go 'all the way down' in the person's constitution. These are the virtues. Through its focus on the individual as a moral agent, virtue ethics accommodates the reality of the healthcare professional who must decide in the exceptional and pressed circumstances that arise in a disaster.

For those concerned with the situation of healthcare professionals who find themselves in a disaster, three virtues can be identified as playing a central role in the life of the virtuous moral agent: practical wisdom, courage, and integrity. Practical wisdom is sensitive to what is at stake and for whom, it is perceptive and also imaginative in anticipating future states. Practical wisdom allows for the discernment of what ends are worth pursuing and the how to realise those ends. Courage is not only the soldier's courage to face the physical threats and dangers found in a disaster contexts, but also the courage to hold steadfast to principles and commitments that are deeply held, and in turn constitutive of human flourishing and well-being. Integrity is expressed through wholeheartedness and standing for something on principle. Integrity can also be seen as a response that is needed to the splits and fractures that disasters threaten to impose on individuals who live in and through them.

For some, these points regarding the place of virtue ethics may be appreciated but scepticism may still exist. Those sceptical of the value of virtue ethics in disasters may reject virtue ethics on the grounds that it fails to provide action guidance. Alternatively, some may recognise the worth of virtue ethics but claim that it adds nothing to the consideration of the situation of healthcare professionals in disasters; that is to say consequence-based or duty-based ethical frameworks provide all the answers to the problems encountered in disasters, thus rendering virtue ethics redundant.

In response to the claim that virtue ethics does not provide action guidance, a counter claim is made that virtue ethics does provide action guidance. One can turn to Hursthouse's development of 'V-rules' (Hursthouse, 1999, pp. 36-39), or Macintyre's account of the regulatory nature of 'practices' (MacIntyre, 1981, pp. 169-189), to find cogent arguments in favour of the action guiding potential of virtue ethics. However, for those embedded in duty-based or consequence-based ethical frameworks, virtue ethics action guidance may seem alien. In virtue ethics, action guidance does not flow from adherence to an external rule book of principles, an approach that Annas characterises as the *"technical manual model"* (Annas, 2004, p. 63). But rather from reasons that are internal to the agent, reasons that are the agent's own and expressive of the virtues of practical wisdom, courage and integrity[30].

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[30] See also Slote's account of agent-based virtue ethics (Slote, 1995).

Some may concede that virtue ethics does provide action guidance, but still contend that virtue ethics adds nothing new to the understanding of the difficulties faced by healthcare professionals in disasters, duty-based and consequence-based accounts are sufficient. However, a consideration of virtue ethics presents different insights into the position of healthcare professionals who face dilemmas in disasters. For those operating in a single-principle moral schema such as 'maximise aggregate benefit' or 'save most lives', apparent moral dilemmas may be dissolved into instances of moral uncertainty where there is a right thing to do ('maximise aggregate benefit' or 'save most lives') but uncertainty as to how to realise that principle in the particular circumstances found in a disaster. Alternatively, real dilemmas can be seen to arise at the interface of plural moral principles that may, in some situations, be irreconcilable, such as 'respect autonomy and reject coercion' set against 'save most lives', or 'distribute aid in proportion to need' set against 'withhold aid from those too costly to save', or 'save all who can be saved' set against 'minimise suffering'. Advocates for duty-based or consequence-based ethical frameworks may respond by rank ordering principles or introducing side constraints, in effect extending the content of Annas' 'technical manual'. Such an approach may be successful in many cases, however there may be irresolvable tragic dilemmas where one is *"damned if one does, and damned if one doesn't"*, even more so in disasters. It is at this point that duty-based and consequence-based ethics can be seen to run out of content, yet virtue ethics still has something to say.

