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JBIMA Editorial

Dr Sharif Kaf Al-Ghazal, Editor in Chief

The word “unprecedented” has perhaps become the most overused word in the dictionary over the past 18 months or so, but no other word can so succinctly describe the rapid changes and continuing uncertainty Covid-19 has brought. With the discovery of the new Omicron variant, it seems that the only certainty, is that matters will remain uncertain for some time yet. And whilst the discovery of this new variant is deeply unwelcome news, there can be little doubt that, Alhamdulillah, the world is better prepared now than in March 2020.

There is a huge amount that can be learned from past experiences. Mistakes were made by politicians and policy makers, when we first faced the challenge of the pandemic, but we must remember the words of the Prophet Muhammad PBUH who once said, “A believer is not stung in the same hole twice”. The challenges that we face with the new variant are arguably greater however. The world economy has been suffering over the past 18 months with millions struggling with unemployment and underemployment. Lockdowns have an adverse effect on the mental health of individuals and isolate many. People are fed up with restrictions and understandably, don’t want to give up the semblance of “normality” they have gained since the summer. But the new variant seems to be more infectious than others, and less affected by the vaccines (though it is still weakened by them).

This all means that we simply must be ready for a possible another lockdown and further restrictions. Lockdowns are unpopular and imperfect solutions but their effectiveness in cutting the chain of transmission and infection is ruthlessly effective. Should further restrictions be implemented, it is important for us to follow them, and to ensure our family and friends do so. Staying at home could save lives, and the pandemic has made clear that the fact that so many Muslims are

amongst the BAME community, we tend to be at higher risk from Covid and any complications of the disease. It is also worth bearing in mind that as the vaccination rates are thankfully on the rise in the UK, the same cannot be said around the world due to vaccine nationalism. Poorer countries have far lower vaccination rates but ultimately, we are not safe until everyone around the world is safe. Vaccines must be distributed equitably around the world.

We are thankfully in a stronger position than March 2020 due to our better understanding of the disease and the successful vaccination programme. There is irrefutable evidence that the vaccines have protected thousands and we must continue to advise our patients to be inoculated, but there are also worthwhile conversations to be had about mandatory vaccinations for frontline NHS workers. It is not a stance that everyone agrees, even those who are strong proponents of the vaccine, but it is understandable that it is being discussed and we have two interesting pieces on mandatory vaccinations for healthcare workers in this issue of JBIMA.

And whilst Covid overshadows everything, we cannot forget the issue of assisted dying which has been a hot topic over the past few months and shows no signs of abating. As Muslims, we believe in the sanctity of life and how it is only Allah that has the right to take life away, the same way he gives life. We have two articles on this topic, and we hope they’ll open discussion amongst the community. This is particularly relevant after the BMA’s unfortunate stance on the matter where they state they are neutral and allows those who do not subscribe to the Muslim faith to consider our perspective.

All the best, Wassalamo Alaikom

*Dr Sharif Al-Ghazal,
JBIMA, Editor in Chief*

Assisted dying: Islamic Perspective

Hassan Chamsi-Pasha¹, Mohammed Ali Albar²

¹FRCP, FACC, Consultant Cardiologist, GNP Hospital, Jeddah, Saudi Arabia

²MD, FRCP (Lond), Director of Medical Ethics Center, Department of Medical Ethics, International Medical Center, Jeddah, Saudi Arabia

Correspondence: Dr. Hassan Chamsi-Pasha, drhcpasha@hotmail.com

Keywords: Assisted dying, Physician-assisted suicide, Euthanasia, Medical assistance in dying, Medical Ethics, Islam.

Abstract

With Assisted dying is causing the death of a terminal patient to save him/her from further pain and suffering. The Qur'an explicitly declares that taking a human life or one's own life is categorically forbidden. All the Fatwas prohibit assisted dying and consider it a crime punishable both in this world and the hereafter. Withholding a treatment because it is futile is acceptable in Islam but withholding it to hasten the death of the patient, to avoid further suffering, is illegal and forbidden in Islam.

Case History

A 70-year-old man with advanced cancer with severe pain was not responsive to morphine and asked the doctor to kill him and save him from suffering. The doctor refused, claiming that he could not commit illegal homicide. The doctor also refused to give the patient any advice about suicide. Upon the patient's insistence, the doctor agreed to stop hydration and nutrition to enable slow death⁽¹⁾

Types of euthanasia:

Voluntary euthanasia is defined as: "The intentional administration of lethal drugs in order to painlessly terminate the life of a patient suffering from an incurable condition deemed unbearable by the patient, at the patient's request."

Assisted dying is defined as: "intentionally assisting a person, at this person's request, to terminate his or her life."

Non-voluntary euthanasia is defined as: "The intentional administration of lethal drugs to painlessly

terminate the life of a patient suffering from an incurable condition deemed unbearable, not at the patient's request."⁽²⁾ Involuntary euthanasia against the will of the patient is also called mercy killing.

Introduction

Euthanasia, assisted suicide, medical assistance in dying, death with dignity: these and many other different terms are used around the world to capture various types of assistance in dying.⁽³⁾

In palliative care, a hastened death is when a person who has a life limiting illness has the wish, desire, or intentionally seeks to end their life prematurely.⁽⁴⁾

Euthanasia is a Greek word composed of two syllables: eu means good or easy, Thanatos means death. Thus, the meaning becomes good death or easy death, and nowadays proponents like to call it "mercy killing."

Euthanasia is an intentional act 'that is explicitly intended to end another person's life and that includes the

following elements: the subject has an incurable illness; the agent knows about the person's condition; commits the act with the primary intention of ending the life of that person; and the act is undertaken with empathy and compassion and without personal gain. Physician-assisted suicide, on the other hand, intends to provide the patient with adequate knowledge about means and resources, i.e., lethal drugs, and counseling to commit suicide. According to Islamic sources, euthanasia is also defined as 'ending an individual's life out of compassion for that person's suffering' ⁽⁵⁾

Assisted dying is increasingly advocated in public discourse as a humane response to a terminal prognosis and distress on the part of selected patients, and their care providers ⁽⁶⁾

There appears to be momentum internationally to permit some form of assisted dying within legal processes, with the Governments in areas of Australia, Germany, Ireland, Portugal, Spain, and New Zealand being the latest to produce legislation in support of these practices. ⁽⁴⁾

The British Medical Association has recently dropped its opposition to assisted dying in a narrow vote at its annual representative meeting. Doctors and medical students voted for the union to "move to a position of neutrality on assisted dying, including physician-assisted dying". The BMA, which represents 150,000 doctors, has opposed legalizing assisted dying since 2006. Members of the UK's biggest doctors' union voted to adopt a neutral stance on assisted dying, with 49% in favor, 48% opposed and 3% abstaining. ⁽⁷⁾

Currently, euthanasia or physician-assisted suicides are legal in the Netherlands, Belgium, Luxembourg, Colombia, and Canada (Quebec since 2014, nationally as of June 2016). Physician-assisted suicide, excluding euthanasia, is legal in 5 US states and Switzerland. Public support for euthanasia and physician-assisted suicide in the United States has plateaued since the 1990s (range, 47%-69%). In Western Europe, an increasing and strong public support for euthanasia and physician-assisted suicide has been reported; in Central and Eastern Europe, support is decreasing. In the United States, less than 20% of physicians report having received requests for euthanasia or physician-assisted suicide, and 5% or less have complied ^(8,9)

The number of dementia patients requesting euthanasia in the Netherlands has increased recently. ⁽¹⁰⁾ A survey of physicians in Canada showed that physicians who were older, had stronger religious beliefs, were trained in

palliative care, practiced in a teaching hospital, and had not received assisted dying requests in the year preceding the survey held less favorable attitudes towards medical aid/assistance in dying (MAID) for non-competent patients with dementia. ⁽¹¹⁾

However, there is strong opposition to euthanasia in most states of America and most European countries. McEvoy raised the question "Should doctors allow themselves to become authorized agents of society in ending life? To allow some physicians to perform euthanasia would damage the integrity of the profession. Even the authorized experts in the US penal system are not very good at administering the lethal dose. We should not accede to becoming the bedside analogue of this practice ⁽⁶⁾ Bauer argues that Euthanasia cannot be restricted to exceptional cases, based on the idea that the patient's autonomy is to be valued more highly than their actual illness. If autonomy is of absolute value, it could not be limited to the most serious cases of illness. ⁽¹²⁾

Islam and Euthanasia

Life is given by God and cannot be taken away except by Him or with His permission. Taking away life should be the domain of the One who gives life. The Qur'an emphasizes that "it is the sole prerogative of Allah to bestow life and to cause death." ⁽¹³⁾

Preservation of life is one of the five basic purposes of the sacred law. Human beings are considered to be responsible stewards of their bodies, which are viewed as gifts from God.

The sanctity of human life is affirmed in the Qur'an. One cannot take the life of another: "Do not take life which God has made sacred except in the course of Justice" ⁽¹⁴⁾.

The Holy Qur'an says: "...One who has killed a person except in lieu of murder or mischief on earth; it would be as he slew the whole mankind and whoever saves the life of a human being, it is as if he has saved the life of all mankind ..." ⁽¹⁵⁾

One also cannot take one's own life: "Do not kill yourselves, for verily God has been to you most merciful." ⁽¹⁶⁾ God says in the Qur'an: "It is He who created death and life, that He may try which of you is best indeed ..." ⁽¹⁷⁾. He also says: "... Nor can they control death nor life nor resurrection." ⁽¹⁸⁾.

Thus, the person who intentionally ends his life will be punished on judgment day because of his disobedience to

Allah, and for denying His mercy. The Sunnah and teaching of Prophet Muhammad (PBUH) describes one such instance. He (PBUH) said in a Hadith:

“Whoever kills himself with an iron instrument will be carrying it forever in hell. Whoever takes poison and kills himself will forever keep sipping that poison in hell. Whoever jumps off a mountain and kills himself will forever keep falling down in the depths of hell”⁽¹⁹⁾.

According to *Sahih Muslim*, for example, in the battle of *Hunain*, a courageous Muslim warrior was fatally wounded and killed himself because of unbearable pain due to his wound. Prophet Muhammed told his companions, when they praised his courage, that he is not fighting for the sake of God, but to be called brave and courageous. When he killed himself, he proved that he is not a good Muslim and that he was fighting for fame!⁽²⁰⁾.

Lifesaving is a duty and the unjustifiable taking of life is considered a grave sin. The strong opposition to suicide in the hadith literature formed a strong opinion among Muslims that neither repentance (if suicide attempt failed) nor the suffering of the person can remove the sin of suicide or mercy killing even if these acts are committed with a purpose to relieve suffering and pain. Some interpretations of the Islamic sources even give advantage to murderers as opposed to people who commit suicide because the murderers, at least, may have the opportunity to repent for their sin. However, people who commit suicide are ‘labeled’ as losing faith in the afterlife without a chance to repent for their act.⁽²¹⁾

Islamic law clearly prohibits euthanasia in all circumstances. However, the wishes of the patient not to have his dying prolonged artificially in the presence of hopeless prognosis need to be respected and abided by. Such wishes may be declared in the accepted “standing Do Not Resuscitate (DNR) orders” in certain hopeless medical conditions^(22,23).

The physician therefore has no right to terminate any human life under his care. This also applies to the unborn baby since clear evidence indicates that human life starts at the time of ensoulment.

These sources from the Qur’an and hadith illustrate the sanctity of human life, prohibition of killing a human being with no justification, and prohibition of killing oneself. Thus, killing a person to ease his suffering even though it is at the request of the person will be inconsistent with Islamic law, regardless of the different names given to the procedure, such as, active voluntary euthanasia, assisted suicide, or mercy killing^(24,25). A

person in such situation is expected to persevere patiently with the available medical treatment as the reward for such patience in the Hereafter is tremendous as promised in Qur’an, in which Allah (swt) stated: “And those who patiently persevere will timely receive a reward without measure”⁽²⁶⁾. However, pain-relief or withholding or withdrawing of life-support, in which there is an intention of allowing a person to die when there is no doubt that their disease is causing untreatable suffering, are permissible as long as the structures of consultation between all the parties concerned about the wellbeing of the patient are in place.⁽¹³⁾

The Islamic Jurisprudence Council held in Jeddah in May 1992 declared a strong rejection against so-called euthanasia under all circumstances. And those terminally ill patients should receive the appropriate palliative medication, utilizing all measures provided by God in this universe, and one should not despair of Allah’s mercy, and that doctor should do their best to support their patients morally and physically, irrespective of whether these measures are curative or not^(27,28, 29)

The Islamic Medical Association of North America (IMANA) is absolutely opposed to euthanasia and assisted suicide in terminally ill patients by healthcare providers or patients’ relatives⁽³⁰⁾

A famous fatwa (religious ruling) by the European Council for Fatwa and Research (2008) states: The patient whatever his illness and however sick he (or she) is shall not be killed because of desperation and loss of hope in recovery or to prevent the transfer of the patient’s disease to others, and whoever commits the act of killing will be a deliberate killer.⁽³¹⁾

Religion and moral values affect the attitudes of health caregivers toward MAID. Muslims believe in divine predestination and therefore assume that any suffering has a purpose. As Sachedina outlined, either they believe their suffering atones for their past sins or it will bring reward after the divine test. Many Muslims also refer to the life of the Prophet Muhammad who compared suffering and pain of the believer to a tree in the fall where God absolves a sin with every leaf that falls off the tree.⁽³¹⁾

Killing is a crime whatever its name (mercy killing) and is not allowed in Islam and by the law. The perpetrator will be punished; the type of punishment may be reduced from capital punishment to imprisonment, as the perpetrator did it upon demand by the person himself. Even if the law exonerates him from retribution, he is

morally wrong and will be judged by God on the final Day of Judgment. The laws in Islamic and Arab Countries criminalize euthanasia and the physician participating in it is punished. The consent of the deceased or the action on his repeated plea to end his life reduces the punishment from capital punishment to imprisonment and abrogation of his medical practice license⁽²⁹⁾.

The Saudi regulation of medical profession No 21 clearly criminalizes whoever kills or assists to kill a patient in response to the patient's request to kill him. Similarly, the Syrian penal code No 552, criminalizes what is called mercy killing or assisting the patient to kill himself.⁽³²⁾ Islamic Jurisprudence exonerates the (person who kills himself) if he was insane or suffered a serious psychiatric disease. However, the physician who kills a patient upon his demand, will not face *Qisas* (capital punishment) in *Shafi Mazhab* (Minhaj *Attalibeen* by Imam *Nawawi*). The physician may not face any punishment, the maximum being to pay the *diyyah* (blood fine).

In the *Hanafi* and the *Hanbali* mazhabs (schools), the physician will be ordered to pay *diyyah*. It is only the *Maliki* scholars and some of the *Hanafi's Ulema*, who judge that the killer in cases of euthanasia, even by the request of the competent adult patient should face *Qisas* (capital punishment). The killer will face the wrath of Allah on the Day of Judgement, for which his abode will be Hell fire⁽³²⁾.

Conclusions

Assisted dying or euthanasia is not allowed even if the patient insistently requests it and his family agree to it. No one is authorized to deliberately end life, whether one's own or that of another human being. Saving life is encouraged, and reducing suffering with analgesia is however acceptable, even if, in the process, death is hastened. This rule is based on the central teaching that "actions are to be judged by their intentions". Withdrawal of food and drink to hasten death is not allowed and is considered murder.

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Maravia, U. (2021). MAiD or AiD? Seeking ‘Medical assistance in dying’ or ‘Allah’s (assistance) in dying’?

Usman Maravia

ESRC Centre for Corpus Approaches to Social Science (CASS), Bailrigg House, Lancaster University, National Director of BIMA Ethics team

Correspondence: u.maravia@lancaster.ac.uk

Keywords: *Autonomy, dignity, Abrahamic faiths, Islam, Life and death, MAiD, Shariah law, spirituality*

Abstract

Currently, the polemic discussion in the UK is MAiD or Medical Assistance in Dying. The stance appears to be evenly split between legalizing MAiD and keeping it illegal. The reality that on average, every eight days a Briton travels abroad to seek MAiD perhaps indicates a need to legalise it in the UK. The discussion, however, is not simply a matter of one’s right to die but that of another’s right to actively take part in ending the life of an individual upon request. In this article, I discuss from an Islamic perspective and in light of Abrahamic faiths, why life is valuable not only when one enjoys physical health but perhaps even more valuable as long as the patient has the potential to experience spiritual joy. Lack of autonomy and what may seem like an undignified life may be overcome through an environment of accepting the fact that part of life is poor health and dependence. I also explore cases of wishing for death in the biblical account of Job and in the advice that Prophet Muhammad (peace be upon him) gave to his uncle Abbas when the latter wished for death. Additionally, I look at the importance of justice, preservation of life, and compassion in light of the maqasid al-Shariah, meaning the objectives of Islam. This article argues that MAiD, although a personal choice, is not supported by Muslim scholars in light of Islamic jurisprudence which positions only for death following a natural trajectory of physical decline. Moreover, MAiD involves physicians evaluating the quality of a patient’s life and whether it should end.

1. Background

The UK is seeing a shift in professional medical opinion to legalise Medical Assistance in Dying (MAiD) ^[1]. MAiD is also referred to in other studies by different terms including but not limited to: aid-in-dying, assisted suicide, euthanasia, medical assistance in dying, physician-assisted death, physician-assisted dying, and physician-assisted suicide. The RCP define MAiD as ‘The supply by a doctor of a lethal dose of drugs to a patient who is terminally ill, who meets certain criteria and who requests those drugs in order that they might be used by the person concerned to end his or her life’ ^[2].

The arguments in favour of MAiD have a common assumption that ‘the desire to end life in the presence of an eligible medical condition is a medical problem requiring a medical solution’ ^[3]. Accordingly, on average, every eight days, one British person travels to Dignitas (Zurich, Switzerland) to seek MAiD, where a lethal dose of barbiturates are prescribed by physicians with the explicit intention to empower a person to end their own life ^[4]. According to Statista,

In 2019, 42 British residents went to Dignitas in Switzerland for an accompanied suicide. The number of Britons travelling to Switzerland for assisted dying has

generally increased since 2002, with the highest number of assisted suicides from Britain occurring in 2016 with 47^[5].

According to the 2019 Oregon Health Authority annual report, the main reasons for patients receiving MAiD were, 'loss of autonomy' (90.4%), 'decreasing ability to participate in activities that made life enjoyable' (86.7%), 'loss of dignity' (72.3%), and 'being a burden on family, friends/caregivers' (59.0%)—whereas only a third reported 'inadequate pain control—or concern about it'^[6]. These reasons are also supported by other studies on MAiD^{[7][8][9]}. The main reason for patients wanting to go to Switzerland is because in the UK, according to Section 2 of the Suicide Act 1961, medically assisting another person to die is a criminal offence punishable by imprisonment for up to 14 years^[10].

Not all Britons can afford to travel to Switzerland to seek MAiD due to the costs being prohibitively expensive^[11]. Some of those who were granted approval, died whilst waiting for travel – which may have been perceived as an undignified death to their loved ones. The idea that these individuals could have died without having to endure suffering has evoked much compassion in recent years. In 2020, 61% of the general British population as well as 67% of British health care professionals expressed their belief that MAiD should be legalised^[12]. The Royal College of Nursing adopted a neutral stance on the issue in 2009^[13], followed by the same stance from 49% of members of the British Medical Association^[14]. A change in law may be acceptable to a large proportion of the UK population given the fact that MAiD is legal in Switzerland, Netherlands, Spain, Belgium, Luxembourg, Canada, Colombia, Australia and New Zealand, as well as in several states in the US.

The option to terminate one's life or to seek help from a physician to end one's life seems to be a possibility in the UK in the near future. Physicians will also have the choice to pursue this route and offer lethal methods to end the life of patients in what they would consider 'compassion'. A patient's attitude toward illness as 'endless suffering' is a matter of perspective; others may view it as part of 'a spiritual journey'. The reasons for not legalising MAiD, as well as counter-reasons to legalise, have been argued from various perspectives. The key arguments against MAiD include preservation of life and the prohibition of killing that is 'present in almost all civilised societies due to the immeasurable worth of every human life'^[15]; a form of 'demedicalisation'^[3]; creating a wedge in the law that could lead to exploitation and increase in deaths by

widening the criteria for euthanasia over time^[16]; putting pressure on patients to seek MAiD – because they may be viewed as a burden by family members due to illness, disability or care needs^[17]; and patients themselves feeling that they are a burden on their family^[6]. From an Islamic perspective, human life is sacred and cannot be ended unless exceptional circumstances require it such as self-defence in warfare^[18].

Whilst the Shariah recognises the freedom of an individual to choose to continue living or to end one's own life, it also provides a framework that has led Muslim jurists from different Islamic sects to conclude that MAiD is not permitted within Islam^{[19][20][21][22]}. Furthermore, the Islamic Jurisprudence Council held in Jeddah in May 1992^{[23][24]}, The Islamic Medical Association of North America (IMANA)^[25], and the European Council for Fatwa and Research (ECFR)^[26] to name a few, have all positioned against MAiD. The British Islamic Medical Association (BIMA) has also opposed the legalisation of assisted suicide^[27], highlighting the impact of MAiD for marginalised communities in the UK, who may already be wary healthcare service interventions. In its position statement on the issue, BIMA has asked;

Have we fully understood the ripple effects of legalised assisted suicide for health outcomes across the broad population, in order to assent to the values around choice and control of death held by those opting for assisted suicide, which in the Canadian experience have been of a well-educated, middle-class background?

Opposition to MAiD, however, comes not only from British Muslim communities. Religious physicians from different faith groups are also less likely to promote controversial medical procedures^{[28][29]}. Additionally, opposition comes from a wider spectrum of people including non-Muslim members of the Medical Royal Colleges and the BMA. Not all members necessarily argue from, or are motivated by, a religious point of view. Human ethics and public safety are also key factors that drive those opposed to MAiD. Moreover, when discussing MAiD in the British context, diversity and equity of the Muslim population also require attention in modern multicultural Britain to better understand health inequities^[30].

This article is aimed not only to inform Muslims who choose to adhere to the principles of Shariah law but also to inform non-Muslim health care professionals (HCPs) who work with Muslim patients and other Muslim HCPs of the Shariah law perspective on MAiD. This article is

intended to inform the reader of the way Shariah law looks at the value of life and by contrast, encourages people of all faiths to revisit the value of life from different faith perspectives. Ultimately, this article argues that MAiD is a personal choice but one that does not seem to find support in Shariah law. This is also evident from van den Branden and Broeckaert's (2011) study in which they analysed English Sunni e-fatwas on non-voluntary euthanasia and assisted suicide and found that the majority of the authors 'explicitly speak out against every form of active termination of life—voluntary euthanasia, assisted suicide, non-voluntary euthanasia'^[31].

Nevertheless, Shariah law does acknowledge the freedom to seek death (discussed further in section 4 below). Although MAiD offers one way to end pain and suffering, Denys argues that it arguably 'exceeds medical decision making and is primarily based on ethical and philosophical grounds'^[32]. Bearing this mind, would MAiD be extending medical authority rather than enhancing patient autonomy?^[33] HCPs enter their field to save lives and improve the 'quality of life' but with MAiD, would they be entering the realm of death – by ending life and improving the quality of dying? Thomas highlights that 'giving people access to the means to end their life is not, in itself, a medical procedure'. Irrespective of whether one believes that life ends with the death of the physical body, or whether death ultimately gives meaning to life, choosing MAiD is not a light choice given its terminal effect on the patient. The psychological impact on surviving family members, wider society, and most importantly, on the physician who assists patients in dying also needs to be considered.

I will now explore two important issues related to MAiD from a Shariah perspective. Firstly, 'Why should a person continue to suffer endlessly?' This also requires exploring autonomy, refusing treatment, and wishing for death. Secondly, 'Why might Muslim jurists discourage 'compassionate' physicians from assisting in dying?'

2. Continuous and endless suffering

'Suffering' and 'endlessly' are subjective descriptions of the way a patient or their family view an illness. The Qur'an describes 'patient ones' as those who 'When *museeba* strikes them, they say 'We belong to Allah, and to Him, is our return'^[33]. This verse calls the reader to view seemingly negative aspects of life with a positive mindset. *Museeba* is from the same root that means *sawab* meaning correct. The antonym for this noun would be *mukhti'a* meaning erroneous. *Museeba* in this

context then means that whatever transpires is what was meant to be, irrespective of whether what happened was good or bad, just or unjust. To overcome the fear and anxiety due to feeling helpless in such circumstances, the Qur'an reminds its audience that ultimately, human beings are all in the care of an All-powerful being and no problem is actually 'endless'. Rather, it is the physical and material life that ends but the spiritual life continues.

One such seemingly 'suffering' patient that can be found in the Bible and the Qur'an is the Prophet Job (Ayyub, in the Qur'an). The Bible provides a detailed account of Job's mental turmoil after suffering from boils and sores over his whole body due to what different authors have argued was leprosy, pox, scabies, eczema, erythema, or elephantiasis^[34] - a disease that appeared at the time to have been incurable. Throughout the biblical account is the metaphor of life as a journey^[35]. Also central to the story is the meaningful spiritual relationship a human being can experience despite suffering from poor health^[36]. Interestingly, the theme of 'return' in the Qur'an is echoed in the Book of Job, where Job says, 'Naked I came from my mother's womb, and naked shall I return'^[37].

Job is seen to have lost the ability to perform enjoyable and meaningful activities. He also reaches a stage when he wishes that he was never born, 'May the day of my birth perish'^[38] and saying, 'I would prefer strangling and death over my life in this body'^[39]. At one point he shares a reasonable concern, 'Even if I speak, my pain is not relieved, and if I hold back, how will it go away?'^[40]. Eventually, Job realises that there will be no change to his condition except by death, 'My days have passed; my plans are broken off - even the desires of my heart'^[41]. The most emotional moment is perhaps when Job says, 'Where then is my hope? Who can see any hope for me?'^[42]. In all of these moments, Job's innermost thoughts and emotions could have led him to contemplate suicide or seek assistance in dying given that he was clearly in a very distressing situation. However, what appears to be the source of strength in Job is spirituality and faith, 'I will maintain my integrity until I die. I will cling to my righteousness and never let go. As long as I live, my conscience will not accuse me'^[43]. The righteousness that Job spoke of could be understood from his words, 'Agree with God, and be at peace, thereby good will come to you. Receive instruction from his mouth and lay up his words in your heart'^[44].

The point to note from the above passages is not that it is simply a religious text. The narrative provides a detailed biographical account of someone who had reason to lose

hope and wish for death. However, Job does not see the value of life solely on the merit of bodily integrity but spiritual health. Shariah law, likewise, encourages patients to value spirituality over physical health and acknowledges the fact that if both are lost then one is likely to lose all hope and seek death. Bearing in mind that each individual has their own pain threshold, this biblical account may inspire and empower one to increase their pain tolerance. Promoting the spiritual aspect of life may then be equally, if not more important than restoring physical health in patients^[5]. The notion of holistic care is longstanding in the Christian tradition; in the Middle Ages, Church institutions would continue to care for patients' spiritual health when nothing else could be offered for improving physical or mental wellbeing^[45].

Loss of autonomy

Among the main reasons for patients seeking MAiD is loss of autonomy^[46]. Al-Bar and Chamsi-Pasha define 'personal autonomy' as 'self-rule free from being controlled by others and from inadequate understanding that prevent meaningful choice'^[47]. The secular liberal notion of autonomy, however, differs from the Islamic paradigm. whereas Western ethics is epistemologically based on philosophical science, reason, and experience, autonomy according to Islamic ethics is rooted in religious texts^[48]. In this vein, Van Bommel says:

For a Muslim patient, absolute autonomy is very rare, there will be a feeling of responsibility toward God, and he or she lives in social coherence, in which influences of the relatives play their roles". Consequently, personal choices are only accepted if they are the "right" ones^[49].

In relation to MAiD, autonomy is discussed in conjunction with quality of life. The use of language to describe life plays an important role in how life is valued. To implicitly position 'life' and 'suffering' as opposites, as is often posited by advocates of MAiD, may lead to viewing suffering as a separate experiential entity that is not part of the whole that is life. Does hospitalisation or being bed-ridden transition a person into a stage between life and death or is it still a part of life? Likewise, the moment one loses autonomy or dignity, does that mean that the value of life has ended? There is scope within Shariah law to withdraw life-support from a patient who is, for instance, brain dead; not doing so would still allow the body to remain active and functioning although there is no life. However, in MAiD, the mind is still functioning and there is life, but the individual has lost autonomy over the body.

Returning to Job's thoughts, 'Naked I came from my mother's womb, and naked shall I return' there is an interesting parallel here with the Qur'an, which reads, 'A person surely does transgress when he believes he is independent'^[50]; meaning that an individual who believes himself to be independent in decision-making without fully understanding how their decisions could affect one's self or others might make disastrous choices that would transgress the boundaries of the Shariah. Job's thoughts show that lack of autonomy is not necessarily something negative. At birth, the baby arrives in a state of complete vulnerability; naked and needing assistance to be dressed, to move, and to be fed. A stage in life is then reached wherein seemingly there is independence, and yet we still rely on relationships with others and access to resources. Towards the end of one's life, once again, a person relies on these meaningful relationships to help them fulfil their needs and to be dressed, moved, and to be fed. Jesus prepared his disciple Peter for old age with the following advice, 'When you were younger you dressed yourself and went where you wanted; but when you are old you will stretch out your hands, and someone else will dress you and lead you to where you do not want to go'^[51].

The Qur'an reminds humanity not to get complacent during this middle stage by highlighting the difficult truth – that no one is ever really truly autonomous or independent. Van der Geest and Satalkar, in their research on autonomous decision-making in the face of death, concluded that 'people lose much of their autonomy when they grow old and fragile, and will be increasingly inclined or forced to leave decisions to others'^[52]. Given the fact that human beings are born dependant and are likely to die in a state of dependence, the middle stage is more a luxury than a standard by which to determine the value of life and yet, as Denys points out; 'Being in control has become the ultimate moral virtue of Western citizens. We desire full control not only of our life but of our death as well'^[32]. The baby-boomer generation which experienced life through the lens of individualism may expect greater freedom of choice over death^[53] which creates a challenging tension with the observation that autonomy, as conceptualised and upheld in the case of MAiD, appears largely an illusion^[54].

Another interesting parallel is that the beginnings of the Qur'an refer to human beings as originating from *alaq* which refers to the earliest embryonic form when it clings to the uterine wall. The final chapter of the Qur'an is believed to be *Nasr* which focuses on receiving 'help'. Thus, the beginning and end of the Qur'an parallel the

dependency of human beings. Moreover, Prophet Muhammad (peace be upon him) also advised Muslims to recite *Surah Ya-sin* daily; this chapter includes the reminder, 'And to whomever We grant a long life, we reverse them in development' ^[55]. Likewise, another passage from the Qur'an that focuses on lack of autonomy in old age reads, 'Allah is the One who has created you in a state of weakness; then He granted you strength and then, later on, He gives you infirmity and grey hairs in place of strength' ^[56].

The Qur'an focuses on the reality of old age and need, and it also emphasises the importance of taking care of those who reach this stage. According to the Qur'an, in the same way that a parent is accountable to take care of their child, accordingly, the Qur'an instructs that parents should be honoured by the child(ren) when the former eventually rely on the latter. The Qur'an captures caring for parents in the following words, 'Whether one or both of them reach old age *while they are with you*, say not to them 'uff,' and do not repel them but speak to them respectfully' ^[57]. The verse points out two important aspects, a) 'while they are with you' promotes a norm that one is expected to keep their parents close to them, this can include both emotional and physical closeness, and b) when the parents become dependent as they begin to lose autonomy, their day-to-day wishes are to be fulfilled by the children, just as the parents took care of theirs in childhood. The verse also encourages the children to avoid exclamations of annoyance such as *uff* in Arabic, the equivalent in English being exclamations such as 'what now?', 'oh not again', or tutting. Likewise, non-verbal utterances like eye-rolling that express annoyance are discouraged.

If the children do not support the parents, then the wider family is called upon to honour the one in need. If the family also is unable to support the individual, then the community is called to put measures in place to provide care for the needy. This stage requires managing community funds and revenues to be budgeted to provide quality care for the ill and needy dependants. As Hartling argues, 'A patient overwhelmed by suffering may be more in need of compassion, care, and love than of a kind offer to help end his or her life' ^[58]. Investing in developing sophisticated assistive technology like Intel's speech-generating device for Stephen Hawking could be life-changing and enable patients to maximize potential for communicating with and being cared by their loved ones and maintain an ongoing role within wider society ^[58].

If a person, however, is incapable of providing consent due to illness, is that person able to enjoy a spiritual

connection? If not, should a Muslim have an advanced directive to seek medical-assisted death before losing all ability to consent? From a Shariah viewpoint, there are two points to note a) a person who is incapable of making rational decisions is recognised as being *marfu' al-qalam* meaning one for whom the pen is lifted i.e., unaccountable by Shariah law. Secondly, in terms of honour and dignity, Prophet Muhammad taught that a person continues to gain the same reward in sickness of the good they did during sound health ^[59]. This aspect is strongly advised to be presented to Muslim patients when discussing advanced directives – would they wish to forfeit such rewards according to the teachings of their faith?

3. Refusing life-sustaining interventions vs undertaking life-ending interventions

One may argue that because Shariah law does not oblige a patient to take medication and allow death to take its course, does this mean it permits a form of suicide? One significant difference between refusing medication and MAiD is that there is no third-party assisting in dying. Shariah law allows the matter to be resolved between the patient and the Divine without a third party getting involved to actively end life. A process, which although appears to be compassionate, is not the third party's responsibility, nor would the third party be held accountable, according to Shariah law, for not providing such lethal drugs.

Secondly, if a patient refuses burdensome medical treatment, this is not the same as causing the death of a patient. Burdensome medical interventions could include medication that would cause unpleasant side effects that are disproportionate to the possible benefits. Another example of burdensome includes experimental treatment. Additional questions that need to be explored could be – what percentage of patients who refuse medical treatment knowing it could lead to death, also avoid MAiD? What are the reasons or motivations for patients who do value their lives to allow death to occur naturally? Also, although patients may express their thoughts on wanting to die, is this the same as actually undertaking a life-ending action?

Is there a potential danger that family members interpreting such thoughts as serious considerations, might then incentivise the patient to pursue the notion further? Importantly, legislators of MAiD may need to query that despite the strict regulations that are in place

before MAiD can be considered, how possible is it for family members to sow the seeds of MAiD in the minds of patients which ultimately leads to the patients seemingly seek MAiD of their own choice? This leads to the notion that a patient's decision for MAiD is a consequence of 'internalised external pressure' [7]; a 'supreme paradox' as Hirsch calls it, that 'someone is cast out of the land of the living and then thinks that he, personally, wants to die' [60]. In this regard, Ghazal highlights that 'The reality is that true autonomy and 'choice' devoid of external influences and pressures is fragile a philosophical concept at best, and open to harmful manipulation at worst' [30]. Gibson argued that if an elderly person truly had autonomy, they would request others to help them fulfil their daily activities [61]. However, when such help is not available, the individual begins to lack autonomy and therefore, the choice to end one's life becomes a result of a lack of autonomy. These factors question the reality of autonomy and whether or not the individual decision can be detached from the influence of others around the patients [62].

For a detailed account of how complex the decision-making process can be and how easily decisions can be influenced, read van der Geest and Satalkar's case study of Gertrude's mother [63]. Another case study by Borneman et al. explores the benefits and drawbacks of discussing end-of-life matters with patients in light of religion and ethics [64]. Another case that made media headlines was the case of Valentina Maureira, a 14-year-old Chilean girl with cystic fibrosis, begging her government via YouTube videos to allow physicians to assist in her death. She admitted being influenced by the case of Brittany Maynard, a 29-year-old American with terminal brain cancer who died by MAiD a year earlier. However, Valentina decided to persevere with life after being inspired by Maribel Oviedo, aged 22, from Argentina, whose life was saved after receiving a lung transplant [65].

4. Wishing for death

The scriptures are clear when it comes to saving a life, feeding the hungry, providing water to the thirsty, and clothing the naked i.e., there is a moral responsibility or obligation to undertake action to achieve these aims. However, there is no such instruction as to provide a 'compassionate' or 'dignified' death. Assisted death is also not a new issue exclusive to the modern era. The issue of seeking assistance in death is explored in the Bible, where one account describes King Saul asking his attendant to assist him to die, but the latter refused. Later another man was said to have ended Saul's life acting per

Saul's wish. The Prophet David, however, condemned this person guilty of murder [66].

Even in the time of Prophet Muhammad (peace be upon him), there are examples of individuals wishing to die. Several of Muhammad's military comrades were severely injured in battles, being crippled or blinded, resulting in them becoming dependent on others. Muhammad, however, vehemently condemned suicide and under no circumstance promoted a hastened death. However, in line with his exemplar character of compassion, he acknowledged the pain and suffering being experienced and taught that one may ask Allah directly for death if He deemed it better than life.

Muhammad's uncle Abbas [67], reached a stage towards the end of his life where he wanted his suffering – as a result of old age - to end and simply die. Muhammad, however, successfully persuaded his uncle to focus on the still-valuable spiritual dimension of life. Abbas was advised against dying by Muhammad for two reasons a) living allows one to continue to manifest goodness, and b) life still allows one to make amends. Abbas was convinced to see his life through until the natural end, and even outlived Muhammad. Abbas' willpower continues to live until today as an inspiration to Muslims facing end-of-life challenges, as well as for those who may have contemplated suicide as an escape from sadness and grief.

To some degree, we see a similarity in the case of Abbas, who felt that he had lived a 'completed life' and that he wished to live no more. Such narratives can also be found in interview studies conducted wherein patients who sought MAiD felt they too had lived enough [68]. From a Shariah viewpoint, there is no measure by which such claims can be made. According to the Qur'an, even the least act of goodness will be rewarded [69] and that too multiplied at the least, tenfold [70]. By this standard and for the one who has certainty in this belief, every good act is worth the investment. Prophet Muhammad explained that simple acts of kindness could even be a smile or a kind gesture or uttering a kind word; in the 21st century, the assistance of technology provides new avenues to undertake actions of kindness and benefit to others.

The faith aspect in the foregoing discussion is crucial. The Assisted Dying bill proposes that terminally ill patients with full mental capacity who are not expected to live more than six months may be eligible to apply for MAiD. Given the transformational power of spiritual experiences, a question that needs to be asked is, 'Could

spiritual experiences not be anticipated and deemed valuable for another six months?' Moreover, the bill mentions physical and mental capacity. However, there is no mention of spirituality. Dhar et al. define spiritual health as,

A state of being where an individual is able to deal with day-to-day life issues in a manner that leads to the realization of one's full potential, meaning and purpose of life and fulfilment from within. Such a state of being is attainable through self-evolution, self-actualisation and transcendence ^{[71][72]}.

The support for MAiD has also been argued based on a passage from the Sirach 30:17 which reads, 'Death is better than a miserable life, and eternal rest than chronic sickness' ^[73]. However, reading this passage in context clarifies that the text appears to encourage perseverance and faith. Verse 15 reads, 'Health of the soul in holiness of justice, is better than all gold and silver: and a sound body, than immense revenues'. Verse 16 then adds that 'There is no riches above the riches of the health of the body: and there is no pleasure above the joy of the heart'. The point to note here is that if only the physical body is given value, then upon its deterioration, life remains without riches – not that life has no value. But the passage highlights that alongside the body is the health of the soul and the joy of the heart, which is the spiritual aspect of life that truly adds to the value of life. To seek death based solely on physical or mental deterioration implicitly denies the full potential of the human experience. Without faith adding value to life and joy of the heart, life becomes reduced to physical pain at which point it appears that Sirach concludes that in such a case, 'Better is death than a bitter life'. In the words of Jesus too, life has two dimensions, the biological and the spiritual life and whereas 'Flesh gives birth to flesh', 'the Spirit gives birth to spirit' ^[74].

At what point then can one say a deterioration or non-existence of faith accommodate the wish to seek death? This question again is difficult to answer. According to the teachings of Prophet Muhammad, he instructed that one may proceed to seek death by reciting the words, 'O Allah, keep me alive as long as my life is of value, and grant me death, when death is better for me' ^[75]. The prayer does not encourage an individual to devalue their own life nor invite society to do the same based on physical health. Instead, life and death are left in the care of the Divine and not a third party to intervene or expedite death.

So according to Shariah law, what value does one's life

hold when the body is in perpetual deterioration and end-stage illness? Muhammad is reported to have said that 'Allah does not judge a person by their physical appearance or financial status, but by the condition of their spiritual state and actions' ^[76]. Although society may view a person's value or indeed an individual may themselves view their own worth relative to how much they can contribute to society, from a Shariah stance, this may be viewed as a self-degrading approach. If one judges the value of their life based on physical ability and autonomy, then according to Shariah law, they may be judging themselves harsher than the compassionate approach Muhammad described - that Allah values the spiritual condition. The hadith also mentions, however, that Allah looks at 'actions', which may lead one to feel they are less valuable because of their immobility or weakness.

However, as the Qur'an states - the blind, the lame, and the sick are not to be blamed, shamed, or be held accountable or responsible for matters that they are unable to carry out physically. In a teaching by Jesus, and echoed by Prophet Muhammad, an individual is thanked by the King, 'I needed clothes and you clothed me, I was sick, and you looked after me, I was in prison and you came to visit me'. The person surprisingly asks how he could ever have possibly served in such a way, the King replies, 'Whatever you did for one of the least of these brothers of mine, you did for me' ^{[77][78]}. From a Shariah standpoint then, the ones who are severely challenged physically are encouraged to continue focusing on spirituality, whereas those who are healthy and able, are instructed to provide adequate care for the former.

5. Rationale for Muslim jurists to discourage 'caring' physicians from assisting in dying?

Debilitating illnesses may leave patients extremely weak and suffering from issues such as urinary or fecal incontinence- or cognitively incapable of making complex decisions. Late-stage terminal illnesses could result in patients being bedbound and dependent on others for the most basic everyday tasks like eating, washing, and going to the bathroom. Some may view such a condition as undignified and may argue that if an animal was in the same condition, it would be put down out of compassion. From a Shariah stance, human life has greater value than other life forms. So whilst there is an argument for putting down animals out of compassion, the same argument is more complex to be applied to human life. The issue from a Shariah viewpoint is not

only about ‘does one have the right to die?’ but also ‘does another have the right to grant death to an individual upon their request?’

The argument based on notions of compassion appears to be emotionally valid. However, basing laws on emotions and wishes runs a significant risk of failure. An individual may wish for many things – does this mean someone who is caring should feel responsible to provide assistance and help fulfil all such wishes? According to Shariah law, the provision of care cannot be in contradiction to justice. The Qur’an promotes kindness and care towards each other; however, what is care and what is not is left to Muslims to decide - who may also hope that such acts of kindness are in accordance with Allah’s will and worthy of reward.

However, according to the scriptures, the Divine will is not vague when it comes to taking life. There are no instructions that allow taking the life of an innocent human being out of ‘compassion’. According to the *Maqasid al-Shariah*, meaning the objectives of Shariah law, preservation of life is a key objective [79]. In the case of capital punishment, the evidentiary requirements are so stringent that one may even argue that they are impossible to meet [80].