Virtue ethics accepts that irresolvable dilemmas are a real prospect, and introduces the possibility of acting well even in the face of irresolvable dilemmas. Virtue ethics is alive to the possibility that there is no single unique right answer, and that different agents may arrive at different conclusions as to what is the right thing to do, with the rightness of the act being derived from the reasons, motivations and deep-down character traits of the individual who chooses. These possibilities are one contribution that virtue ethics offers to the ethical problems faced by those who seek to aid in disasters. A second contribution is a consideration of the priority of virtue ethics to duty-based or consequence-based ethics.

Earlier it has been suggested that at times, focus needs to be moved away from the application of principles such as 'do no harm' or 'do good', and turned on the situation of the healthcare professional who must choose, and choose in a constrained, drastically altered world, that is over-burdened with suffering, and where opportunities to do good and to occasion harm abound. In such situations, it can be conceded that the right course of action *may be* to maximise aggregate benefit, or the right course of action *may be* to adhere to the duty to respect patient autonomy, or the right course of action *may be* to prioritise those easy to save over those whose survival is assured only at great cost, or the right course of action *may be* to relieve the suffering of a few at the expense of the suffering of the many. However, in all such situations a choice has to be made as to what outcome to

realise or what duty to adhere to. When faced with such choices, it can be suggested that consideration of the healthcare professionals as a virtuous chooser is prior to the choices to be made. When faced with difficult choices between irreconcilable principles, consideration of the wisdom, courage and integrity of the healthcare professional is prior to whatever choice they make. Through the exercise of their practical wisdom, drawing on their courage, and holding fast to their integrity, a healthcare professional *may* recognise that maximising aggregate benefit is the morally right course of action to follow in a particular situation, whilst at another time and place they *may* recognise that fidelity to those one is caring for takes priority over maximisation of aggregate benefit, or they *may* recognise that some lives are too costly to save in disasters, yet in another situation they *may* refuse to accept that age should be used to exclude older people from rescue. Critics may argue that this leads to inconsistency in decision making and action. As a counter one can argue that there is in fact consistency and that that consistency lies in the one who chooses and their stable, deep-down virtues that inform their whole life and conduct. In this way, virtue ethics can be considered not as a competitor to duty-based or consequence-based ethics in disasters, but rather as the foundation for choosing well in the exceptional and nonideal circumstances found in a disaster.

This chapter has taken as its focus virtue ethics and its application to healthcare practice in disasters. Virtue ethics redirects the focus away from questions of what ought, ought not, or may be done and towards the healthcare professional as one who must choose in the exceptional and nonideal circumstances found within disasters. It has been suggested that those in disasters need to exercise practical wisdom in choosing well, to draw on their courage in the face of opposition and real physical danger, and to maintain their integrity as individuals who find themselves in radically altered and otherworldly situations that challenge steadfastly held bottom-line principles. As such, healthcare practice in disasters can be considered a virtuous practice.

It has also been suggested that virtue ethics can also structure how aid is delivered. Aid should be delivered in ways that minimise the opportunities and rewards for vice, but rather, allow those in receipt of aid to exercise and develop the virtues that are expressive of and constitutive of their flourishing. In a similar vein, those who work in disasters should be provided with practice environments that allow for the exercise of practical wisdom, courage and is respectful and strengthens integrity. It is suggested that systems of disaster aid and healthcare practice should be constructed that are virtue permissive. Virtue permissive aid systems should be accommodating to the virtues of disaster victims, those who seek to help in disasters, and those who are at one and the same time both victim and responder. It can be hoped that through virtue permissive aid that those in a disaster can not only survive as humans, but also flourish as individuals.

Conclusion

This thesis began with three general areas of concern; the appeal for guidance that fits the exception circumstances encountered in disasters, the possibility that those who seek to provide aid in disasters may also occasion harm to those they seek to help, and the threats to meaning and understanding that disasters can present to those who find themselves involved. In response to these broad areas of concern a three staged response has been developed.