The fact that the Qur’an [81] regards saving a life as great as saving all of humanity- and taking life unjustly as tragic as eradicating all of humanity - is a clear statement that the Divine will, according to scripture, is to preserve life [82] rather than to ‘end it unjustly’ or ‘upon request’. Likewise, in Judaism, ‘human life is so important, that the saving of human life takes precedence over most other commandments’ [64]. This being the case, to argue that ending life out of mercy or compassion – which may be based on plausible arguments – is in direct conflict with the clear prohibition given in the verse: ‘Do not kill yourselves, for verily Allah has been to you most merciful’ [83]. Accordingly, Chamsi-Pasha and Albar argue that:

Killing a person to ease his suffering even though it is at the request of the person will be inconsistent with Islamic law, regardless of the different names given to the procedure, such as, active voluntary euthanasia, assisted suicide, or mercy killing [18].

6. Social impact

Advocates of MAiD argue that the arguments against it are based on hypothetical fears [84]. They further argue that the suffering of the patients is a fact whereas the

arguments against MAiD are mere opinions of others. Seeking medical assistance in dying would end the physical suffering of an individual, however, studies have shown MAiD to cause deeply damaging unintended consequences inter alia, post-traumatic stress disorder (PTSD) and depression of suffering for those involved in MAiD [85]. Effects of MAiD on surviving family members, wider society, and on the physician who assists patients in dying, therefore, also needs to be considered [86].

Impact on family members

The negative impact on family members could include having resolved feelings about the rate at which the decisions were made to end life and finding having to have chosen the time of death ‘unnatural’ [87]. Possibly due to cultural factors, some family members may feel the difficult burden of keeping the process and the cause of death a secret [88].

Impact on physicians

Studies of physicians who offered MAiD have consistently shown detrimental effects [89] including conflict between respect for patient autonomy and wishes, and the call to preserve and value life [90], and feelings of mixed emotions and inner conflict with their role [91]. Moreover, even the physicians who stay clear of MAiD could also be stigmatized [92] and be seen to appear to be opposed to ‘compassion’. There is also a growing concern that ‘neutrality’ is being interpreted as ‘tacit support for change, precipitating legalisation’, to which Finlay counter-argues ‘If you’re neutral about something, it may be that you don’t know about it, or haven’t thought it through, or because it doesn’t apply to you’. Finlay further adds, ‘A majority who look after dying patients are clear that they don’t want to be involved in assisting suicide and carry that responsibility for ending life. The BMA should respect their professionalism’ [93].

Wider society

In a study related to MAiD by Winnington and MacLeod, they found three key themes emerge: 1) that MAiD will become ‘expectation for others to pursue when unwell and potentially facing a life-threatening illness’, 2) that MAiD brings with it a ‘stigma’, and 3) ‘the potential for such legislation to produce a contagion effect’ [92]. MAiD could also result in a change in palliative care possibly leading to expedited discharges due to financial pressures from an already overburdened health care system - as

was the case when hospices were threatened in Quebec and British Colombia^[94].

7. Conclusion

Medically-assisted death is a personal choice that requires legal support. Where MAiD is legal, those who wish to end their lives exercise their right to practise their freedom of choice. From a Shariah perspective, however, patients are encouraged to value their life from a spiritual aspect. The fact that a patient who has lost autonomy may feel undignified, such attitudes could be addressed not only from a medical perspective but especially through spiritual and social ones. Physicians may feel that providing MAiD is compassionate, however, according to Shariah law, such a provision is not justified as it conflicts with its objectives. According to Shariah, one is permitted to supplicate for a divinely-assisted death to help alleviate distress, however, Muslim jurists discourage actively ending one's own life or for another to offer the means to actively end it upon a patient's request.

Part of the process for helping end-of-life patients reach a better-informed decision is to include spiritual care. Muslim patients as well as members of other faiths are strongly advised to consider the spiritual teachings of their faiths before considering MAiD. Faith leaders need to prepare accessible literature in this regard. To claim that society can allow an individual to make a fully informed decision about death is highly questionable given that no one knows what happens once life ends, apart from the fact that life as we know it, ends. In a society where autonomy is highly promoted, a balance is required to withstand the challenges of sickness and poor health. Better health education that helps to prepare for the realities of ageing and sickness may result in patients developing greater resilience and self-worth when faced with difficult life choices.

Furthermore, research is required to gather the views of ethnic minority communities on MAiD, and also how the law could have an impact on the quality of health care that patients from ethnic minority groups may receive. What effects could MAiD have on the level of trust in the doctor-patient relationship especially on patients from marginalised communities? By doctors offering MAiD, are they validating the idea that a patient's life has no worth? Would medical mistrust affect health intervention uptake and outcomes in marginalised communities as was seen during the COVID-19 pandemic and vaccine hesitancy? Another question that needs to be given consideration is – to what extent would legalizing MAiD

inadvertently affect patients to consider ending their lives – when they would have otherwise found value to their lives?

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ISLAMIC THEOLOGICAL PRECEPTS – THE CASE FOR COVID-19

Shaykh Dr Rafāqat Rashid, *Academic Director, Al Balagh Academy*

Correspondence: drorafaqat@albalaghacademy.com

Abstract

Diversity of opinion mainly related to theological and legal interpretations of one's faith, can sometimes lead to major conflicts amongst Muslims about how the COVID-19 pandemic should be handled, from scepticism to extreme measures. These differences and conflicts can cause confusion, panic, distrust, and unjustified aroused emotions. This is not to suggest that there is only one opinion, and everyone must follow it, but to make it clear that our faith requires that our conclusions are thought through, are informed by science, whilst adhering to the Islamic traditional approach.

Islam and Muslims should engage with emerging national and local public health policies to guide us through our conversations around necessary actions such as opening and closing mosques, suspending Friday congregational prayers and other similar decisions.

This article will focus on important theological positions and their interpretations in the context of the COVID-19 pandemic. How Islam views illnesses and disease and how this relates to reliance on God, the role of God's decree, and whether taking up physical means contravenes belief in such decree. These are just some of the important Islamic theological precepts which form the foundation to our response. I will describe how classical Muslim scholars viewed plagues and epidemics, and whether there are any stipulated rulings from them on how we should prevent harm to public interests. I will argue that even from a theological standpoint the COVID-19 pandemic is serious enough for Muslims to take up stringent preventative means to avert harm caused.

Introduction

Spiritual and psychological interventions and approaches are a must in any calamity inflicting Muslim populations. Mental and physical health are considered essential blessings bestowed by Allah (swt) in Islam. To preserve life and health is a major trust and responsibility for all individuals and communities at large. Endemics and pandemics are a big threat to human life and wellbeing. The increasing death rates with consequential, detrimental physical, psychological, and spiritual impact on the wellbeing of society can be profound.

If an intervention or approach is not properly balanced, then there is a risk of further escalation of the problem. Sometimes we can be too focussed on mortality and morbidity figures to the detriment and harm of our spiritual coping mechanisms- individually and as a

community. Muslims accept that preventative means should be taken, coupled with trust in God, and the means are not just limited to the physical and material (*asbāb zahiriyyah*), but also transcend beyond that to the metaphysical and spiritual (*asbāb bāṭiniyyah*). It can be challenging to get this balance right especially when we are preserving our faith and spiritual wellbeing, by frequenting the mosque, and this conflicts with the need to socially distance during lockdown measures to reduce spread. Guidance on getting this balance right requires that we do not entirely rely upon just a secular approach, but we also refer to our Islamic tradition to advise us on important principles related to the degree of measures we should implement in both the physical and metaphysical realms.

There is a need to provide holistic, well informed Islamic advice to Muslim scholars, imāms, Muslim leaders,

health care professionals, the Muslim population, and Islamic organisations.¹ This advice needs to be consistent, easy to follow and authentic in its sources, both from the Islamic tradition and medical and public health perspectives. This article is an effort to try and address complex decision making around the COVID-19 pandemic using our theology as the framework. I will respond to important and pertinent theological questions which are sometimes confused and at the crossroads of our faith and medical science.

It is important for any working approach that deals with reducing harms to society to take into consideration theological concepts or principles that may regulate behaviour or thought in Muslims. How does Islam perceive illnesses and disease, and how does this relate to reliance on God? Other questions include the role of God's decree and whether taking up physical means contravenes belief in such decree. How does Islam describe and perceive plagues and epidemics, and whether there are any stipulated stringent rulings from classical Muslim scholars on preventing harm from them? All these considerations are important determinants, informed by the Islamic tradition, that frame the Muslim response to pandemics.

Islam and Illness

Islam informs us that all illnesses and diseases are tests from God and are the natural course of life. They have their benefits and rewards and should not be viewed as punishment in all cases. It is only through the instruction of Allah (swt) that life is saved and taken. It should therefore not be surprising when tests are real, because there is a purpose. Allah (swt) says, "We shall certainly test you with fear and hunger, and loss of property, lives, and crops. But, give glad tidings to those who are patient." [Q. 2:155]. These tests are not in vain but are rewarded if patience and steadfastness is maintained. The Prophet (saw) said, "Whatever trouble, illness, anxiety, grief, hurt or sorrow afflicts any Muslim, even the prick of a thorn, Allah (swt) removes some of his sins by it."² He further stated, "The plague is a punishment that Allah sends on whom He wishes, yet for those among the afflicted who believe, it is a blessing. None remains patient in a land in which plague has broken out and believes that nothing will befall him except what Allah has ordained but that Allah grants him a reward like that of a martyr."³

Trust in Allah (swt) and Seeking Means to Treatment

Islam requires us to put both our trust in Allah (swt) (*tawakkul*) and utilize the means to protect ourselves

when possible. Allah (swt) says, "Say: Nothing will afflict us except what Allah (swt) has decided for us." [Q. 9:51]. A Muslim accepts that all is from Allah (swt) and recognises that the means to prevent harm are also destined by God. It is for us to utilize these means to overcome hardships. The means do not conflict with trust in God's decree, just like taking medicine does not reduce one's trust in God's plan; rather it is seen as part of the plan. During the lifetime of the Prophet (saw), some people thought that using medicine defies the trust and reliance in Allah (swt) (*tawakkul*). They therefore asked the Prophet, "Messenger of God, should we use medicine?" The Prophet replied, "Yes, you may use medicine. Allah (swt) has not created any disease without also creating its cure, except one: old age."⁴ The Prophet clarified that the use of medicine is permissible and even recommended at times, and that this does not violate the concept of trust in God.

Nature of Contagion

There are many examples in the Islamic tradition that suggest that physical or material means should also be taken to overcome harm when it ensues, and this is not to contravene the decree of God. This universe was created by Allah (swt) to operate according to systems; systems in which cause-and-effect is an observed key factor. Despite the existence of these systems, Allah (swt) remains in full and uncompromised control of all of it. The ordinary course of affairs, that relationship between cause and effect must be maintained, has never replaced the core belief in Allah (swt) as prime cause. Anas, the companion of the Prophet, narrates that a man asked: "O Messenger of God, shall I tie my camel and rely upon God, or leave it untied and rely upon God?" The Messenger of Allah (swt) replied: "Tie your camel and rely upon God."⁵

When the Prophet (saw) said, "There is no contagion (*lā'adwā*)", the purpose was to remind his companions that one should have trust in Allah (swt), and all of this is from God. Allah (swt) remains in full and uncompromised control of spread of disease and contagion is not due to superstitious beliefs because of bad omens and other beliefs which were prominent at the time. It would not be correct to infer from this that a disease does not pass on from one individual to the other or that one should not take precaution as these are the means Allah swt has chosen and they are because of His will. Hence the full ḥadīth states, "There is no *'adwā*, no *ṭiyarah*, no *hāmah*, and no *ṣafar*, and run from the leper like you would from a lion"⁶. In the same sentence the Prophet (saw) is negating prominent superstitions of

ṭiyarah, *hāmah*, and *ṣafar*, which are bad omens, and at the same advising caution by keeping distance from those infected i.e., lepers. The Messenger of Allah (swt) is telling us that there is no contagion, yet at the same time commanding us to run from the leper like you would from a lion. This suggests that disease can spread from one person to another but with the permission of Allah (swt). The Prophet also said, “An ill person should not mix with healthy people.”⁷ and, “Avoid a [contagious] disease the way a person flees from a lion.”⁸ Therefore, taking precaution by taking up means to avoid a bad outcome or the spread of infectious disease is something prescribed in Islam.

There are many other examples witnessed amongst the companions of the Prophet, like that of Umar ibn al-Khattāb. During his caliphate, he went to Syria when the plague of ‘Amawās broke out in 18 A.H. He sought consultation from his advisors on whether to return to Madīnah or continue. One of them said, “You left for the sake of Allah (swt) so this plague should not stop you.” Others advised the opposite and ‘Umar decided to return to Madīnah. Abū‘Ubaydah rebuked him, “Are you fleeing from the decree of God?” ‘Umar responded, “Yes, I am fleeing from the decree of Allah (swt) to the decree of God. If you had camels and they entered a land with two sides, one fertile and the other barren, and you grazed them in the fertile area, wouldn’t you be doing that by the decree of God? And if you let them graze in the barren area, wouldn’t you be doing that also by the decree of God.”⁹ ‘Umar’s response demonstrates how to balance relying on Allah (swt) with taking sufficient precautions.

‘Umar was informed by ‘Abd al-Rahmān ibn ‘Awf that he heard from the Messenger of God: “If you hear that it (the plague) is in a land, do not go there, and if it breaks out in a land where you are, do not leave, fleeing from it.”¹⁰ Also Usāmah ibn Zayd said: The Messenger of Allah (swt) said: “The plague is a calamity (or a punishment) that was sent upon the children of Israel, or upon those who came before you. If you hear of it in some land, do not go there, and if it breaks out in a land where you are, do not leave, fleeing from it.”¹¹ This advice is in line with one of the higher objectives of the Sharī‘ah, which is to preserve life (*hifẓ al-nafs*).

Describing plague (*al-ṭā‘ūn*) and differentiating it from an epidemic (*al-wabā‘*).

There have been many historical accounts of plagues in the Muslim world, and Muslim scholars have observed certain legal rulings that stem from advice sought from

these prophetic traditions. Classical Muslim scholars however, differed regarding the definition of a plague (*al-ṭā‘ūn*), differentiating it from an epidemic (*al-wabā‘*).

There are two main understandings of *al-ṭā‘ūn* (plague). There are those who consider *al-ṭā‘ūn* as any fatal widespread disease, this includes every widespread, transmissible infectious disease that leads to death in significant numbers.¹² Some therefore do not differentiate it from *al-wabā‘* (epidemic)¹³, because *al-wabā‘* (epidemic) is seen by some as a contagious illness that has spread vastly beyond the norm.¹⁴ It is when the epidemic’s spread becomes a fatal killer, that Muslim scholars call it a plague. So, the differentiation exists on basis of spread and severity of deaths of the contagious illness.

The other understanding describes *al-ṭā‘ūn* quite differently to that of *al-wabā‘*, in that *al-ṭā‘ūn* refers to a specific disease with certain characteristic signs and symptoms. Muslim scholars describe it as an infection which results in sores, skin blisters, swollen glands, often behind the ear, armpits and other such areas.¹⁵ Qāḍī‘Ayād (d. 544 AH)¹⁶, Ibn Hajar al-Asqalānī (d. 852 AH)¹⁷ and Ibn Hajar al-Haytami (d. 974 AH)¹⁸ state that the plague, although its literal meaning pertains to the aforementioned disease, can sometimes be attributed to other epidemics in its figurative sense, because it is a common illness that leads to excessive deaths. In this understanding, *al-ṭā‘ūn* is described as a fatal illness related to a specific disease with characteristics, whereas *al-wabā‘* is not.

The Mālikī scholar, Abu al-Walīd al-Bājī (d. 474 AH) claims that the plague is a disease that harms many people... it so happens that it is attributable to one illness.¹⁹ Ibn Hāzīm (d. 456 AH) asserts that it is when the death rate has increased more than the norm (due to an infectious illness).²⁰ Al-Nawawī (d. 676 AH) explains that *al-ṭā‘ūn* (plague) refers to swellings which cause severe pain, and sores which come out and flare, and the area around it is black, green or red-violet brownish in colour with associated heart palpitations and vomiting. He further adds that, as for *al-wabā‘* (epidemic), al-Khalīl (d. 170 AH),²¹ and others, said that it refers to the plague, and that it refers to any widespread disease. He asserts that the correct view, as noted by scholars, is that it is any sickness that affects many people in one part of the land, but not all of it. He adds that it differs from ordinary diseases in that many people are affected and that they are all affected by the same kind of sickness, unlike other common situations, when people suffer from different kinds of sickness. All plagues are epidemics but

not all epidemics are plagues and the epidemic that struck the region of Shām at the time of ‘Umar was the plague of ‘Amwās.²² In a strictly biological sense, the plague is usually understood as an infection caused by the *Yersinia pestis* bacillus, identified in 1894 by Alexandre Yersin.²³ Many Muslim scholars also identified plague to a particular disease condition which resembled the bubonic plague.²⁴

In conclusion, the use of the word *al-ṭā‘ūn* (plague) has been used interchangeably with *al-wabā’* (epidemic) by different people in different contexts because early historical sources were often unable to identify the source of the sickness as being the same and thus proven to be associated to the same cause.²⁵ This is evident from different accounts of definitions of *al-ṭā‘ūn* and *al-wabā’* as espoused by classical Muslim scholars. Hence when the signs were distinguishable like sores which come out and flare, and the area around it is black, green or red-violet brownish in colour, and it was widespread taking lives, it was termed *al-ṭā‘ūn*. When deaths were significantly more than normal and widespread but the signs were not characteristic and there could be multiple causes then it was termed *al-wabā’*.

In other words, epidemics (*al-wabā’*) have usually been ascribed to the spread of disease amongst the population affected where the source was not clear or spread limited and could be due to multiple sources or illnesses. Plagues were attributable to an exceptionally high number of deaths and the source was clear because the symptoms and signs were the same.

It was not always possible in the past to prove that the increasing rates of sickness or death, that had become widespread, were from the same infectious source, unless there was clear and unique characteristic symptoms and signs of the fatal disease, which was common amongst those affected. Plagues like the bubonic plague had their own defining characteristics, and hence there was some certainty that the source was the same, whereas this would not always be the case for many epidemics. Those suffering in an epidemic would normally present with multiple symptoms and signs, the causes of death would be more complex, and it would be difficult to ascertain that the deaths were from the same source and hence it would not be justified to command stringent rulings to contain the spread as there were multiple sources and reasons for the deaths, and so such stringent rulings were not certain to be effective. We now have advanced epidemiological research capabilities and advanced technology to accurately confirm the source of the sickness and so epidemics and pandemics would also be

included within the legal rulings of plagues if similar factors of spread, and fatality are confirmed.

Rulings related to Plagues

Muslim jurists describe rulings related to leaving the country affected by the plague and fleeing from it. It is not permissible for a person to leave the country with the intention of fleeing from a plague, because the Prophet advised that if you hear of it in a land, then do not enter it, and if it inflicts a land where you are, then do not flee from it.

A group of Mālikī jurists interpret this instruction of the Prophet as just guidance (*ta’dīb wairshād*) and hence a recommendation. However, the correct view is that the ruling in the ḥadīth is of prohibition, and this is the view of most scholars, that one must not flee a place of plague. The prophetic traditions indicate that the prohibition applies specifically to the one who leaves with the intention of escaping from its effect. If, however someone was to leave a place of plague for a different reason or purpose, such as trade, study, or work, then the prohibition does not apply to him.²⁶

The Mālikī judge and jurist Ibn ‘Abd al-Bārr (d. 463 AH), claims that this indicates that it is permissible to leave the place of the plague for ordinary travel if it is not with the motive of fleeing from the plague.²⁷

The great Ḥanbalī jurisconsult Ibn Muflīh (d. 763 AH), claims that if the plague breaks out in a land other than where you are, then do not go to it. And if you are in the land of plague, then do not leave it, because of the sound report to that effect. What is meant by entering or leaving it, is doing so to flee from it, otherwise it is not prohibited.²⁸

Scholars differ regarding the *reason* why Muslims are instructed not to leave or enter the country affected by the plague. Some scholars consider the matter a devotional matter. A matter that requires obeying and accepting the command of the Prophet as revelation without question - and not leaving this to reason.²⁹ This explanation is not problematic as all matters which have been instructed by the Prophet are devotional matters. It also does not suggest that the reasons for this command should not be sought, as the context to the ruling is vital to its application.

Others claim the *ratio legis* (*illah*) is the danger of believing that it was the escaping from the plague that spared them, rather than God, or that it was the entry into the affected land that destroyed them and not God. This is to avoid subscribing the cause to other than God, which contravenes the Islamic theological belief that

Allah (swt) is the prime cause. To avoid such beliefs, it was deemed better for them not to be put in a situation that would potentially lead them to this belief. Refraining from acts that have the potential to lead to the belief that Allah (swt) is not the prime cause is a valid opinion, but this does not detract us from the important question about harm considerations to the public, which plays a fundamental role in our Islamic jurisprudence and how we are obligated to remove harm or prevent it.

Others suggested that the reason is for the interest of the remaining people, for fear of spreading infection, or for fear that there is no one left for the dead to prepare them for burial and take care of the sick and deal with their needed affairs- in other words, due to public harm considerations.³⁰ This is a more realistic explanation and resonates with our legal obligations of preventing harm to the society, rather than those which relate solely to theological beliefs.