The first stage was largely descriptive and exploratory seeking to understand what makes some events disastrous, and seeking an understanding of the experience of healthcare professionals who find themselves in a disaster. Disasters have been presented as episodes of exceptional loss. On occasions this loss is a loss of utility leading to large-scale unmet human need. However, some events appear to be disasters because they involve the irretrievable loss of things held to be intrinsically valuable. This latter view of the nature of some disaster losses explains the disastrousness of mass death, an explanation that an understanding of disasters purely as loss of utility struggles to accommodate. It has also been argued that disasters are exceptional events. In part this exceptionality is statistical. However, disasters can also be seen as an exception to peoples' understanding of how the world ought to work. As such, disasters can be difficult to understand even to the point of incomprehensibility. These features can challenge, or render redundant, normal-times values, beliefs, and ways of acting.

The opening largely descriptive stage continued by examining the lived experiences of those who find themselves in disasters. Through this examination we can appreciate how the exceptionality of disasters impacts on healthcare professionals who describe the circumstances encountered in disasters as otherworldly. Those in disasters face non-trivial choices that determine the survival, suffering, rescue, and well-being of others. Further, it has been argued that healthcare professionals in disasters occupy a dual role of both victim of the disaster and an agent for responding to the needs of others. As such, question regarding survival, suffering, rescue, and well-being are also directed towards self and to family and others in psychological and social proximity. For those in disasters, they are often acutely aware of the significance of their choices and the benefits and burdens that may flow from their actions or inactions. It has been argued that disasters, by their nature, prevent an effective response to the large-scale need that is pressing and urgent. As such, those in disasters experience dilemmas of choice between competing but irreconcilable calls on limited resources. However, it has been argued that, in single principled ethical systems, many apparent dilemmas may revert into moral uncertainties, where there is a right ethical principle to follow but it is unclear as to how to realise that principle in the world. By contrast, real moral dilemmas are seen to arise at the interface of plural ethical principles that are irreconcilable. In the face of such moral uncertainties and

dilemmas, it has been suggested that healthcare professionals should be able to call on ethical resources to guide their decision making.

The second stage of the response to the difficulties encountered in disasters has been a consideration of the ethical resources available to those who find themselves in a disaster. It has been suggested that it is not unreasonable for healthcare professionals in disasters to be able to turn to their own professional codes of ethics and conduct to help guide their response to the challenges encountered in disasters. Upon review of a range of such codes three conclusions were reached. Firstly, the majority of codes and their content are silent on the particular problems faced in disasters. A critical stance towards this silence would be to express disappointment that just at the point when healthcare professional need guidance, their professional codes run out of content. However, a more charitable view of codes holds that there should be no expectation that codes written for normal-times practice should be expected to address the statistically exceptional situations that arise in disasters. A second conclusion reached, recognises that some codes do contain principles and guidance that can help those who find themselves in a disaster. Some codes address the professional obligation to render aid in emergencies, and the obligation to breach the duty of confidentiality in favour of avoiding harm to others and protecting the public from harm. Further, some codes give licence to healthcare professionals to look to their own welfare and well-being, important considerations for those in disasters who are simultaneously agents able to render aid and disaster victims. A third conclusion drawn from the review of codes was that many codes impose obligations on healthcare professionals that are highly demanding in the drastically altered situations found within a disaster. Codes require healthcare professionals to prioritise the needs of the individual patient, to offer them the best care possible and to serve that patient's best interests. Such requirements fail to appreciate the difficulties met in disasters where the needs of patients may compete for the same limited resource, and where to serve the best interest of one may deny another victim also in need of the care and treatment they too deserve. Further, the imperative language of 'must' found in many codes is often accompanied by 'at all times'. By claiming certain professional obligations to patients are universally binding, little space is left for the healthcare professional to look to their own welfare and well-being, or the welfare and well-being of their family and others that are significant to them. In response to the silence of some codes, and the demandingness of others, one could claim that codes of professional ethics and conduct simply do not apply and have minimal jurisdiction over healthcare practice in disasters. However, a further claim has been made that healthcare professionals in a disaster can turn to certain universal ethical principles as sources of guidance in the face of the challenges met in disasters. Two such universal principles were identified, 'first, do no harm' and 'do good'.