Islam describes harms that impact essential public interests (*maṣlahah*). The concept of *maṣlahah* (public interest) has been discussed at length by several jurists in the past and increasingly more so today.³¹ The two most prominent scholars known for their writings on the subject are the Shāfi'ī jurist and Ash'arī theologian Abū Ḥāmid al-Ghazālī (d. 505 AH) and the Mālikī jurist Abū Ishāq al-Shātibī (d. 790 AH). Al-Ghazālī was one of the first to provide the original formulation of the concept from its rudimentary form, whilst the latter developed and refined the concept.³²

The institution of *maṣlahah* is derived from the survey and scrutiny of all Islamic teachings and injunctions found and derived from the Qur'ān and prophetic tradition (*aḥadīth*). This institution relates that the Sharī'ah in all its teachings aims at the attainment of good, welfare, advantage, benefits, etc., and the warding off evil, injury, loss, etc., for the public interest.

Obligations of preventing harm do not just relate to obligations not to harm, but also include obligations not to impose *risks* of harm. There are many examples of this in the *fiqh* literature and legal maxims³³ are used which guide on how competing harms should be judged ('Izzī al-Dīn, 1:64-5). One of the five leading maxims in Islamic jurisprudence relates to harm principles, "harm must be eliminated" (*al-ḍararuyuzāl*) or otherwise described as, "there is to be no harm and no reciprocating harm" (*lāḍararwalādirār*), and has subsidiary maxims (Ibn Nujaym, 1999).

The rulings stipulated by classical Muslim scholars regarding escaping and entering a zone of an epidemic

was to prevent harm to the public and was not obligated just based on it being a plague, because it was only when the plague was widespread and fatal that such stringent rulings would be implemented. Classical Muslim jurists have detailed many principles and elaborated on preventative means to avert harms to the public. These harms may lead to fatal outcomes which should be prevented. This requires Muslim scholars to elaborate how the sharī'ah views harm considerations that severely impact public interests during pandemics like covid-19 from both a theological and legal perspective.

Conclusion

Islam informs us that all illnesses and diseases are tests from God and are the natural course of life. They have their benefits and rewards and should not be viewed as punishment in all cases. Islam requires us to put both our trust in Allah (swt) (*tawakkul*) and utilize the means to protect ourselves when possible. There are many examples in the Islamic tradition that suggest that the physical or material means should also be taken to overcome harm when it ensues, and this is not to contravene the decree of God.

Classical Muslim scholars differed regarding the definition of a plague (*al-ṭā'ūn*), differentiating it from an epidemic (*al-wabā'*). It has been shown that the use of the word *al-ṭā'ūn* (plague) has been used interchangeably with *al-wabā'* (epidemic) by different people in different contexts because early historical sources were often unable to identify the source of the sickness as being the same and so were unable to associate to the same cause due to lack of specific somatic characteristics of the disease. We now have advanced epidemiological research capabilities and advanced technology to accurately confirm the source of the sickness and so it can be argued that epidemics and pandemics would also be included within the legal rulings of plagues if these factors of spread and fatality are confirmed to be from the same source and severe.

Islam and Muslims should engage with emerging national and local public health policies, which inform us how conversations about necessary actions such as opening and closing mosques, suspending Friday congregational prayers and other important interventions should be addressed. Now that the theological precepts are clear in that harm to public must be removed using all means permitted in Islam, the next stage would be an ethico-legal framework on how this should be done.

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18. ¹⁸ Ibn Ḥajar al-Haytami, *al-Fatāwa al-Kubra*, 4:67
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22. ²² Al-Nawawī, *Sharḥ Muslim*, 14:204
23. ²³ Guido Alfani and Tommy E. Murphy, “Plague and Lethal Epidemics in the Pre-Industrial World,” *Journal of Economic History* 77 (2017): 314–43.
24. ²⁴ Bubonic plague is one of three types of plague caused by the plague bacterium (*Yersinia pestis*).
- One to seven days after exposure to the bacteria, flu-like symptoms develop. These symptoms include fever, headaches, and vomiting. Swollen and painful lymph nodes occur in the area closest to where the bacteria entered the skin. Occasionally, the swollen lymph nodes, known as "buboes", may break open and are commonly found in the groin, but may occur in the armpits or neck, most often near the site of the initial infection (bite or scratch). Pain may occur in the area before the swelling appears and gangrene of the extremities such as toes, fingers, lips, and tip of the nose. Bubonic plague is mainly spread by infected fleas from small animals. It may also result from exposure to the body fluids from a dead plague-infected animal. The plague was the cause of the Black Death that swept through Asia, Europe, and Africa in the 14th century and killed an estimated 50 million people. The disease was also responsible for the Plague of Justinian, originating in the Eastern Roman Empire in the 6th century CE, as well as the third epidemic, affecting China, Mongolia, and India, originating in the Yunnan Province in 1855. See, Didier R, Nadjet M, Idir B, Renaud P, Michel D, Plague: History and contemporary analysis, *Journal of Infection* (2013) 66, 18-26
25. ²⁵ an epidemic today is defined as “the occurrence in a community or region of cases of an illness . . . clearly in excess of normal expectancy” A pandemic is defined as “an epidemic occurring over a very wide area, crossing international boundaries, and usually affecting a large number of people” Porta M., ed. 2014. *A Dictionary of Epidemiology*. 6th ed. Oxford: Oxford University Press
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31. ³¹ Some recognised figures include Ibn al-Muqaffa (d. 139 AH), Abu Bakr al-Jaṣṣāṣ (d. 370 AH), al-Juwaynī (d. 478 AH), Fakhr al-Dīn al-Rāzī (d. 606 AH), al-Qarāfī (d. 684 AH) and Najm al-Dīn al-Ṭūfī (d. 716 AH)
32. ³² For a good analysis of the historical development of the concept of *maṣlaḥah* see: Opwis, F., *Maṣlaḥa and the Purpose of the Law*, Studies in Islamic Law and Society, Brill, Lieden 2010.
33. ³³ Unless they re-affirm a ruling of the Qur’ān or Sunnah, the legal maxims do not bind the jurist in delivering a judgment, but they do provide an

Ethical Issues Regarding Investigational Drugs for the Treatment and Prevention of COVID-19

Ahmet Özdiñç¹, Özlem Bildik^{2,3}

¹MD, PhD, Istanbul University-Cerrahpasa, Cerrahpasa Faculty of Medicine, Department of History of Medicine and Ethics, Istanbul, Turkey

²Bezmialem Vakif University, Faculty of Medicine, Department of History of Medicine and Ethics, Istanbul, Turkey.

³Istanbul University, Graduate School of Health Sciences, History of Medicine and Ethics, Istanbul, Turkey

Correspondence: ahmet.ozdinc@istanbul.edu.tr

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Abstract

The challenging COVID-19 pandemic has witnessed the searches for treatment for a disease that had never been known before. Therefore, developing a treatment for the pandemic reflexively has gone beyond the usual methods due to limited time and the urge to benefit the patient. In cases where licensed drugs are insufficient, patients with serious and life-threatening diseases can have access to investigational drugs. These investigational drugs are used within programs such as Compassionate Use (CU) and Emergency Use Authorization (EUA) based on certain legal regulations. In terms of clinical and research ethics, it is a must to keep a balance between the necessity for the treatment to be tested for safety and effectiveness and the purpose of benefiting the patient. Such programs that are aimed at treatment are legitimate due to the concessions caused by the urgent need of treatment for a life-threatening disease in the crisis of a pandemic, however, ethical inquiries must be maintained and even increased in such challenging periods especially because of the need for rapid decision-making and information update. The ethical dilemmas that investigational drugs create have become more apparent, especially in this time of pandemic we are facing. The use of drugs within CU and EUA has ethical challenges. In our study, these challenges are discussed on the basis of beneficence, non-maleficence and justice, which are the basic principles of medical ethics. Regarding this basis, pharmaceutical industry, health authorities and physicians have a great responsibility.

Introduction

SARS-CoV-2 is a single-enveloped, single-stranded RNA virus that causes severe respiratory diseases in humans ^[1]. The coronavirus disease (COVID-19) was recorded as a severe pandemic that caused more than 4 million people's death around the world between December 2019 and August 2021. It has been reported that coronaviruses might cause respiratory, gastrointestinal and central nervous system diseases in

humans and animals, might threaten human life and cause economic loss ^[2]. These viruses can also mutate and adapt to new environments and maintain their prevalence and efficacy for a long time^[3].

Other coronaviruses, including SARS-CoV-2, cross the species barrier and infect humans, lead to outbreaks of severe and fatal respiratory diseases. Since the discovery of 229E and OC43, the first coronaviruses effective on

humans, in the late 1960s, the prevailing perception has been that coronavirus infection is largely harmless to humans^[4]. This perception changed dramatically with the outbreak of severe respiratory syndrome coronavirus (SARS-CoV) in southern China in the winter of 2002^[5]. With the pandemic that originated from these viruses in 2002, about 20-30% of individuals with SARS needed intensive care units, and the overall mortality rate was around 15%^[6]. In 2012, the findings detected in a 60-year-old patient in Jeddah, Saudi Arabia were similar to SARS, and it was seen that the isolated virus caused a new pandemic called MERS^[7]. The overall death rate of MERS was around 36 %^[2].

It is claimed that SARS-CoV-2, which affects the whole world today, emerged in the seafood wholesale market in Wuhan, China in 2019[8]. SARS-CoV-2 is the seventh member of the coronavirus family that infects humans and is different from both MERS-CoV and SARS-CoV. While some infections caused by human coronaviruses are mild and associated with the common cold, infections with COVID-19 have been recorded to be fatal, particularly in young children, the elderly, and immunocompromised patients^[9].

The COVID-19 pandemic is a unique period in terms of the intensity of the development of new diagnostic and treatment methods [drugs, vaccines, etc.]. Most of these treatment methods, which are predicted to be clinically beneficial, are investigational drugs. Drug repurposing, the process of identifying new uses of investigational drugs, is considered a very effective strategy for drug development as it requires less time and cost to find a therapeutic agent compared to the de novo drug development process^[10].

While many of these products are undergoing accelerated clinical trials and regulatory review, there is pressure to ensure access as soon as possible to meet urgent patient needs is noted^[11]. In such a backdrop, the drugs used for the diagnosis and treatment of COVID-19, and the production and application processes of protective vaccines have formed the basis of many discussions and are questioned within the framework of clinical research ethics. Our study includes the ethical evaluation of drugs and vaccines used in the research phase and in the COVID-19 pandemic.

Aim and Method:

It is a necessity in terms of clinical and research ethics to provide a balance between providing treatment to patients as soon as possible in emergency situations and

the need for the treatment to be tested in terms of safety and efficacy. The ethical dilemmas that drugs and vaccines that have not yet received approval, whether it is a compassionate use (CU) program or Emergency Use Authorization (EUA), have become more apparent, especially in this pandemic period we are experiencing. In this study, the issues to be discussed in medical ethics -within the framework of the principled ethical approach- by applying the principles of beneficence, nonmaleficence, and justice are as follows: Ethical discussions on the use of investigational drugs with compassionate use or emergency use authorization, the Declaration of Helsinki, which forms the basis of research ethics, and a review of the literature published in PubMed over the past decade.

The Usage of Investigational Drugs in Treatment

Patients with serious and life-threatening diseases can be accessed to investigational drugs outside of clinical trials within certain programs in cases where licensed drugs are insufficient^[12]. These programs are called Compassionate Use (expanded access) and Emergency Use Authorization.

Compassionate Use (CU) Program (Expanded Access)

It is the usage of an investigational drug for diagnostic, imaging or therapeutic purposes rather than collecting information about its safety and/or efficacy. This program is applied in more serious and directly life-threatening diseases or situations where there is no other possibility of treatment. What is meant by directly life-threatening is the possibility of death within a few months if no medical intervention is applied, and serious illness means that it has a significant morbidity-related impact on daily functioning^[13].

In cases where the drug is withdrawn for safety reasons but the benefit outweighs the risks; for a similar but not yet approved (or approved by a foreign country) drug at the time of the drug shortage; Compassionate Use (CU) may also be applied where availability is limited within a risk assessment and mitigation strategy for diagnostic, monitoring or therapeutic purposes^[13].

Under the Food and Drug Administration (FDA)'s current regulations, there are three categories of expanded use: a) Access to an individual patient: Early access for a single patient. b) Access to an average

patient population: Patients who are ineligible for a clinical trial (for example, with exclusion criteria) or who do not have access to a clinical trial (for example, who are geographically remote) are included in this category. c) Therapeutic Access: The investigational drug is allowed to be used for extensive treatment^[13].

Medical countermeasures (MCMs) that are used by health authorities to combat threats of chemical, biological, radiological, nuclear and infectious diseases during public health emergencies to facilitate access to drugs, diagnostic tests or other essential medicinal products when approval and adequate options are not available^[14].

In the US, the BioShield Act of 2004 created the comprehensive Emergency Use Authorization (EUA) program. Emergency Use Approval allows the FDA to apply the emergency use (including diagnostic) of drugs, devices, and medical products that have not been previously approved, registered or licensed^[15].

The first emergency use approval took place in 2005. The U.S. Department of Health and Human Services has issued a statement pursuant to the Federal Food, Drug, and Cosmetic (FDA) Act to enable the emergency use of Adsorbed Anthrax Vaccine (AVA) for the prevention of inhalation anthrax. This decision was taken to reduce the risk of the exposure of US soldiers to anthrax^[16].

Difference between CU and EUA

It is stated that the main difference between CU and EUA is that CU applies to patients who are not eligible to be included in the clinical trial (outside the inclusion criteria)—but in the EU there are no such criteria, the EU is part of medical treatment^[17]. A drug can be used under both CU and EUA. However, the drug is not used as a CU after EUA approval. For instance, remdesivir was used within the CU program before receiving emergency use approval. Before the relevant randomized controlled trials were conducted and the results were published, remdesivir was provided to hospitalized severe COVID-19 patients within the scope of the CU program in the clinic, and the cohort results were published^[18].

Overview of Investigational Drugs and Vaccines Used in the COVID-19 Outbreak Period

During the COVID-19 pandemic, numerous drugs were administered in treatment. In addition, countries have

approved a large number of vaccines during the development phase. In our study, we include a few of these drugs and vaccines as examples. The common features of these drugs and vaccines are that they have been the subject of ethically controversial debates in this pandemic period.

Hydroxychloroquine and Chloroquine (HCQ and CQ)

Chloroquine is an antimalarial agent known for many years^[19]. For the treatment of COVID-19, an emergency use permit was granted by the FDA on March 28, 2020, and was cancelled on June 15, 2020. Based on the new information and other information discussed in the letter is presented, the FDA has concluded that it is no longer reasonable to believe that the oral form of HCQ and CQ can be effective in the treatment of COVID-19 and that it is no longer possible to conclude that the potential benefits outweigh the potential risks of these two drugs. They also reported that it cannot be used for treatment anymore^[20]. A meta-analysis of the effects of HCQ/CQ on survival in COVID-19 from all available published and unpublished RCT evidence (completed or discontinued) found that treatment with HCQ is associated with increased mortality in COVID-19 patients and there is no benefit of chloroquine^[21].

Convalescent Plasma

Convalescent plasma is the liquid portion of blood collected from patients who have recovered from the infection. Antibodies found in convalescent plasma are proteins that can help to fight the infections^[22]. In a statement released by the FDA on April 3, 2020, it was reported that plasma therapy is being investigated for the treatment of COVID-19 because there is no approved treatment for this disease and there is some information showing that it may help some patients' recovery from COVID-19^[23]. Thereupon, in a study conducted on 36 thousand patients between April 4 and July 4, 2020, it was shown that plasma therapy provides a lower mortality rate^[17].

Remdesivir

Remdesivir has been used to treat RNA-based viruses, including the global epidemic *Coronaviridae* family viruses such as EBOV, SARS, and MERS^[24]. In vitro and preclinical in vivo animal models have supported the efficacy of remdesivir against SARS-CoV-2 and related coronaviruses^[25]. Immediately after the COVID-19

outbreak, clinical trials were started at two centres in China on February 5 and 6, 2020 ^{[26][27]}. In the first COVID-19 case reported in the USA on February 20, 2020, Remdesivir was used within CU program, the patient's fever decreased on the 8th day of hospitalization, and the PCR became negative on the 12th day ^[28].

After the National Institute of Allergy and Infectious Diseases (NIAID) announced the preliminary data on April 29, 2020, an EUA was granted by the FDA on May 1, 2020.

Bamlanivimab

Monoclonal antibodies such as bamlanivimab might be associated with worse clinical outcomes when administered to hospitalized patients with COVID-19 requiring high-flow oxygen or mechanical ventilation and are not authorized to be used in patients hospitalized for COVID-19 or requiring oxygen therapy. On November 9, 2020, FDA issued an EUA for bamlanivimab for the treatment of mild to moderate COVID-19 in adults and pediatric patients - Ages 12 years and older weighing at least 40 kg- ^[29]. Then, on April 16, 2021, FDA revoked the authorization for bamlanivimab, as the potential benefits outweighed the potential risks in the light of the data, particularly based on the continued increase of SARS-CoV-2 viral variants resistant to bamlanivimab alone, resulting in an increased risk of treatment failure^[30].

Pfizer-BioNTech COVID - 19 Vaccine

On December 11, 2020, the FDA approved an EUA of an mRNA vaccine, Pfizer-BioNTech, for COVID-19 patients over the age of 16. On May 10, 2021, they stated that it can be applied between the ages of 12-15. On June 25, 2021, the FDA revised patient and company information sheets regarding the increased risks of myocarditis and pericarditis after vaccination ^[31]. Adverse effects that occur in any person after receiving the COVID-19 vaccine are reported to the Vaccine Adverse Effect Reporting System (VAERS). The FDA requires the vaccination company to report administration errors, serious adverse events, cases of multisystem inflammatory syndrome, and cases of COVID-19 resulting in hospitalization or death after administration of the COVID-19 vaccine under emergency use approval ^[32].

AstraZeneca/Oxford COVID-19 Vaccine

AstraZeneca released the first results of its phase III studies on March 5, 2021. It demonstrated statistically significant vaccine (an mRNA vaccine) efficacy of 79% in the prevention of symptomatic COVID-19 and 100% in the prevention of serious illness and hospitalization ^[33]. During phase III trials expected to be completed on February 14, 2023, on March 23, 2021, the United States Data and Safety Monitoring Board (DSMB) expressed concern about the information published by AstraZeneca about the initial data from the COVID-19 vaccine clinical trial. DSMB expressed concern that AstraZeneca included outdated information in this clinical trial, which may provide an incomplete view of efficacy data ^[34]. According to a news report in March 16, 2021, while researchers are investigating cases of blood clots among vaccinated people, several countries have reported that AstraZeneca has discontinued the use of the COVID-19 vaccine as a precaution ^[35]. A day after this news, the World Health Organization (WHO) made a statement and stated that it thought the benefits of the AstraZeneca vaccine outweighed the risks and recommended the vaccines to continue ^[36].

Sinovac CoronaVac COVID - 19 Vaccine

CoronaVac is an inactivated vaccine against COVID-19 that stimulates the body's immune system without the risk of causing disease. In the efficacy demonstrated in the phase III study in Brazil, participants who received 2 doses of the vaccine 14 days apart had an efficacy of 51% against symptomatic SARSCoV-2 infection, 100% against severe COVID-19, and 100% against hospitalization starting 14 days after receiving the second dose ^[37]. This rate was reported to reduce prevention by 84% and hospitalization by 100% in a study conducted in Turkey ^[38]. The vaccine was approved for emergency use in Brazil on January 17, 2021, and in Turkey on January 13, 2021.

Ethical Framework for Investigational Drugs and Vaccines for the Treatment and Prevention of COVID-19

We will try to establish the ethical framework for investigational drugs based on three main principles: Beneficence, non-maleficence and justice.

1. Beneficence

The primary goal of medicine is to benefit the patient. As the basis of the promised benefit to the patient, the effectiveness of the interventions should be demonstrated by clinical studies. During a public health crisis such as a pandemic, in case that information is constantly evolving, the rationale for providing a drug that is still in the research phase to a patient who cannot be treated with current methods is the physician's aim to benefit the patient^[39]. Although the risks of an investigational drug are great because the patient's life is in danger, the expected benefit outweighs the potential risks. Therefore, it is the utility purpose that justifies departing from the usual procedures in clinical trials in CU/EUA programs. According to Declaration of Helsinki, an unproven intervention may be used in the treatment of an individual patient in the judgment of the physician, when there are no proven interventions or where other known interventions are ineffective^[40].

Programs such as CU and EUA, depending on their characteristics, are neither clinical research nor clinical practice. Since the logic of clinical research and clinical practice are different from each other^[41], ethical evaluation of programs such as CU or EUA bring challenges arising from these differences.

Physicians have difficulties deciding which patients to use these drugs due to the fact that the current drugs were obtained EUA during the investigation of the indication for COVID-19 and they started to be used in patients, and the lack of information (causing uncertainty) obtained as a result of the research. For example, it was noted that it is not known how patients respond to remdesivir; - compared to patients with lower acuity - earlier disease status and patients with higher accuracy-late disease status, it is unclear which of them will have a better effect on the use of remdesivir^[42]. This situation has been a target particularly regarding individual use programs such as CU, and since the physician is responsible for the supply of an unapproved drug to the patient, the importance of the qualifications of the physician who will perform the treatment and the patient selection criteria that the physician will use to determine which patient will be given this treatment has been emphasized^[43]. According to the EUA definition, in addition to the difficulty experienced by the physician, the claim that there is no need to have sufficient information about efficacy and safety for approval^[44] increases the uncertainty of the situation.

Concerns about the Endpoint of Clinical Research

The endpoint is defined as the overall outcome that a clinical trial aims to measure. This result can be a disease characteristic, health condition, symptom, or test (laboratory, radiological) results. At the beginning of the development and evaluation of an intervention, endpoints are used to determine the safety and biological activity of an intervention. Then, endpoints help decide whether a drug provides a clinical benefit or not^[45].