The principle of 'first, do no harm' has been presented as a stringent negative duty to refrain from acts that harm. This principle has universal application and is expressed as a relatively cost-free

duty that merely requires inaction or nondoing. It has been suggested that, for healthcare professionals in disasters, the apparent ease with which not-harming can be achieved does not fully appreciate all of the ways in which harm may be occasioned. A view of harming that sees actions and inactions that interfere with another person's pursuit and realisation of their legitimate welfare and well-being interests as harm greatly expands the scope of what actions and inactions count as harm. Indeed, it has been suggested that many inactions can be judged to be morally blameworthy omissions through which harm is occasioned.

In disasters, where need outstrips the ability to meet that need, it has been argued that opportunities to occasion harm rise towards a level of ubiquity. That is to say, for healthcare professionals in a disaster, directing care and treatment towards one individual in need necessarily deprives another in need of care and treatment, and that such deprivation of care and treatment is a form of harming. It has also been suggested that, for healthcare delivery, only being able to offer aid to one at the cost of aid to another is a hallmark of disasters. The possibility that occasioning harm is unavoidable, either through action or inaction, is a serious consideration for those who find themselves in a disaster. As such, the usefulness of the principle 'first do no harm' as an ethical resource to guide action in disasters can be seen to be less assured than many would initially think.

In contrast to the negative duty to not harm, 'do good' is presented as a positive duty that is foundational to healthcare practice. Whilst healthcare professionals may have a more or less clear understanding of what is involved in doing good in their normal-times practice, disasters challenge such an understanding. It has been argued that in disasters, 'doing good' is recalibrated from doing good for an individual to doing good for the many. Disaster healthcare is described as a utilitarian parable that champions the maximisation of aggregate benefit. This orthodoxy seeks to maximise certain medical outcomes such as survival, or the minimisation of morbidity or the minimisation of suffering. Under this orthodoxy, there is a reordering of distribution where those most in need do not necessarily receive the level of care and treatment appropriate to their needs. Rather, the disaster orthodoxy prioritises lives that are less costly to save over lives that can only be saved at the outlay of a large proportion of necessarily restricted resources, or prioritises lives that can be saved with greater confidence over lives where ultimate survival is in doubt. In this way, those who are gravely ill, those who may survive but only with a great degree of disability, or those who may survive but not for a long period of time are deprioritised in favour of others who can be treated and saved more assuredly , more rapidly, and with less resource outlay.

Despite the established orthodoxy of maximisation of aggregate benefit in disasters, disquiet with this framework has been raised. Questions have been asked to the primacy given to maximising survival. Within the disaster orthodoxy, survival is presented as an unqualified good, yet such a view

fails to recognise that to save a life may do little more than to condemn the survivor to a life of suffering, or one stripped of those things that give meaning and purpose to life. Additionally, those who argue for the maximisation of survival, fail to give an account of what should even count as survival in terms of days, months, or years. Further questions have been asked as to the soundness of the assumption that the needs of the majority outweigh the needs of the minority. Counter arguments have been presented that question the assumption that numbers always count, and always count in favour of the greater number over the few. Scepticism has also been raised as to whether or not aggregation of benefits and harms is even possible. The possibility has been raised that such aggregation is non-sensical in the face of the incommensurable nature of radically and essentially different benefits and harms presents a significant challenge to those who advocate for a disaster orthodoxy of maximising aggregate benefit.