A Discussion for Endpoint: An Example of Remdesivir

During the pandemic, there is an aim to get results from clinical trial as soon as possible. The decision on when to end the trial (how to determine the endpoint) is crucial and research ethics requires this decision to be questioned. Because, it is pointed out that a secret and bureaucratic process may be operating in making these decisions, as is often the case in clinical trials^[46]. For instance, how to determine this endpoint has been discussed broadly in the early part of the pandemic, in the remdesivir trial. It was emphasized that if the placebo group were cancelled without obtaining data on mortality, the main purpose of the clinical trial would not have been fulfilled and would limit the possibility of collecting further data on whether the drug would save lives.

According to preliminary data released by NIAID April 29, 2020, remdesivir reduces the median time to recovery (being well enough for hospital discharge or returning to normal activity level) 4 days compared to the placebo^[47]. There was no statistically significant difference in mortality and the determination of the length of the median time to recovery as an endpoint has been an important discussion.

The main objection to the argument that the evidence on length of stay is "better than nothing", even if there is little evidence: the reason for locking down the entire community was not to allow COVID-19 patients to spend a few fewer days in the hospital; It was opposed on the grounds to prevent patients from dying and the right endpoint should be mortality^[46]. The knowledge of whether the drug will save lives is the information that this study initially suggested but did not prove in the end, so the study would not have achieved its original purpose in this sense. According to those who think that determining whether the drug can prevent death can only

be determined by placebo control and therefore it is not appropriate to give remdesivir to the placebo group, with the disclosure of the endpoint, it is no longer possible to conduct a placebo-controlled trial to determine whether the drug has a benefit for mortality.

On the grounds that the basic rationale of conducting clinical trial is to conduct the experiment rigorously in order to provide the most accurate information about the right treatment, it was stated that it would be in the public interest to determine whether remdesivir could reduce mortality, but unfortunately, the opportunity to obtain evidence of mortality was missed^[46]. In addition, it is dangerous at this point (as of the announcement of this endpoint) that it is still not clearly known (an uncertainty) who needs to be treated currently, despite this it is dangerous that it has now reached the status of treatment for everyone; doubts have been expressed as to whether this drug will now become a base drug and serve as a control and potent enough to become the standard of care^[46].

Concerns about Earlier Approval

It is noted that the haste of approvals causes concern in the public and negatively affects confidence in these vaccines (for reasons such as the possibility of political pressure in the vaccine development process). It is emphasized that once public confidence in vaccines is compromised, it will be difficult to recover and distrust of one vaccine can fuel concerns about other vaccines^[48].

At the beginning of the COVID-19 pandemic, the use of HCQ was first licensed and then revoked by FDA with an EUA. It is also emphasized that the licensing of COVID-19 vaccines, which were developed at an unprecedented pace in this process, should be evaluated within the framework of the lessons learned from the HCQ licensing process^[49].

There have been public concerns about the safety and efficacy of vaccines developed through accelerated processes, and circuitously about the reliability of regulatory agencies such as FDA. FDA Chairman Stephen Hahn noted that the FDA may issue an EUA if it is felt that the risks associated with the vaccine are much lower than the risks of not being vaccinated^[49].

Since drugs on clinical trials will never be complete theoretically, it would mean that a drug is used with data rather than a clinical trial.

Concerns about Long-Term Effects of Earlier Approval

Following the release of preliminary data of phase III trials, vaccine manufacturers sought regulatory approval for the emergency use of vaccines. Scientists are concerned that emergency use could jeopardize ongoing clinical trials aimed at conclusively showing how well vaccines work^[50].

When a vaccine is authorized and given emergency approval, there is general encouragement for the placebo group to be vaccinated. But if too many people join to the vaccine group, companies won't have enough data to determine long-term data such as safety, how long vaccine protection lasts, and whether the vaccine prevents infection or just disease.

It is ethically unacceptable to continue research while there are still people in need of treatment. Once a certain level of evidence has been obtained, the obligation to give active treatment to the placebo group arises. It is questioned whether it is ethically justifiable to refuse to vaccinate vulnerable populations against an incurable infectious disease despite the availability of reasonably safe and effective vaccines, particularly due to the lack of phase III trial data^[51].

Adding to the concerns above, Jerome Kim, executive director of the International Vaccine Institute in Seoul, says that early use of vaccines in high-risk groups will most probably save lives. The vaccines have only been tested for a few months, but it is too early to know how long they will be effective, he says^[50].

2. Non-maleficence

Although the most important reason for CU/EUA programs is the purpose of usefulness, drugs that are still in the trial phase – and many drug candidates at this stage cannot provide sufficient effect and may not pass to the next licensing phase- are provided to patients in need. It is noted that the evaluation of CU programs as clinical practice, despite having the characteristics of a clinical trial, creates important inconsistencies due to the fact that data such as serious adverse effects from patients are not evaluated^[52].

In order to decide on CU, it is only allowed in phase II and phase III stages of drug research, as the drug must not be fatal or completely useless^[17]. However, it does not mean that the drug is harmless, because there are

uncertainties during the research process, such as serious side effects that have not yet emerged and unknown dosage levels of the drug.

Safety

Although there is a certain level of safety in the use of a drug in a new indication, which is currently used with the original indication for another disease, this may not be sufficient. Although the current drug has a previously established clinical safety profile, there is a need for a comprehensive safety (such as drug interactions, dosing) evaluation as well as efficacy evaluation specific to COVID-19 treatment. For example, CQ/HCQ has been used for many years in indications such as malaria, so it is known that the safety profile of this drug is at a certain level. However, it is noted that the quality of the evidence in published studies regarding the clinical efficacy of this drug, either alone or in combination with other drugs, is low due to insufficient sample size, clinical results, and lack of randomization^[53].

It is emphasized that a data-based strategy on the off-label use of vaccines, independence of randomized controlled trials, may fail in the long run, and may also raise public doubts about the effectiveness of the vaccine campaign, with the risk of creating false feelings of safety in patients. On the other hand, it is pointed out that in case of infection in vaccinated individuals, with the decrease in voluntary adherence to the vaccine, significant harm may occur in the entire vaccination campaign in terms of public confidence^[54].

The key point of safety concern is that patients at risk of COVID-19 complications are also at the highest risk of drug interactions and drug-related toxicity. As a matter of fact, these are people over the age of 60; persons with comorbidities such as arterial hypertension, diabetes, chronic lung disease, malignancies, and immunosuppressive conditions; and those taking drugs with potential for drug interactions or additive toxicity at the same time, and it has been emphasized that extreme caution should be exercised in the use of CQ/HCQ in these vulnerable populations^[53].

Transparency

Different challenges occur for CU and EUA in reporting adverse effects. It is relatively easy to report adverse effects when CU is applied more often in physician follow-up and on a small number of patients. However, in drugs and vaccines that have received EUA, feedback

will be insufficient due to the population load and the expectation of notification from patients.

It is crucial to obtain more comprehensive efficacy and safety data on the use of EUA drugs in treatment, where evidence of efficacy is weak. All care processes (order of medication, duration of treatment, etc.) of patients receiving EUA should be reported in detail and carefully in order to ensure the level of transparency required for backward reviews^[55]. Meticulous data acquisition and rapidly scaling clinical trials are critical to establishing a quality evidence base during pandemics. In the study that aims to shed light on the data acquisition process in the research of antiviral treatments for the prophylaxis and treatment of viral infections for the management of the COVID-19 pandemic, it is pointed out that the data collected from patients by modelling the influenza pandemic are underreported. It is also suggested that tolerance to treatment is incompatible with the commitment to collecting high-quality data for treatments, which is a failure to the standards expected of modern evidence-based medicine. It is indicated that patients are treated with drugs that are not registered for the indication of pandemic influenza (H1N1). This is not under high-quality data acquisition conditions, and the reliance on use under compassionate conditions leads to constant uncertainty about the potential benefits and harms of antiviral therapy^[56].

During the phase-III trials of the COVID-19 vaccine developed by AstraZeneca, DSMB reported their concerns about the information published on preliminary data of its clinical trial. DSMB made a statement their concern that AstraZeneca contained out-of-date information in this clinical trial, which may provide an incomplete view of efficacy data^[34]. Nevertheless, we have witnessed a good example of transparency led trust during the use of the vaccine belonging to the same company. Earlier in September, a multi-country clinical trial of a leading vaccine candidate being developed by AstraZeneca and the University of Oxford in the UK paused as researchers assessed a possible safety risk affecting one of their participants^[57]. Pauses in such trials are pretty common. This is a sign that auditors strictly follow the security protocols. Given that scientists are under pressure to test this vaccine rapidly, this is reassuring.

Informed Consent

In clinical practice, the patient must be informed about the interventions to be made and give their consent. When it comes to clinical trials, it is not possible to

inform the patient as in clinical practice. According to the Declaration of Helsinki, the subject must be adequately informed of both the anticipated benefits and the potential risks that may occur^[40].

Patient consent should be more sensitive in the case of an unapproved investigational drug that may lead to serious adverse effects. Patients should be asked clearly if they are willing to take the drugs used within the EUA^[55] because EUA differs from routine clinical practice standards in terms of the level of evidence and risks. For this reason, it is essential to make sure that the patient fully understands those different and particular statuses. Similarly, distinguishing EUA from CU and clinical trials properly during the information will be a facilitating for the patient's decision-making.

For instance, in the case of a recommended EUA use of COVID-19 vaccines, informing patients including indications shouldn't be that different from foreign or supranational regulatory agencies and relevant supporting studies. The meaning of the type of authorization issued by regulatory agencies (FDA, EMA, etc.) should also be included in informed consent. It is claimed that there is currently no data available on the sudden or long-term adverse effects of vaccines. It is emphasized that any complications identified in pharmacovigilance activity - within self-determination- should be immediately integrated into the label and informed consent^[54]. One of the suggestions for the off-label implementation of COVID-19 vaccines is the need to encourage practicing health professionals to report adverse and drug-related incidents in order to ensure accurate pharmacovigilance effectiveness^[58].

When an investigational drug needs to be used in treatment, the information for the patient is expected to be comprehensive enough^[40]. This is possible for the individual patient access within the CU program. However, it is a controversial issue whether the information provided for a drug that has been authorized for emergency use is comprehensive enough. There might be various reasons for this and these include the intense need for medication due to the burden of a massive patient population (density of health centers during the pandemic), to the lack of sufficient time and due to the insufficient willingness of health workers, these information processes may not be given the due care.

Another important reason is that patients are less likely to encounter health care workers. During the pandemic,

drugs were mostly delivered to quarantined patients, by other officials not by healthcare professionals.

3. Justice

There are challenges in providing investigational drugs to patients fairly.

Which patient will it be prescribed to? Is it the doctor who will determine this? According to what?

The first of these concerns is about the challenges experienced due to weak evidence for investigational drugs. The lack of evidence on the drug creates uncertainty about the patient population who will benefit from the drug. A detailed ethical framework is needed for the allocation of the drug prescribed in the EUA. For instance, although it was stated in the EUA for remdesivir that people eligible to use the drug should have a "severe" illness, it was indicated that the eligibility criteria in the EUA were broad enough to cover almost the entire clinical spectrum of respiratory disease^[55]. The healthcare professionals in the hospital will decide whether the patient meets the specified drug eligibility criteria, and when these criteria are not defined in detail will complicate the decision processes. In order to address these uncertainties, institutions try to create an allocation framework with detailed guidelines created by their own ethics committees. Although they can provide a certain level of solutions in practice, it is not possible to say that they completely eliminate ethical concerns.

The problem of determining the criteria according to which patients will be selected and how one should be prioritized^[59] is not limited to the interventions of treatment. Similarly, the uncertainty of these criteria is largely effective at the basis of this difficulty in determining the allocation framework in preventive interventions such as vaccines. Answers to who should be get vaccinated first, what is the legitimate basis for prioritizing in society (the superiority of one over another), requires these criteria to be defined in detail. Otherwise, those who need the drug/vaccine more and urgently will not be able to access the drug/vaccine. Drug shortage can occur if there is no regulation of access to drugs for patients or people at higher risk.

For instance, it has been stated that recommending CQ/HCQ for the treatment of COVID-19 based on weak evidence may cause patients to use the drug without consulting a physician, taking an overdose, or the inability to provide medication for those who need it due to drug shortages^{[53][60]}. Although it was indicated that

HCQ can be effective in COVID-19, it was emphasized that there will be a shortage of supply and will make it difficult to treat patients for indications that it was originally developed and approved^[61].

Prioritization of Patients Using the Drug With the Original Indication

During the pandemic, it might be possible to use a drug with a new indication other than the original indication through drug repurposing or off-label uses. However, difficulty in accessing drug treatment is considered a risk for patients using drugs with the original indication, who are part of vulnerable populations, and it is criticized especially in terms of the principle of justice^[62].

In this inquiry, the weakness of medical evidence is used as an argument and it is argued that if prioritization is required for the allocation of the drug, the indication with stronger evidence should be prioritized. Accordingly, the level of medical evidence supporting the efficacy of drugs for the original indication is stronger than the new indication, as well-designed, controlled randomized controlled trials have been performed for the original indication, and large-scale retrospective analyzes using real world data are available and provide warranted results on long-term efficacy^[62].

In emergency situations, low quality study results may serve as the basis for the large-scale use of drugs. In this case, it is argued that evidence-based medicine would be violated if indications with poor medical evidence were given more priority than anything else and that the assessment of drug effectiveness would remain scientifically weak. There is criticism that drug repurposing will be a simple off-label use, devoid of both ethical and scientific support^[62].

Conclusions and Recommendations :

Whether under CU or EUA, although the use of investigational drugs for treatment purposes is not evaluated as a clinical trial, they should be evaluated in a different status from standard medical care, largely due to their clinical trial features and poor level of evidence in practice. It should be noted that any data collected during the treatment process are tools that will help strengthen the evidence in hand in terms of safety and efficacy.

In an emergency, both in the process of developing a new drug and determining a new indication of an existing drug, well-designed research (including endpoint

determination, etc.) should be approached with higher attention than routine.

A good endpoint in a clinical trial should be clinically relevant, capable of following the disease of the patients closely, rich in information, sensitive (liable, differential and well distributed). It should have (precise, low-variable, and reproducible) reliable information, be resistant to missing data, not affecting the treatment response, and be practical (measurable in all patients and affordable)^[45].

Some authors emphasize certain requirements that must be met in order for the use of the research drug in treatment to be ethically appropriate. These requirements are a justifiable need for use, not having a threat for the clinical development of the drug, adequate scientific evidence, the benefit of the patient as the primary target, the patient's informed consent, fair access, independent ethics review, and the declaration of treatment results^[63].

Unlike any medical intervention where information to the patient is expected to be complete, actual and understandable to the patient about the benefits, risks, and possible alternatives of the provided any medical treatment, informing the patient should be done more sensitively than a standard clinical care practice. It is necessary to make sure that the patient understands that the drug has a much weaker level of evidence compared to a drug that has been in use for many years in large populations and for a certain indication, where extensive data on its safety and efficacy have accumulated over time. However, thanks to such good information, the patient will be able to understand a realistic benefit-risk assessment for itself and make an autonomous decision about whether or not to accept the treatment.

The pharmaceutical industry in particular must provide a higher standard of transparency in the reporting of clinical trials in order to build and maintain vaccine confidence. They need to respond to the concerns of experimenters, researchers and the public, ensure confidentiality in trials and show respect for the privacy of participants. Also, the fact that the experimenters do not share the details of the research for confidential reasons of information, leads to the lack of desired transparency. By publishing actual clinical results and making the results public with execution policies, data can be evaluated apart from the research and the reported results and claims can be verified^[48].

It should be prevented from advertising the drugs and preventing anyone who needs/does not need it from

rushing to that drug, causing subsequent shortages. For instance, it has been indicated that recommending CQ/HCQ for the treatment of COVID-19 based on low-quality data may lead patients to use it without consulting, using overdose, and inability to provide medication for those who need medication due to shortage in pharmacies^[60].

Consequently, the lack of information about the pandemic that emerged in 2019 with great uncertainty also raises concerns in terms of its treatment and prevention. In order to relieve these concerns, pharmaceutical companies, health authorities and physicians have crucial duties.

Considering the fact that pharmaceutical companies continue their experimental processes against the pandemic, the greatest expectation from them is to be fully transparent and accurate in the presentation of the data they collect and produce.

In the face of a sudden epidemic, the existence of drugs and vaccines is not expected, but the information on the development processes of new drugs developed against the new epidemic should be reliable. This includes basic obligations such as designing the right research, determining the right endpoints, working with the right group of patients, and not advertising their own medications.

The primary duty for health authorities is to control the drug development and application phases by conducting strict supervision of pharmaceutical companies. Another duty is to ensure a fair distribution of approved drugs and vaccines for use. This will prevent shortage of pharmacies and ensure that those who need it most have access to it. Current guidelines and protocols to be published by health authorities are crucial for the effective use of health resources. Another duty that health authorities are responsible for is to inform and guide the community properly. It is of great importance that the population affected by the pandemic is accurately informed by both media organs and direct statements and guided to the right health institutions in order to eliminate the possible health issues.

Because they are the first contact with the patient, the duty for physicians is to accurately inform the patient or people who are likely to be affected by the pandemic and to treat them in a compassionate and altruistic way. The right information would allow the person to make the right decision for themselves. The greatest responsibility of informing the patient and society about investigational

drugs and vaccines is on the physicians. For this reason, physicians should also have access to actual and accurate information in this period. Physicians are the most reliable way to reach the patient with rigorously collected and synthesized information.

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Organ Donation: Opinion of a Muslim Heart Surgeon

Nawwar Al-Attar, *FRCS, FETCS, PhD, MBA*

*Consultant Cardiac Surgeon,
Honorary Clinical Associate Professor (University of Glasgow), Golden Jubilee Hospital,
Clydebank*

Correspondance : Prof N Al-Attar nawwar.alattar@glasgow.ac.uk

Abstract

Heart failure affects an estimated 64.3 million people worldwide (1). Heart transplantation is a well-established treatment option and remains the gold standard therapy for patients suffering from end stage heart failure (2) although major technological advancements have resulted in favourable outcomes following implantation of durable left ventricular assist devices (LVAD)(3). Currently, around 4000 adults undergo heart transplantation annually (4). However, the demand for donor hearts far outweighs the supply for this precious resource. This leads to increased waiting list mortalities, which range from 10 to 20%. Muslims needs religious guidance to combat the negative views toward donation in part due to religious concerns particularly in the rapidly evolving practice of transplantation. I aim to share my views as a surgeon in the broad context of organ donation and a recapitulation of the impact of the Covid 10 pandemic.

Organ donation

Transplantation is truly a lifesaving act, but it is not possible without the generosity and altruism of organ donors and their families and the hard work, coordination and determination of all the medical teams also involved in the process.

Organ donation laws vary across different countries in the United Kingdom. In England, Max and Keira's Law – the Organ Donation (Deemed Consent) Act, considers all adults in England as having agreed to donate their own organs when they die unless they record a decision not to donate (known as 'opting out') or are in one of the excluded groups but people still have a choice whether or not to donate, families will still be consulted and people's faith, beliefs and culture will be respected. Those excluded will be people under 18, those who lack the mental capacity to understand the new arrangements and take the necessary action; people who have lived in England for less than 12 months or who are not living here voluntarily and those who have nominated someone

else to make the decision on their behalf. Organ donation will not go ahead if a potential donor tests positive for COVID-19 and finally, few people die in circumstances where organ donation is possible. The legislation for Wales is 'deemed consent'. This means that if you haven't registered an organ and tissue donation decision (opt in or opt out), you will be considered to have no objection to becoming a donor. The Human Tissue (Authorisation) (Scotland) Act 2019 provides for a 'deemed authorisation' or 'opt out' system of organs and tissue donation for transplantation. The opt out system will apply to most adults aged 16 and over who are resident in Scotland. Under the opt out system, if you die in circumstances where you could become a donor and have not recorded a donation decision, it may be assumed you are willing to donate your organs and tissue for transplantation. The family will always be asked about the latest views of the deceased on donation, to ensure it would not proceed if this was against their wishes. Only in Northern Ireland is the current legislation to opt into organ and tissue donation by joining the NHS Organ Donor Register and sharing the decision with family. It is

also possible to nominate up to two representatives to make the decision for the donor. These could be family members, friends, or other people, such as faith leaders (5). A jurisprudential opinion on 'deemed consent' with respect to the Organ Donation Act 2019 was recently published in this Journal confirming from an Islamic juristic viewpoint, that abiding by this law is in concordance with the Shariah's rulings, not least because the person can opt-out of it during their lifetime. When an individual declines to exercise this right (one that is in operation throughout their life), it becomes their presumed consent that their organs may be taken for the benefit of another after the former's death (6).

The impact of the Covid 19 pandemic on organ donation and transplantation:

The latest report of Donor and Transplant Activity (up to 31 March 2021), compared with the previous year showed (7):

- there was a 25% fall in the number of deceased donors to 1,180
- the number of donors after brain death fell by 19% to 766, while the number of donors after circulatory death fell by 35% to 414
- the number of living donors fell by 58% to 444, accounting for 27% of the total number of organ donors
- the total number of patients whose lives were potentially saved or improved by an organ transplant fell by 30% to 3,391

On the other hand, the total number of patients registered for a transplant has decreased slightly (by 2%):

- 4,256 patients are waiting for a transplant at the end of March 2021, with a further 5,307 temporarily suspended from transplant lists
- 474 patients died while on the active list waiting for their transplant compared with 377 in the previous year, an increase of 26%.
- A further 693 were removed from the transplant list. The removals were mostly because of deteriorating health and ineligibility for transplant and many of these patients would have died shortly afterwards.

Some of the other key messages from this report are that, compared with last year show:

- a fall of 33% in the total number of kidney transplants

- a fall of 49% in the total number of transplants involving a pancreas
- a fall of 19% in the total number of liver transplants
- a fall of 7% in the total number of heart transplants
- a fall of 44% in the total number of lung or heart-lung transplants
- a fall of 40% in the total number of intestinal transplants

Focus on Black, Asian and Minority Ethnic (BAME) communities (members of non-white communities) in the UK.

While there is an urgent shortage of organs for transplant for people from all backgrounds the problem is particularly acute for black, Asian, mixed race and minority ethnic patients. According to the Organ Donation and Transplantation data for Black, Asian and Minority Ethnic (BAME) communities Report for 2019/2020 (8), there is a high proportion of people from BAME backgrounds developing high blood pressure, diabetes and certain forms of hepatitis in the UK making them more likely to need a transplant at some point in their lives and they are indeed over-represented on the waiting list.

Getting the right tissue type and blood match is vital for the most successful transplant and the best match often comes from someone with the same ethnicity. In 2019/20, Asian people represented 3% of total deceased donors, 14% of transplants from deceased donors and 18% of the transplant waiting list; while black people represented 2% of deceased donors, 9% of transplants from deceased donors and 10% of the transplant waiting list (figure 1). This shows the continued imbalance between the need for transplants in black and Asian communities and the availability of suitable organs with the right blood and tissue type. Currently, only around half as many families from these communities' support donation compared to families from a white background, the numbers of BAME people becoming more engaged and agreeing to organ donation needs to be addressed. In 2015/16, 5.8% of people from BAME communities who registered their ethnicity opted-in to the NHS Organ Donor Register and in 2019/20 that rose to 7.8% although the report does not provide specific religion-centred data. There is significant over-representation in the number of opt-outs from BAME communities. In particular, 52% of these opt-outs were made by Asian people, mostly of Pakistani origin (30%), followed by white people (26%) and black people (17%).

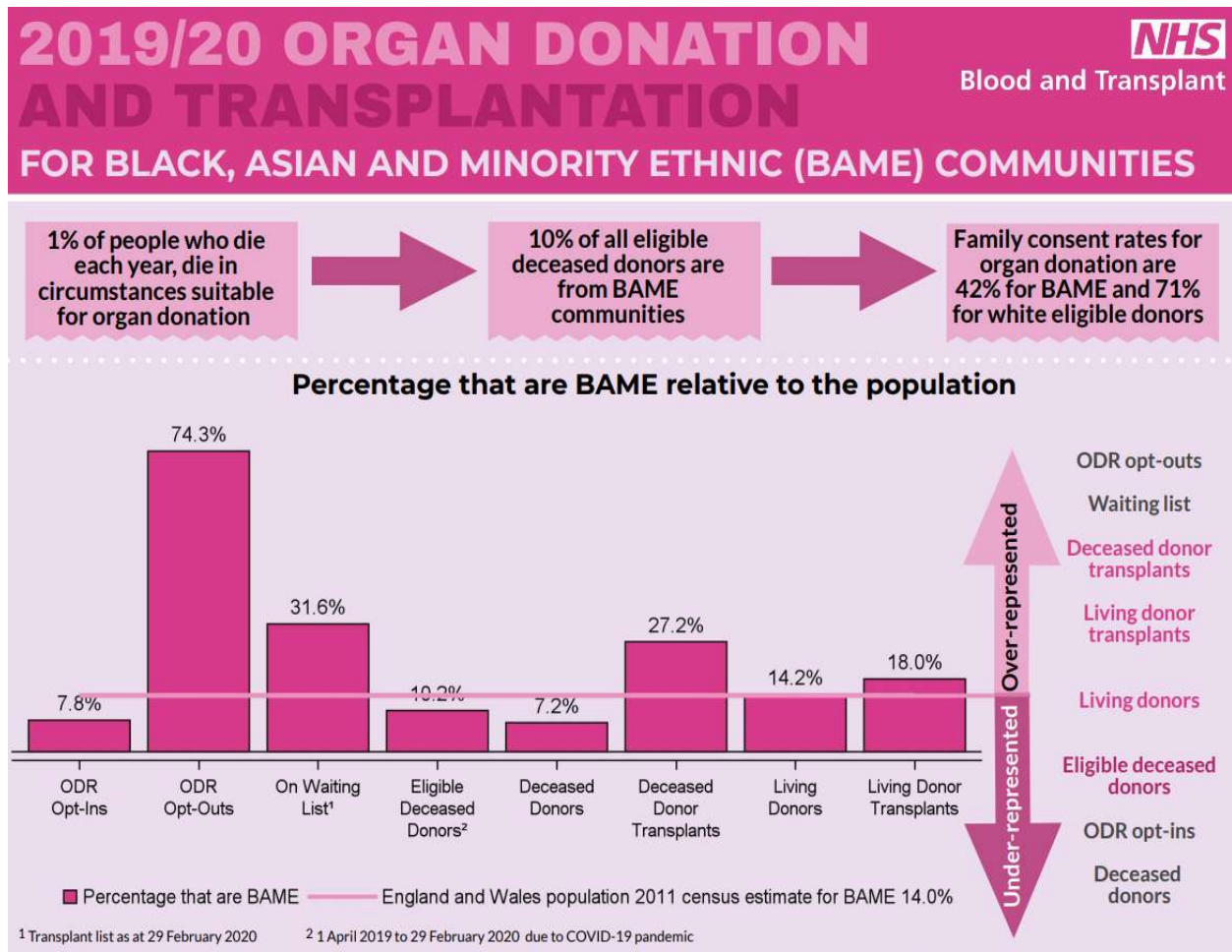


Figure 1: Organ donation and transplantation in Black, Asian and ethnic minority (BAME) communities. Families are less likely to discuss organ donation and are much more likely to decline to donate organs for lifesaving transplants.

A recent survey in attitudes towards organ donation among black and Asian communities reveals a shift from a negative to a neutral position, this figure has almost halved over the last year while the proportion of people unsure whether they want to be a donor has grown, indicating and the number of black and Asian people who would donate some or all organs after their death has risen from 11 to 15 %. Almost double the number were aware that organs matched by ethnicity had the best chance of success. And three times as many people knew that those from black and Asian backgrounds are more

likely to need an organ transplant than white people, table 1 (9).

Not knowing what their relative wanted or believing that organ donation goes against their religious beliefs or culture are the main reasons given by BAME families for saying no to donation when approached by specialist nurses, meaning opportunities for lifesaving transplants are still being missed because families are reluctant to discuss the topic of organ donation.

Table 1: Results of survey in attitudes towards organ donation among BAME communities (initial benchmark survey was carried out by Agroni Research in May 2018 among 1,034 adults)

	May 2018	March 2019
% of respondents who would not donate their organs	37	20
% who didn't know if they would donate their organs	30	43
% correctly answered that a better match is achieved with a donor of same ethnicity	22	39
% of respondents stated that black and Asian people are proportionally more likely to need an organ	11	35

The number of BAME transplant recipients has increased year on year, while the number of BAME patients on the transplant list has grown at a smaller rate over this time. Each year there are consistently more BAME living donors than BAME deceased donors.

In 2019/20, there were 1187 deceased and living donor transplants for BAME patients, 142 living BAME donors, 112 deceased BAME donors whilst 1909 BAME patients were waiting for a transplant. Although in the last year, there was an increase in transplants for BAME recipients, it is likely that the suspension of elective surgeries as a result to COVID-19 had some impact on these figures. Last year, BAME patients accounted for a third of patients on the transplant waiting list, a quarter of all transplants and 10% of donors were from BAME communities, figure 2.

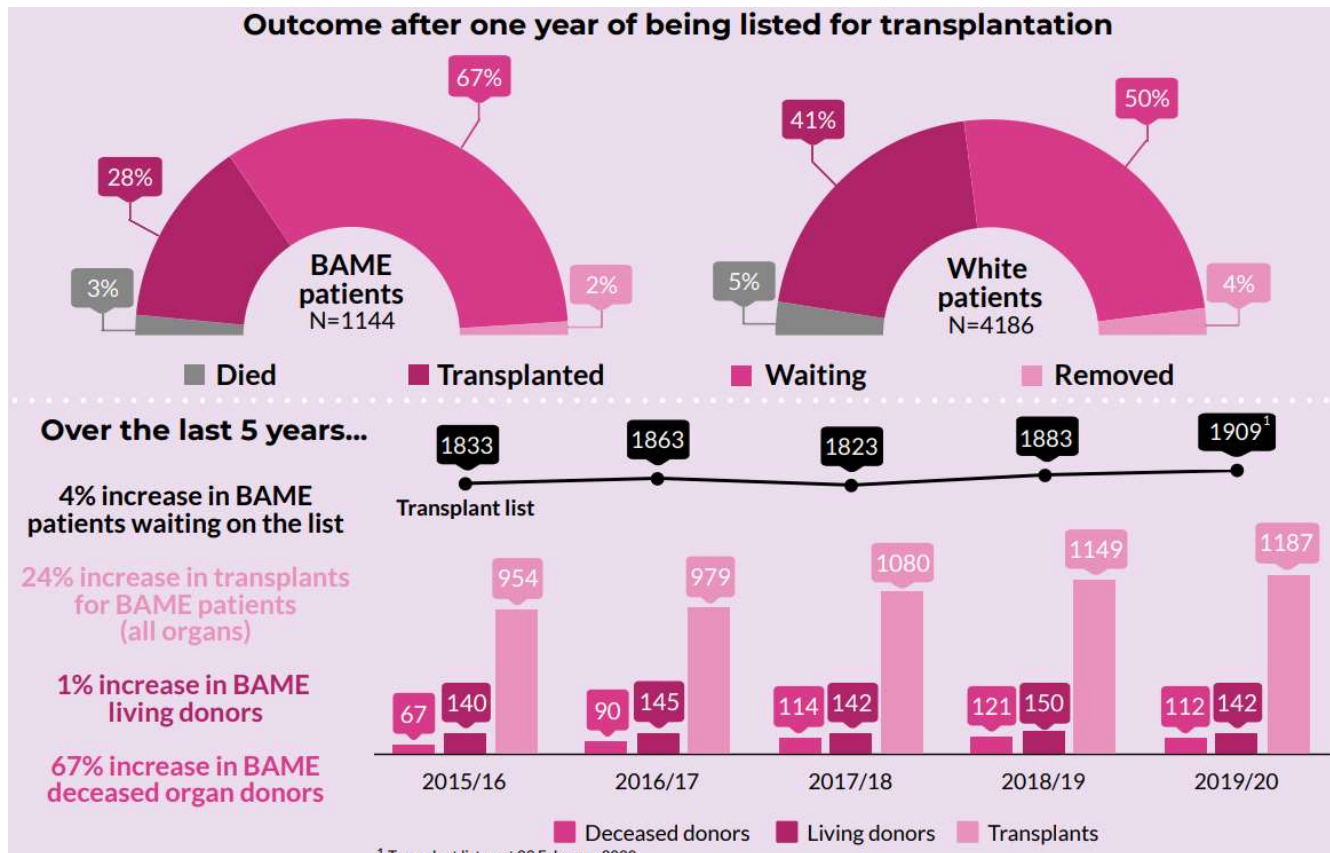


Figure 2: BAME patients' evolution on the transplant waiting list and 1 year outcome compared to White patients in the UK over the last 5 years.

The British Islamic Medical Association (BIMA) organised a national campaign on organ donation focussing on British Muslim attitudes towards organ donation. Of a total of 554 only 45 (8.1%) respondents were already registered donors. Reasons for not registering (n=127) were classified as faith beliefs & views on religious permissibility (73%), lack of knowledge on organ donation (21%), family influence & reluctance to discuss donation (2%), death & burial concerns (2%) and moral considerations (2%). Respondents from BAME backgrounds (Pakistani, Indian, Arab, Bangladeshi) were significantly less likely to be registered as organ donors than their White counterparts ($p < 0.001$). Interestingly, the accompanying educational campaign demonstrated consistent net increase in the number of attendees considering organ donation to be religiously permissible, across all variables (10).

View from an Islamic perspective:

The Prophet Mohammad (peace and blessings of Allah be upon him, *صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ*) said: “if one relieves a Muslim of his troubles, Allah will relieve his troubles on the day of resurrection”.

The scholars unanimously agreed that donating organs is regarded as an ongoing charity, and that the donor is rewarded with the permission of Allah. The Messenger of Allah (peace and blessings of Allah be upon him) said: “When a son of Adam dies, his deeds cease apart from three: a righteous child who will pray for him, knowledge from which others may benefit after him, or ongoing charity”.

The body is impermanent and that helping our brethren with end stage organ failure is noble humanitarian work. They are more deserving of the organs of our dead than the dust, and Allah (SWT) says in the Holy Quran (if anyone saved a life, it would be as if he saved the life of all mankind). This is true of organ donation after brain death because it can improve quality of life for patients with organ failure.

The details of Islamic jurisprudence on organ donation transplantation are beyond the scope of this paper and the abilities of the author. However, I wish to add my personal comments to an exhaustive document and fatwa “Organ Donation and Transplantation in Islam”: An opinion produced in June 2019 by a UK-based scholar, Mufti Mohammed Zubair Butt, a Jurisconsult from the Institute of Islamic Jurisprudence (11).

Practice of Organ Retrieval in light of 2000 Fatwa of European Council for Fatwa and Research:

In 2000, the European Council for Fatwa and Research (ECFR) declared its ratification of the resolutions of both the Islamic Fiqh Academy of the Muslim World League and the International Islamic Fiqh Academy on “Organ transplant from the body (dead or alive) of a human being on to the body of another human being” permitted with conditions. In relation to Deceased transplantation the resolution noted that death comprised two situations:

1. Death of the brain with the complete cessation of all of its functions in which, medically, there is no reversibility.
2. Complete cessation of cardiorespiratory functions in which, medically, there is no reversibility. In the first situation, two requirements needed to be met: firstly, the complete cessation of all brain functions [and not just of the brain stem] and, secondly, medical irreversibility [and not simply permanence]. The second situation also had two requirements: firstly, the complete cessation of cardiorespiratory functions and, secondly, medical irreversibility [and not simply permanence] (12).

In the UK, Donation after Brainstem Death (DBD) requires confirmation of death using neurological criteria (also known as brain-stem death or brain death) where brain injury is suspected to have caused irreversible loss of the capacity for consciousness and irreversible loss of the capacity for respiration. It follows the current UK Code of Practice for the Diagnosis and Confirmation of Death published by the Academy of the Medical Royal Colleges in 2008 (13). This is compatible with the Islamic definition of death and is not contested by scholars nor Muslims in general.

Human dignity

Human dignity in Islam is recognised for all humans as an expression of God’s favour and grace. It is the absolute natural right of every individual regardless of gender, colour, race or faith, and is established from the explicit, alluded and inferred meanings of the evidentiary texts.

The UK National Organ Retrieval Services (NORS) teams deliver a high-quality service working in the same settings (sterile operating room) and with the same modus operandi as any surgical procedure on a living human being; indeed, it is not possible to differentiate from the outside this procedure from other complex surgical interventions. From start to finish the procedure

is carried out with the utmost respect for the donor and in accordance with the family's wishes. The procedure consists firstly in assessing the suitability of the organs and excluding the presence of major contraindications to donation that could pose a risk to the potential recipients. Retrieving the organs requires a highly skilled lead surgeon who is competent, accredited and capable of identifying and respecting the complexity of the donor's anatomy. All lead surgeons are competent in dissecting the most delicate structures of the human body, preserving the relevant anatomy and ensuring a safe and successful transplantation. Organs that are not intended to be transplanted are NOT retrieved unless specified and agreed at time of consent authorisation. Organs are then safely packed into boxes that keep them cool while in transit to the transplant centre. On arrival, the transplant surgeon will again check the quality of the organs before proceeding to the transplant operation. The retrieval operation is concluded with the team de-briefing.

Conclusion

Deceased Organ Donation and Transplantation in the UK aligns with Islamic practice in meeting all requirements to indicate the departure of the soul from the body, and in the absence of any clear evidence to prohibit the transplantation of human organs and in the pursuit of public interest, it is permissible and is provided with the assurances that the organ or tissue is donated with the willing consent, whether express or implied, of the deceased and the procedure is conducted with the same dignity as any other surgery.

British Muslims are less likely than British non-Muslims to be organ donors, and religious concerns are a major, but not the only, perceived barrier. Further education may improve organ donation rates among the Muslim community as there is need more people from BAME and Muslim communities to be prepared to donate in life or after death.

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The History of Neurosurgery in the Islamic Era in Middle Ages

M. Jalal Annajjar¹ & Rawan Ebrahim²

1- Neurosurgeon, Department of Neurosurgery, University of Aleppo, Syria

2- Department of Medicine, University College London, UK

Correspondence: jalalsurgeon@yahoo.com

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Abstract

Human knowledge in all fields and disciplines has been developed over thousands of years, every new generation takes the knowledge discovered previously and either adds onto it or corrects any errors found within it. There is a disturbing misconception even within Western Scientific Literature regarding the role of the Islamic Golden Age scholars. Often perceived as mere translators of previous generations' knowledge, their role in the development of the human knowledge is often overlooked and underappreciated.

In truth, If the scholars of the Islamic Golden Age had merely preserved honestly the ancient cultures without adding anything else, that would be a great contribution to the human web of knowledge by itself. Notable examples include the works by Hippocrates and Galen, all other copies of their works were lost or destroyed except for their Arabic versions. However, their contributions were not only limited to this and in fact there were many new fundamental developments to the web of knowledge that took place in this era, including the work of Al-Khawarizmi in the field of Mathematics and Ibn Al-Haytham in the field of Optics. The field of Medicine is no different, with many significant developments taking place in the Islamic Golden Age particularly surrounding Neurosurgery (the subject of focus in this article). The aim is to explore the progression of neurosurgical knowledge and how the works developed or transmitted from the Islamic Golden Age have major implications for practice today.

Introduction

In the beginning of the eighth century, the intellectual centre of the world shifted towards the Middle East and flourished until the beginning of the 13th century. It is this period that we refer to as the Islamic Golden Age. During this era, the Islamic and Arabic scholars were of paramount importance in guarding the knowledge that had been accumulated throughout history, particularly the contributions of Greek and Roman scholars. The greatest known examples are the works by Hippocrates and Galen, all other copies of their works were lost or

destroyed except for their Arabic versions. The scholars of this age were primarily responsible for transmitting these works to later generations, which have even survived until now. In addition to preserving this wealth of knowledge of other great civilisations, these Middle Eastern scholars, including physicians such as Avicenna, Albucasis and Rhazes made significant contributions of their own to both medicine and neurosurgery (Rahimi et al, 2007). Many points regarding ancient Arabic and Islamic sciences need to be discussed and clarified further in Western Literary circles, but this article will predominantly be focused on the history of

neurosurgical practice, instruments and the development of neurosurgical knowledge and techniques during the Islamic Golden Age. Furthermore, this article will explore the ways in which this knowledge was developed during the Era in question, including the translation of other civilizations' works and through research conducted by Islamic Golden Age contemporaries.

The fundamental principles used more than one thousand years ago for learning and developing medical and surgical skills are still hugely relevant in our time. For example, improving our neurosurgical skills now depends on one approach: practicing in the lab, studying anatomy and cadaver dissection. This practice gives us the right experience to carry out our work, and it is the same principle used ten centuries ago by Islamic and Arabic scholars in medicine. In the introduction to his book, Al-Bucasis pointed out that good practice in surgery requires a sound knowledge of anatomy or the patient's life will be in danger (Aciduman, Belen and Simsek, 2006).

Ibn Rushd Al Andalosi (Averroes 1126-1198) was a philosopher and a physician, he said: "He who is engaged in the science of anatomy, increases his belief in God (Savage-Smith, 1995). This quote from Ibn Rushd provides a great insight into the motivation to learn and study that drove many physicians of the age to make new discoveries. Many factors including the correct understanding of Islamic principles, the political stability of that era, along with the tolerance and assimilation of different cultures played an important role in the rise of such an exceptional civilization. The idea that developing and contributing to anatomical and basic sciences would elevate their ranks spiritually provided encouragement to develop and improve their practice.

It was likely this drive to attain a worldly and spiritual success that drove Al-Bucasis to invent the non-sinking skull perforator and guide Avicenna to think about tracheal intubation by golden tube to support breathing. In the same way as the heritage of the ancients was studied with great respect, non-Muslim scientists, Jews, and Christians in particular, were respected and played important roles in the scientific community. It was the open, non-dogmatic atmosphere that encouraged people to engage in debate, share ideas and seek new knowledge by asking questions and examining evidence (Hehmeyer and Khan, 2007). This concept of discussing new findings and scrutinizing evidence is the basis of medical and surgical conferences today, with physicians and surgeons from all over the globe engaging in a critical appraisal of evidence. Some notable individuals included

the famous anatomist Uthman ibn Mas'ud (d. 875), known as Joannes Damascenus, who carried out his anatomical animal dissection under direct support from the Caliph. These scholars also included Ishac al Israili, Honein ibn Ishak (Joannitius 809-873), and many others.



FIG 1 Portrait of Al-Bucasis and other Arabic scholars



FIG 2 Arabic translation of Galen work on the first page as a reference documentation

Scientific background for an exceptional civilization

Near the beginnings of the Islamic Civilisation in the 7th and 8th centuries, medicine went through its first period, the translation and preservation of knowledge pioneered

by previous generations. In the 9th century onwards, it took on the role of contributing to the development of new knowledge for future generations.

The translation of older works was supported by the government, Caliphate, at that time and this support shows us how important translation was for improving society, and it was done in an honest way. For example, the Caliph al Maamoun paid a translator the weight of his translation in gold.

Mentioning the original works of ancient scholars as references on the first pages of these Arabic books was done as proof of the translator's respect and honest translation.