Throughout the mid-section of this thesis, it has been argued that appealing to professional codes of ethics and conduct, or the universal principles of 'do no harm' and 'do good' as ethical resources to help resolve the difficulties faced in disasters is not problem free. It has been suggested that in the difficult and unprecedented exceptionality of a disaster, consideration should be relocated away from questions as to what to do and towards the question how to choose between competing options that are differently merit worthy. This change of perspective highlights the position of the healthcare professional in a disaster as one who must choose and choose in a nonideal world that is characterised by dilemmas and uncertainty. The final section of this work has taken as its focus the contribution virtue ethics can make to understand the position of the healthcare professional as one who must choose. Through virtue ethics we can appreciate how it is possible to choose well even in the exceptional circumstances found within disasters. Virtue ethics is amenable to the view that there may be no single unique answer to the question 'What should I do?'. Rather, different chooser exercising practical wisdom that is sensitive to the moral dimensions and what is at stake in a situation, committing to a course of action with courage in the face of opposition or danger, and maintaining integrity may arrive at different answers to this question. By focussing on the healthcare professional as one who must choose between options that are differently merit worthy or even differently abhorrent, it has been suggested that virtue ethics can be seen to be prior to, and not in competition with, duty-based or consequence-based ethical frameworks. That is to say, in certain situations duty-based ethics may trump a consequence-based maximisation ethical framework, or *vice versa*, however it takes a wise, courageous individual acting with integrity to choose between such competing normative frameworks.

Virtue ethics may also inform how disaster healthcare should be structured. It has been suggested that aid systems should be virtue permissive. Aid delivered to victims should allow those victims to act virtuously and give little opportunity and reward for vice. At the same time, healthcare

professionals should be given the space to exercise their practical wisdom to respond to those morally significant but clinically neutral aspects of a situation. Further, healthcare professionals should be provided with opportunities to maintain their integrity as an individual even in the radically reordered circumstances of a disaster, and to hold fast to their bottom-line principles. However, choice also carries costs. Through virtue ethics we can appreciate how choosing a course of action that would be unconscionable in normal times, or being party to an act that transgresses ones deeply held bottom-line principles has the potential to mar and even ruin the life of the healthcare professional.

At the outset several areas of concern were highlighted; the appeal for a form of ethical guidance that fits the exceptional circumstances found within disasters, the possibility that it is impossible to avoid occasioning harm in disasters, and the need to construct a sense of meaning in disasters . In reply to these concerns the following response is proposed.

Disasters are exceptional events that confound established ways of acting and choosing. Disasters, by their nature, are tragic situations that create the real possibility that occasioning harm to those in need is unavoidable. A disaster orthodoxy of maximising aggregate benefit has *prima facie* appeal, however, moving to such an orthodoxy may require healthcare professionals to transgress deeply-held, bottom-line norms and values. Further, such a maximisation orthodoxy is open to serious challenge with respect to its underlying assumptions that numbers always count in favour of the majority, and the assumed commensurability of radically different benefits and harms. For those who find themselves in disasters their position as one who must choose and act in drastic and even tragic circumstances is asserted. Finally, for those who must choose and act in nonideal and even tragic circumstances, choosing and acting well may be all we can ask. If this is the case, as I believe it is, then we need to consider how disaster response aid is structured so as to allow those who respond to choose and act with wisdom, courage, and integrity. For those who emerge from disasters we also need to consider how the exceptional and otherworldly events they have been through can be integrated into a meaningful, if not necessarily happy story.

Post-script: A return to Kabul

This thesis began with a personal reflection on the fate of a young man on a hot June afternoon in Kabul. That afternoon was certainly exceptional, both statistically and in its otherworldliness. The events of that day challenged established values and ways of practicing healthcare. Was the young man harmed? Most certainly, his best interests were not served by leaving him to die. Was such harm justified and outweighed by the greater aggregate benefit gained? That is unclear and possibly unknowable. But the healthcare team acted with courage in the face of great danger, they refused to abandon the injured and put themselves in harm's way for those in need. Despite the tragic events of that day, the healthcare professionals on duty that day acted well. As one of that team I am still 'accompanied' by memories of that, and other days. Have these experiences left me haunted by despair that has marred and somehow ruined by life? Initially I was haunted, but many years have passed since that afternoon in Kabul, those tragedies of my past are part of who I am now. Now as I look back to events that happened over ten years ago, I find I am able to tell a meaningful story about that hot afternoon in Kabul, a meaningful story yes, but a happy story, maybe not.

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