As a government policy to observe and control the medical occupation in 931, the Abbasid Caliph in Baghdad ordered the chief court physician, Sinan Ibn Thabit, to screen the 860 physicians in Baghdad. Only those who qualified were granted a license to practice (Spink, Lewis, 1973).

This demonstrates how much their work was politically supported. This is one of the earliest examples in human medical history of government regulation in medical practice which has proved to be such a vital tool in Western Nations to ensure a consistent and excellent standard of care to be delivered to patients.



FIG 3 Anatomical books and diagrams for animals and human body

Contributions and Developments to Neurosurgery

Abu Bakr al Rhazi's (Rhazes 850-923)

Abu Bakr alRhazi's (Rhazes 850-923) contribution to neuroanatomy is well documented in his works in Kitab al-Hawi fi al-Tibb (The comprehensive book of medicine) and Kitab al-Mansuri fi al-Tibb (The book on

medicine dedicated to al-Mansur). He described nerves as having both motor and sensory functions and as originating in pairs from the brain and spinal cord with membrane coverings (Rahimi et al 2007). He was the first physician to describe concussion (Rahimi et al, 2007), (McCrorry and Berkovic, 2001) also in his book are lessons to his students to avoid injuring the small nerves while making the surgical flap, he states: "The surgeon must therefore know the anatomy of the nerves, the veins, and the arteries, so as not to sever them by mistake." (Aziz, Nathan, McKeever, 2000), (Stephenson, 1930). Contrary to Galen's belief that the brain, spinal cord, and ventricular system were single structures, Rhazes correctly hypothesized that these were paired structures (Awad, 1995).



FIG 4 Portrait of Rhazes

He divided the peripheral nerves into eight cervical pairs, 12 thoracic pairs, five pairs in the lumbar spine, and three in the sacral spine, and he used this knowledge of segmental nerve innervations to pioneer the localization of lesions in patients (Flamm, 1967), a methodology that now forms a fundamental part of clinical examinations now whereby specific motor and sensory functions are tested to assess the condition of specific nerves.

There was a patient who presented complaining of numbness in his little finger after neck trauma, Rhazes said this patient must have a problem in the last cervical vertebra because he knew from his anatomical studies that the nerve from the last cervical vertebra goes to that finger. Rhazes described the ascending laryngeal nerve and noted there might be two or double branches on the right side and changed the concept of Galen that the brain, spinal cord, and ventricles are single structures, Rhazes confirmed that they are paired structures (Rahimi et al, 2007).

Abu Alkasem Al Zahrawi (Albucasis 936-1013)

"Without doubt Albucasis was the chief of all surgeons" Pietro Argallata (d. 1423) (Al-Ghazal, 2004). Albucasis considered the father of operative surgery (Nabri, 1983). (Masić et al, 2000), and father of Modern surgery by others (Al-Zahrawi - Wikipedia, 2021), (Ahmed, 2008). Before the Islamic era, surgery was considered inferior to medicine, and surgeons were held in lower esteem. Albucasis was the one of first to separate and classify surgery as distinct from internal medicine. Surgery was referred to as hand work or iron work, and this was the title of Albucasis' tremendous book *Atasreef*. The 30th chapter was titled "On Surgery or hand work". (Spink, Lewis, 1973). He was born in 936 AD in Al-Zahra', a suburb, six miles northwest of Cordoba, the capital of Spain (Andalusia) at that time. His ancestors were from the Al Ansar tribes of Al Madina Al Munawwarah who came from the Arabian Peninsula with the Muslim armies which conquered and lived in Spain. Albucasis travelled rarely and spent most of his life in his hometown as a practicing physician-pharmacist-surgeon⁽¹³⁾ (Amr and Tbakhi, 2007).

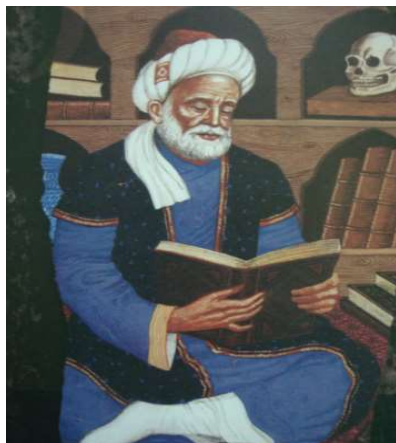


FIG 5 Portrait of Albucasis

He could not achieve this level without advancing the other medical fields, so he developed for the first time the anaesthetic sponge. Before that era, anaesthetic solution was given in multiple doses to patients to make them unconscious for surgery, but Albucasis was the first to use a sponge steeped in aromatics and soporifics and then dried. When anaesthesia was required, the sponge was moistened and applied to the patient's lips and nostrils. The Arabic innovation was to immerse the anaesthetic sponge in a boiled solution of water and hashish (from Arabic hasheesh) opium (from Arabic afiun), c-hyoscine (from Arabic cit al huscin), and zo'an (Arabic for "wheat infusion"), which acted as a carrier for the active

ingredients after the water evaporated. Such anaesthesia by inhalation was called "Arabian Nights" (Al-Fallouji, 1997). Albucasis was also a pioneer in developing surgical instruments. In his encyclopaedia, he introduced more than 200 illustrations of surgical tools with descriptions of how they work. As proof of his large number of craniotomies, he explained that he struggled with dural tearing while making burr holes. As a result, he was the first to introduce a non-sinking skull trephine for skull access, using a circular margin to avoid plunging into brain tissue and lacerating the dura (Goodrich, 2004). He was aware of the need for aseptic technique and used alcohol from wine during surgical procedures (Nabri, 1983) and keep the surgical tools ready for emergency cases. Albucasis was the first physician to explain a surgical treatment option for the temporal headache syndrome now known as temporal arteritis. He explained that relief from headaches could be provided by cauterizing the superficial temporal artery or ligating it with thread (Savage-Smith, 2000).



FIG 6 Portrait by Dr Qatay of Albucasis using his Anesthetic sponge during surgery, original manuscript in Al-Assad Library Damascus, Syria



FIG 7 Surgical tools of Albucasis with description and the way to use it, 30th Chapter (On Surgery) *Atasreef liman agiza an Ataaleef*, original copy in Wellcome institute, London 1973

Albucasis contributed to early descriptions of neurosurgical diagnoses and treatment including management of head injuries, skull fractures, spinal injuries and dislocations, hydrocephalus, subdural effusions headache and many other conditions (Al-Rodhan and Fox, 1986). He described vividly a case of hydrocephalus due to congenital defect of drainage of cerebrospinal fluid: "I have seen a baby boy whose head was abnormally enlarged with prominence of the forehead and sides to the point that the body became unable to hold it up".⁽¹³⁾

Albucasis was also the first to use surgical cotton, (which itself is derived from the Arabic word qutn) as a medical dressing for controlling haemorrhage (Savage-Smith, 2000). He discovered the cat gut for internal suturing, by noticing the dissolving nature of catgut when his lute's strings were eaten by a monkey (Al-Zahrawi - Wikipedia, 2021) and used the thermal cauterization to stop vessels bleeding (Spink, Lewis, 1973). He also described the first study of intracranial hydrocephalus in a new-born, while others spoke about the extra ventricular collection of cerebrospinal fluid (Al-Zahrawi - Wikipedia, 2021). Albucasis was ahead of his time in the realm of neurosurgery. His contributions were crucial in bridging the knowledge gap in the world of medicine from the Middle Ages to the more modern period following the 15th century (Rahimi et al, 2007) and his surgical teachings were the most advanced in the Middle Ages until the thirteenth century 20. Al-Tasreef was an essential component of the medical curriculum in European countries for many centuries. (14) The famous French surgeon Guy de Chauliac (1300-1368) quoted him over 200 times in his book appended its Latin edition to his own book on surgery. Several editions of this book (surgical chapter) were published including one at Venice (1497), at Basel (1541) and at Oxford (1778).

Albucasis' influence continued for at least five centuries, extending into the Renaissance, evidenced by al-Tasrif's frequent reference by French surgeon Jaques Delechamps (1513-1588) (Spink, Lewis, 1973). He also wrote of the importance of a positive doctor-patient relationship and wrote affectionately of his students, whom he referred to as "my children". He also emphasized the importance of treating patients irrespective of their social status. He encouraged the close observation of individual cases to make the most accurate diagnosis and the best possible treatment (Al-Zahrawi - Wikipedia, 2021). For perhaps five centuries during the European Middle Ages, it was the primary source for European medical knowledge and served as a reference for doctors and surgeons. In Al-Tasrif, Abū al-Qāsim introduced the use of ligature for

the blood control of arteries in lieu of cauterization almost 600 years before Ambroise Paré (Al-Zahrawi - Wikipedia, 2021) (Shehata, 2002), (Millán, 1999). Albucasis used and developed the modern plaster and adhesive bandage, which are still used in hospitals throughout the world (AT THE THRESHOLD OF A NEW MILLENNIUM III, MG Vol. 1 No. 3, 2021). The use of plasters for fractures became a standard practice for Arab physicians, though this practice was not widely adopted in Europe until the 19th century (Abdel-Halim et al, 2003). The street in Córdoba where he lived is named in his honour as "Calle Albucasis" and he was considered the father of modern surgery (Al-Rodhan and Fox, 1986), Pietro Argallata (d. 1453) described Abū al-Qāsim as "without doubt the chief of all surgeons" (Al-Ghazal, 2004).

Abu Ali al-Husayn ibn Abd Allah ibn Sina (Avicenna 980-1037)

Canon fi Tibb, by Avicenna was the second most published book (after the Bible) since the invention of publishing (25). Ibn Sina (Avicenna 980-1037) was one of the foremost philosophers and physicians of the golden age of the Islamic era. His encyclopaedia, The Canon of Medicine, bridged the gap between eastern and western cultures (Rahimi et al, 2007). He was honoured in the west with the title Prince of Physicians. In one of his annotations, he describes making a cranial incision and the way to avoid eyelid nerves: When one decides to make an incision or opening one should take into consideration the various small and larger folds of the skin. In the case of the forehead however one would act otherwise because an incision along the folds there would divide the muscles and cause drooping of the eyelids. Similar care must be taken in the case where the muscular fibres take a different course to the surface folds. The surgeon must therefore know the anatomy of the nerves, the veins, and the arteries, so as not to sever them by mistake (Rahimi et al, 2007), (Stephenson, 1930).

Also describing the values of spinal cord situation: "Nerves innervating the hands and feet would travel a longer distance and, thus be more prone to injury...Therefore, God created the spinal cord below the brain. The spinal cord is like a channel coming out of a fountain in the way that nerves emerge from both sides and go down, thus putting the organs closer to the brain"⁽²⁵⁾. He also described the vertebrae of the cervical, thoracic, and lumbar spine as well as the sacrum and coccyx in detail, he gave us the terms vermis and tailed nucleus, from which the medical landmark caudate

nucleus is derived. Furthermore, he described meningitis, which he considered to be inflammation or a tumour of the envelopes of the brain. Avicenna used electrical shocks to treat epileptic and psychiatric patients by using the thunder fish, or electrical fish, which he kept alive in water to avoid losing its charge, this was truly a remarkable discovery which later paved the way for Electroconvulsive Therapy (ECT) to be used in patients with severe epilepsy who are not responding to typical antiepileptics including benzodiazepines such as Lorazepam.



FIG 8 Avicenna Latin translations

The Canon was translated into Latin by Gerard of Cremona in the 12th century, and because of its superiority to Galen's medical book, it became the textbook used for medical education in European schools for more than six centuries (Aziz, Nathan and McKeever, 2000). During that period, it was the second most published book after the Bible since the invention of publishing⁽²⁵⁾. Avicenna tried to find an explanation for anatomic features, and he described the biomechanical features of the vertebra and the spine almost perfectly. He also described how the anterior longitudinal ligament is stronger than the posterior ligament because anterior movement is needed more than posterior movement⁽²⁵⁾ (Rahimiet al, 2007). His understanding of spinal anatomy allowed him to be one of the first to provide ways of stabilizing the spine. In The Canon of Medicine, Avicenna provides treatment options for spinal deformities such as kyphosis as well as for dislocations and fractures of the vertebrae (Aciduman, Belen and Simsek, 2006).

Furthermore, Avicenna described the craniovertebral junction and its injuries and said that injuries of the C1-C2 region are invariably fatal and cannot be treated. Unlike the ancient Greek physicians, he noticed the importance of dislocations of the upper cervical vertebra and describes their treatment. This contribution has had a huge impact on modern physiotherapy where a huge emphasis is placed on recovery and dislocation

treatments in the top athletes of today. In addition, he described flaccid and spastic-type bowel and bladder dysfunction in patients with dislocations of dorsal and lumbar vertebrae (Aciduman, Belen and Simsek, 2006). This observation laid down the foundations for other physicians to discover serious conditions such as cauda equina syndrome which is considered a medical emergency. His book also contains a very good description about the trachea and its cartilages, ligaments, and function in speech, breathing and swallowing; when describing tracheal intubation by using a tube made from gold or silver, he said: "When it is necessary, we can introduce a metallic tube made from gold or silver to the Trachea to help breathing. "This was part of the Latin translation of his book (Liber Canonis) published in Vienna 1507.

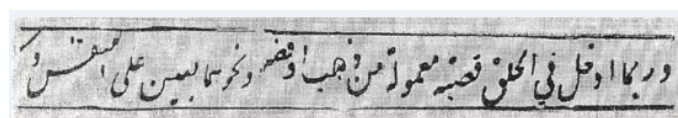


FIG 9 Arabic original manuscript about tracheal intubation

The big lie... the civilization gaps

Some people have tried to diminish these huge works by claiming that Islamic Golden Age scholars were only translators of other cultures and did not add new developments to medicine. It is an intellectual disservice to overlook such respectable pioneers of different geography and language that conjoined in one civilization. An honourable mention should also be given to Serefeddin Sabungoglu (1385–1468) despite establishing his works after the Islamic Golden Age. He was the author of Cerrahiyyetu 'l-Haniyye (Imperial Surgery), which was written in Turkish in 1465., who worked as a royal physician in the Ottoman Empire in Anatolia in the 15th century, it was the first illustrated textbook of surgery in the Turkish medical literature, containing colour illustrations of surgical procedures, incisions, and instruments When Sabuncuoglu completed Cerrahiyyetu 'l-Haniyye in 1465, he was 83 years old, the book describes surgical management of spinal trauma, epilepsy, migraine, facial palsy, hemiplegia, low back pain, cranial fracture, and hydrocephalus he was treating Hydrocephalus by draining cerebral ventricles trans cutaneously in hydrocephalic children (Elmaci, 2000) and sectioning the temporal artery for treating migraine.

To summarize the approach taken towards practicing medicine in the Islamic civilization, Al Tabari (850) in

his book “Firdaus al Hikma” (the Paradise of Wisdom) concentrating on the medical manners and the relationship between the patient and his doctor he stated:

The physician should be modest, virtuous, and merciful; he should be careful of what he says and should not hesitate to ask forgiveness if he had a fault. He should be forgiving and never seek revenge. He should be friendly and a peace maker. He should avoid predicting whether a patient will live or die; only God knows. He ought not to lose his temper when his patient keeps asking questions but should answer gently and compassionately. He should treat alike the rich and the poor, the master, and the servant. God will reward him if he helps the needy. He should not wrangle about his fees. If the patient was very ill or was an emergency case, he should be thankful no matter how much his fees. He should speak no evil of reputable men of the community or be critical of anyone’s religious belief. He should speak well to his colleagues, and he should not honour himself by shaming others (Al-Ghazal, 2007).

This description of the ideal medical professional and how they should act according to their ethics provides an insight into how ahead of their time the Golden Age contemporaries were. It contains many concepts that mirror medical practice recommendations given in the modern day including the GMC Good Medical Practice Guide.

Overall, this article has looked at the contributions to medical science, specifically neurosurgery, from the Islamic Golden Age through three of its most distinguished contemporaries. The discoveries were vast, ground-breaking, and still very much used and applied in the modern day.

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Behavioural Activation for Muslims (BA-M): a model for faith-based depression therapy in religious groups

Zahra Choudhry¹, Ghazala Mir²

¹PGDip, Psychological Wellbeing Practitioner, University College London

²PhD, PGCHE, BA (Hons), Associate Professor of Health Equity and Inclusion, University of Leeds

Correspondence: Zahra.choudhry@hotmail.com

Keywords: Religion, faith, culture, depression, mental health, service development

Abstract

BACKGROUND: There is low uptake of primary care mental health services by minority faith groups in the UK and poorer health outcomes. Commonly perceived barriers to access include the fear of cultural naivety, insensitivity and discriminationsuggesting NICE guidance on addressing cultural diversity in treatment for depression is not routinely implemented.

Faith-sensitive psychotherapy can be as effective or even more effective than standard approaches and is enthusiastically received by service users for whom religion is an important value. Researchers at the University of Leeds have developed a faith-sensitive therapy for Muslim clients (BA-M) based on Behavioural Activation, an existing evidence-based treatment for depression. The BA-M model provides a useful starting point forexploring the treatment needs of a broader range of religious groups.

METHODS: An interfaith workshop hosted by Sharing Voices, a community mental health organisation in Bradford, and funded by the Bradford Clinical Commissioning Group facilitated small group discussions with participants from a range of religious groups and occupational backgrounds. Discussions focused on the extent of demand for faith sensitive approaches in the religious community to which participants belonged, approaches that would help develop faith-sensitive treatments and views on whether the BA-M resources could be adapted to different faiths groups.

RESULTS: There was strong support from participantsfor faith sensitive approaches in therapy. Feedback highlighted the importance of involving religious leaders and service users in development, accredited personnel and validated materials, safe spaces for therapy, interagency collaboration, cultural competence and person-centred approaches. There was a clear consensus that the BA-M approach could be adapted to other faith groups to make mental health services more accessible and relevant.

CONCLUSION: The workshop provides evidence of a need to work with a broad range of religious communities to develop faith sensitive therapies for depression, to which access is currently limited in the UK.

Introduction

Mental health and minority religious groups

NICE guidelines highlight that it is essential for mental health practitioners to address clients' ethnic and cultural identity when developing and implementing treatment plans ⁽¹⁾. This guidance is supported by evidence that improving patient, practitioner and service understanding of therapy in the context of culture can improve cultural sensitivity in psychological therapy services ^(2,3)

However, commonly perceived barriers to accessing mental health services for minority faith communities include the fear of cultural naivety, insensitivity and discrimination ⁽⁴⁾. There is evidence of disproportionately low uptake of IAPT services by those from minority faith groups in the UK as well as poorer outcomes ⁽⁵⁾. Between 2018-2019 information on religion was collected for around two-thirds of IAPT referrals; Figure 1 shows that those identifying as Christian or no religion were more likely to recover after IAPT treatment than other groups. In comparison, only 43% of Muslim clients, 47% of Pagan and 50% of Sikh and Buddhist clients moved to recovery ⁽⁶⁾. These low access and recovery rates in UK minority faith groups highlight a clear and urgent need for service development that takes account of their specific circumstances and needs ⁽⁵⁾.

Religion	Referrals	Improved	Recovered
Christian	215,604	70.6%	55.1%
Muslim	36,077	63.6%	43.1%
Hindu	7,210	69.9%	53.8%
Sikh	5,705	69.3%	50.2%
Buddhist	3,181	69.3%	50.0%
Jewish	2,642	66.3%	53.1%
Pagan	2,048	68.8%	46.6%
Other	25,883	68.6%	50.5%
None	474,917	69.3%	51.6%
Not stated/Not known/Invalid	682,843	65.8%	49.5%

Figure 1: IAPT referrals and outcomes by religion, 2020/21 (Baker 2021)

Faith-sensitive therapy and mental health

Systematic reviews and meta analyses have shown the efficacy of culturally adapted therapies for depression and anxiety across a variety of religious and ethnic groups ^(7,8,9). Within this, a growing body of literature has

highlighted the role of religion in supporting mental health and recovery and faith-adapted approaches have been associated with achieving positive treatment outcomes. Such therapies can involve the adaptation of secular protocols to take account of patients' religious beliefs and values in order to be more client-centered and sensitive to religion as a resource for health ^(10,11). Adaptations can also include specific training of therapists in cultural competence to enhance patient engagement and the use of culturally relevant metaphors to increase their relevance and meaning to clients ^(7, 8, 10).

This evidence shows that faith-sensitive psychotherapy protocols can be as effective or even more effective than standard approaches and is enthusiastically received by service users for whom religion is an important value ^(10,12,13). Adapting existing evidence-based therapies to incorporate cultural elements has thus been widely recognized as an important step to increasing acceptability of these treatments, patient satisfaction and, ultimately, therapy effectiveness ^(10, 14,15,16,17).

BA for Muslim service users in Bradford

In recognition of the need for culturally-adapted therapies, researchers at the University of Leeds developed and piloted BA-M, an adapted therapy for Muslim clients, based on Behavioural Activation (BA), an existing evidence-based psychosocial treatment for depression ⁽¹⁰⁾. This adapted approach was based on an extensive literature review, that drew on a wide range of studies on diverse religious groups including Buddhist, Christian, Hindu, Jewish and Muslim populations ⁽¹⁸⁾. As part of the approach, a self-help booklet was developed in which Islamic religious teachings that reinforced the therapeutic goals of BA were presented along with standard BA activity sheets. The booklet was offered to clients who identified religion as an important value in their life, following a Values Assessment ⁽¹⁰⁾.

Therapists and supervisors at a number of sites across England have been trained to deliver the culturally-adapted approach, which supports Muslim clients who choose to use 'positive religious coping' as a resource for health ⁽⁵⁾. A number of other minority religious groups in the UK have expressed dissatisfaction with standard therapies and there is an increasing demand for approaches that incorporate spirituality into therapy ⁽¹⁹⁾. The need for cultural adaptation thus applies to a range of groups and the BA-M treatment model has potential to provide a useful starting point on how to address their needs.

Methods

In order to gain an understanding of the need and demand for faith-based therapy across diverse religious groups in Bradford, an interfaith workshop was hosted by Sharing Voices, a community mental health organisation, and funded by the Bradford Clinical Commissioning Group. GM presented her research about the BA-M model and, following this, small group discussions were facilitated with participants from a range of religious groups and occupational backgrounds (n=24).

Each group was asked to discuss and document their responses to the following three questions:

- Is there a need for faith sensitive approaches in the religious community to which you belong?
- What types of approaches would help?
- Could the BA-M self-help booklet be adapted to different faiths groups and if so how?

Participants self-selected their discussion groups and these were later classified into the following religion or professional categories to match representation at each table: Christian, Muslim, Hindu, police officers, voluntary or statutory sector mental health staff. Feedback from each group was discussed at the workshop by all participants and then collated for analysis into themes for each topic discussed (see Table 1)

Results

Need for faith sensitive treatment

There was strong support from all faith and professional groups for faith sensitive approaches in therapy. This was seen to provide a more holistic and person-centred treatment approach that supported greater respect and understanding of clients by therapists and was likely to improve client trust. The approach was also considered helpful in terms of educating professionals and countering the negative views of faith beliefs that could exist in mental health services. As such, it had potential to facilitate better and deeper engagement, particularly where clients and professionals had different explanations of the underlying health problem. The benefits of a more diverse workforce were associated with the need for such culturally sensitive approaches.

Drawing on faith and spirituality as a resource for mental health was considered an innovative way of supporting positivity in therapy and diversifying treatment choices.

At the same time, participants recognised the need to ensure personal choice in terms of whether a focus on religion was supported, as well as inclusive approaches that were not limited to particular denominations. The importance of sensitivity was also noted in relation to possible feelings of guilt or fear of judgement that might deter people from engaging with therapy that linked to their religious beliefs.

Helpful approaches

In terms of how to develop faith-sensitive approaches, a number of groups and participants highlighted the importance of involving religious leaders in the creation and validation of therapy materials to ensure these were based on relevant values and social context. The accreditation of these materials and the personnel would deliver therapy was also emphasised, including a need for evidence-based and systemic approaches.

Feedback also focused on the importance of a safe space for therapy, which some groups identified as non-clinical and destigmatised settings such as places of worship or GP surgeries. Interagency collaboration, cultural competence and a person-centred approach were also identified as important aspects of delivery, with therapy in different languages, approachability of professionals and outreach to male clients highlighted as specific issues to be addressed.

Adaptability of BA-M to other religious groups

There was a clear consensus amongst participants that the existing BA-M self-help booklet could be adapted to other faith groups in order to make mental health services more accessible and relevant. The model was seen by participants in general as easily adaptable, with Christian and Hindu contributors endorsing the approach and highlighting the need to involve service users and religious scholars in adaptations to their particular faith communities. Again, the need for sensitivity to excluded subgroups within faith communities, such as LGBTQ people, who could fear being judged from a religious perspective was highlighted.

Conclusions and next steps:

The workshop provides evidence of a need for mental health services to work with a range of religious communities to develop appropriate faith-sensitive therapies to which access is currently limited in the UK. GM is collaborating with religious scholars from the Hindu community in Bradford, who are particularly

interested in taking this work, to support positive religious coping within their communities.

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Table 1: Interfaith workshop: small group discussion notes

<u>CHRISTIAN TABLE</u>	<u>MUSLIM TABLE</u>	<u>POLICE OFFICERS (SIKH, MUSLIM, CHRISTIAN, NON-FAITH)</u>	<u>TABLE OF VOL AND STATUTORY SECTOR PROFESSIONALS</u>	<u>HINDU TABLE</u>	<u>NOTES FROM WIDER GROUP</u>
Q1) Is there a need for faith sensitive approaches in the faith community to which you belong?					
<p>Yes</p> <p>-The professional needs to align with faith as faith can provide guidance in the mental health sphere.</p> <p>-It can provide diverse representation which is required among professionals.</p> <p>-It can provide more positivity in therapy (messages of hope /love)</p> <p>-Can help clients feel more understood</p>	<p>Yes</p> <p>-There is a massive demand for this type of support (faith sensitivity) in the Muslim community</p> <p>-It can help clients feel more understood</p> <p>-If a therapist is aware faith approaches it provides better understanding and shows respect which creates trust in that patient – therapist relationship.</p>	<p>Yes, because it is person centred.</p> <p>-It allows professionals to be mindful of culture versus religion.</p> <p>-It is an alternative to medication.</p> <p>-Can be used as an engagement tool This new and not something that has previously been adopted</p>	<p>Yes</p> <p>-It can be helpful to understand the importance of faith for a person.</p> <p>-Learning about it would be helpful</p> <p>-Professional curiosity</p> <p>-Faith can sometimes be seen negatively in mental health services</p>	<p>Yes</p> <p>-There is definitely a need for a faith sensitive approach.</p> <p>-discussion of faith is very important as it builds trust</p> <p>-faith sensitive approach gives space for spiritual healing.</p> <p>-It provides a more holistic approach e.g. If one cannot explain their symptoms and doctor can't understand the problem, the problem will remain so a different approach like this will be helpful.</p>	<p>-Yes there is a need for more diverse representation across the workforce generally.</p> <p>-Professionals should have an overview of faith but don't need specific details.</p> <p>-Some people might not be practicing.</p> <p>-Be more mindful of culture and religion.</p> <p>-It can help people connect on a deeper level and help with well-being.</p> <p>-It can open up new avenues in therapy and diversify the offer</p> <p>-Yes, faith and spirituality - is a huge resource</p> <p>-People turn to faith in difficult times, it is helpful</p> <p>-Sometimes people have moved away from faith and it should not be forced on them.</p> <p>-A person's faith can be personal and they might not wish to share.</p> <p>-There are many different denominations within faith.</p> <p>-This can deter engagement as there might be a fear of judgement for accepting help "am I sinning"?</p>

Q2) What type of approaches would help?

<ul style="list-style-type: none"> -Group therapy -A well designed and accredited spiritual support guide for pastors -Spiritual leaders should be involved in the creation of the approach -Inter-agency working -a person-centred approach -informed approach 	<ul style="list-style-type: none"> -Using a values-based system -primarily a cognitive behaviour therapy type approach 	<ul style="list-style-type: none"> -Firstly, recognising the person as an individual and being sensitive to their religion. -Deliver this via a faith leader and/or personnel who is accredited to offer advice. This will help contextualise the approach. 	<ul style="list-style-type: none"> -Professionals should be aware of religious calendars and have a genuine interest. -By providing culturally competent and sensitive approach training for professionals -Use integrated working and systemic approaches 	<ul style="list-style-type: none"> -Provide reassurance and a safe space -Deliver in a non-clinical setting -Express confidentiality and offer in different languages -Therapies offered in place of worship/GP surgeries for easy access and this can also help to de-stigmatise accessing mental health support. -Therapists should be trained and competent. 	<ul style="list-style-type: none"> -Scholars/Faith leaders should be involved faith -Accredited person of faith to a credit the approach(s) -Start with values Easily adaptable methods that can be used for other faiths. -Use a person-centred approach especially for each age group. E.g. Different terminology for different age groups. -Professionals should be approachable, be able to provide reassurance and ensure the therapy session is a safe space. -Provide clear and accessible resources -More male-based events are needed to get insight into whether this will help them.
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Q3) Could the B-AM self-help booklet be adapted to different faith groups and if so how?

<ul style="list-style-type: none"> -Yes, it can be adapted. It can provide insight into the different Scriptures and how they approach wellbeing. -It is helpful to work with different faiths -Service user involvement should inform the views in this. -Use the BA-M and it's approaches to see how we can improve wellbeing for other groups too (BAME/Faith groups) make the service accessible 	<ul style="list-style-type: none"> -Yes -It is easily adaptable to Christianity, etc (Monotheistic Religions) -It depends mainly on the client's choice and their readiness to adapt to the book. 	<ul style="list-style-type: none"> -Yes, some parts might be transferable. 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> -BA-M booklet can be adapted by religious scholars/teachers to ensure appropriateness and pick out good learning and techniques 	<ul style="list-style-type: none"> -Yes, it can definitely be used as the model is easily adaptable, always start with values. -There are excluded groups within religion – LGBTQ, for example fear of judgement. -Not a one size fits all approach - it needs to be made personal by being more faith conscious
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The Lifesavers Method: Teaching Basic Life Support Skills Across Regions and Borders

Bismah Ali¹, Nooruldeen Al-Asali², Sameen Nassar³

¹BSc Occupational Therapy Student, London Southbank University; National Director, BIMA Lifesavers

²Nooruldeen Al-Asali FHEA, MSc Human Anatomy with Education, Sheffield University; Medical Student, MBBS Medicine and Surgery, Newcastle University; Regional Lead for North East of England, BIMA Lifesavers

³Sameen Nassar, Medical Student, MBBS Medicine and Surgery, Newcastle University; Regional Vice-Lead for North East of England, BIMA Lifesavers

Correspondence: Bismah Ali lifesavers@britishima.org

Introduction

The incidence of out-of-hospital cardiac arrest (OHCA) has become a global health disparity. Globally, it is estimated that less than 10% of patients will survive, after suffering an OHCA¹. Several studies^{2,3} have identified the rate of OHCA's are significantly increasing, however survival rates post-OHCA are higher in patients having received bystander CPR in Western countries.

Initiated in three Mosques in 2014, the British Islamic Medical Association (BIMA)'s Lifesavers project aims to teach basic life-support (BLS) skills across the nation⁴. The project takes a unique approach, led by healthcare professionals from within local communities utilising Mosques as the beating heart of the community. The Lifesavers project aims to bring together local healthcare professionals to unite and inspire one another and serve their local community through teaching universally recognised basic life support skills *i.e.*, *cardiopulmonary resuscitation, recovery position and choking management*. These skills equip communities, irrespective of their age, gender, ethnicity, or social status to save lives and help improve survival rates after out-of-hospital cardiac arrests. Today, the project has evolved to be delivered in over 80 Mosques nationally, and 12 countries internationally, culminating interest from several other countries.

In this article, we have used 'The Project Management Triangle'⁵ to identify aspects of the project which

facilitate the expansion and replicability of the project, in lieu of socio-economic prospects.

Scope

Whilst recognising the gap in knowledge in ethnic minorities and low-income backgrounds⁶, Lifesavers has been replicated in Malawi, Australia, Pakistan, Zimbabwe, Afghanistan, and several other countries; with the vision to continue to cut across borders and expand to Europe, America, and other parts of Africa. The project has culminated interest from many Muslim and non-Muslim community organisations, networks and projects including sports clubs, youth organisations and PTFA networks.

Generally, BLS is taught across most healthcare disciplines and to the majority of its professionals, creating a vast pool of skilled individuals who can be relied on to organise and deliver BLS teaching. The simplicity of BLS allows it to be standardised effectively on both a national and international level through various institutions and organisations that enforce this standardisation. This means that volunteers are likely to be on the same page regarding what information is delivered to participants of the project, with very few differing opinions on the actual substance of the skills to be taught. Along the same lines, resources concerning BLS education⁷ are abundant, and the majority are free of charge, easing the development of a comprehensive, interactive programme and flexibility in its delivery by the diverse team of healthcare professionals who teach it.

Cost

Inexpensiveness is another important factor in the success of delivering such a programme, particularly when many BLS courses are costly. The localised, community-led nature of the programme allows for members of a community to come together in support of the project and offer services free of charge. This applies at every level, from the venue (mosque) where the project is delivered, to the audio-video equipment required to deliver the teaching, and importantly, the provision of teaching being on a kind-hearted voluntary basis. This enhances the repeatability of and access to the project as money is not a barrier. At participant level, this ensures that these vital skills can finally reach the communities who need it the most - those of lower socioeconomic status who also happen to suffer from the most health inequalities, including awareness of and ability to carry out BLS in the community.

The cost has further been reduced through delivering the project without CPR Mannequins e.g. Annie's. Encouraging the use of alternatives such as pillows, teddy bears and other improvised methods to demonstrate and teach have reduced the need for logistical planning e.g. resource allocation and allowed the project to expand into remote areas, where resources may not be vastly available.

Time

Now in the eighth year of the project, adjustments have been made annually to optimise the model for maximum efficacy with delivery, considering feedback from attendees. Volunteers ensure audio-visual equipment is tested in advance and in place for the day, with backup options readily available to ensure the event runs smoothly. Our regional training day also ensures standardisation across all mosques hosting the event, allowing volunteers to practice and receive feedback in a simulated environment on the most effective methods to teach the attendees.

On event day itself, a strict timetable is followed to ensure attendees have time to assimilate the information, fully comprehend it and action it, with targeted feedback for each individual participant regarding technique. This is especially important when considering that cardiac output can be linearly related to chest compression depth⁸, highlighting the importance of teaching *effective* BLS skills.

Conclusion

The BIMA Lifesavers model has proven to be highly effective in delivering BLS training, reflected in the noted increase in confidence in delivering BLS by attendees. It also provides a unique opportunity to build positive relationships within ethnic minority communities and tackle health disparities at a community level in an accessible manner.

Acknowledgements

We would like to thank all the volunteers, who organised, supported, and delivered Lifesavers 2021 to their local communities.

Conflict of Interest

All authors have been involved within BIMA Lifesavers project in 2021, in voluntary and unpaid roles. BIMA is a not-for-profit and independent organisation. BIMA Lifesavers is the flagship project of BIMA which offers basic life support training to the community. The authors declare no financial conflicts of interest.

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Chronic Pain and Islam: A Consideration of the Muslim Patient's Journey as per Rothman and Coyle's Model of the Soul

Usman Raja¹, Dr Sabena Jameel²

¹*Fifth Year Medical Student, Intercalating in MSc Mental Health, University of Birmingham*

²*Medical Professionalism Lead and Senior Clinical Tutor, University of Birmingham*

Correspondence: Usman Raja uxr778@student.bham.ac.uk

Abstract

Chronic pain is a complex condition that pervades the existential alongside the physical and psychological. The existential framework with which a patient views chronic pain and suffering must therefore be considered. During the chronic pain patient's journey, an initial experience of grief and a sense of loss may give way to sustained change and existential benefit. For the Muslim, chronic pain provides an opportunity for reassessment, reconnection with their spiritual tradition and realignment with *fitrah* (divine disposition). It is a stimulus for *jihad annafs* (struggle of the soul) and may facilitate the soul's development as such, allowing for the development of character and virtues centred in existential fulfilment and informed wisdom. This commentary is informed by personal reflection during an elective placement with a chronic pain team.

Introduction

"...He does not break His believing servant except to mend him"— Ibn Al Qayyim^{1p.14}

Chronic pain is "a major source of suffering"². Individuals with chronic pain show an increased association with mental health disorders and a reduced quality of life³. This association is bidirectional⁴ and partially illustrated by the collective consideration of the biopsychosocial model, pain cycle⁵ and depictions of grief⁶. Chronic pain patients will seek or be referred for medical, psychological, and alternative therapies. However, these models and treatments may not sufficiently account for the existential impact upon the individual⁷. The "transformative potential" of chronic pain as a "gift" facilitating spiritual development has been documented⁸ and warrants consideration in the treatment of chronic pain. When considering the most 'healing' resolution for the chronic pain patient, the

framework within which they view 'suffering' must be understood. For the Muslim patient, this requires an appreciation of the Islamic philosophical and theological context⁹.

The field of modern Islamic psychology has provided Islamic models for clinicians to utilise when treating the Muslim individual^{10,11}. Rothman and Coyle's framework for an Islamic psychotherapy represents a major contribution to the field^{12,13}. The authors establish an academically rigorous model of the soul and self-development integral to the Islamic faith. This provides a suitable model within which to consider the 'role' chronic pain may serve in an Islamic context. This commentary will be informed by personal reflection undertaken during a three-week elective period with a chronic pain team. Explicit reflection, guided by Rolfe et al's reflective framework of 'What? So what? Now what?'¹⁴, will be shared to illustrate key concepts.

The Soul in Islam

Rothman and Coyle outline “distinct foundational elements of an Islamic conception of the soul”^{13p.1735}; nature of the soul; structure of the soul; stages of the soul; and development of the soul.

1. Nature of the Soul

The salient feature relating to the nature of the soul is *fitrah*, divine disposition. *Fitrah* is the internal compass that guides the individual to seek truth and meaning, in the form of the Divine. This fundamental need for alignment with God and objective truth is instilled in all and represents an incorruptible deep-rooted knowledge of God within the human being. For the Muslim, alignment with *fitrah* is the means to contentment and realisation of human potential.

2. Structure of the Soul

Rothman and Coyle consider the soul to be quadripartite (*nafs*, *qalb*, *aql*, *ruh*) with a “dynamic interplay”^{13p.1742} between components. The *nafs* correlates most readily to the ‘self’ or ‘ego’ of contemporary Western philosophy. It is considered to be a temporal manifestation, related to faculties of impulse and desire. The *qalb*, ‘heart’, refers to place where “consciousness resides”^{13p.1736}. Its semantic roots in the verb “to turn” indicate the *qalb*’s capacity to turn towards and away from truth and contentment. This etymology also outlines the heart’s ‘obligation’ to apprehend the flux of states both within and outside the human being¹⁵. The *aql*, an aspect that ‘intellects’, signifies the rational faculty of the soul and the target of cognitive therapies (Figure 1)¹². Though consensus regarding its dominion over other components of the soul vary in the Islamic tradition, Rothman and Coyle illustrate its role in regulation and discipline of the *nafs*¹². The *ruh*, unique to the Islamic context, describes that part of the soul which is considered the ‘spirit’ – unchanging, pure and with “direct access”^{13p.1736} to the Divine.

3. Stages of the Soul

In order to maintain alignment with the *fitrah*, a constant engagement with the soul’s components is required. Through ‘struggle’, one is able to raise the state of their soul and inhabit a place of greater spiritual liberation and presence (Figure 2). The Qur’an outlines three stages from which Rothman and Coyle build their model. The lowest station, *nafs al ammarah*, ‘the soul that commands’ details the individual who lives solely in relation to the desires of the ego. This unchecked stage is characterised by hedonistic priority and *ghafla*, the forgetfulness of God. *Nafs al lawwama*, ‘the self-

reproaching soul’, is the next stage and involves the resistance of desire and selfish tendencies and a struggle towards the moral and altruistic. The term ‘*lawwama*’ denotes the emphatic form and signifies the presence of guilt and remorse one feels, from their actions and intentions if not in line with their *fitrah*. The final station, *nafs al mutmainah*, ‘the soul at rest’ is an ideal stage representing the highest potential of the soul.

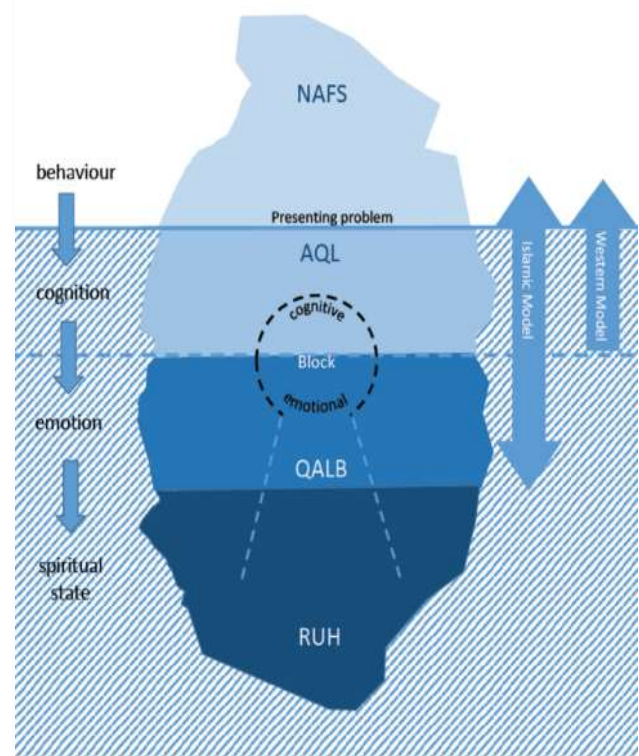


Figure 1 - The Iceberg Model of Islamic Psychotherapy¹²

4. Development of the Soul

For the Muslim, the purpose of life is centred upon self-development or “to uncover the *fitrah* by purifying the *nafs*”^{13p.1737}. However, while Islam suggests the ideal fulfilment of human potential is in the Prophetic exemplar, it does not dictate a minimum standard for all to achieve. Rather, each individual is tasked with self-progression and ultimately rewarded for their intention and effort.

Rothman and Coyle explain that *tazkiyatan nafs*, ‘purification of the soul’, where the *ruh* shines without infraction, is an ideal for those reaching the stage of *nafs al mutmainah*. Conversely *jihad annafs*, the ‘struggle of the soul’, is more applicable to the common person, seeking to gain and consolidate their hold upon *nafs al*

lawwama (Figure 2). This struggle, aided by religious obligations and Prophetic teachings, is a distinctly constructive and not destructive process within Islam. Shortcomings and inclinations are deemed to be ‘part of the process’, normal and transient as one progresses, rather than inherently evil or “fissures of the psyche”^{13p.1739}. Within this struggle, Islamic philosophy also identified the value of ‘virtue ethics’ in *tahdhib al akhlaq*, the reformation of character, referring to *muhlikat* and *munjiyat* ‘vices’ and ‘virtues’ respectively (Figure 2).

notes (as quoted by Hamza Yusuf) “to seek perfection in existence based on its foundation of imperfection is vanity”¹⁷. So, the individual’s existence within the temporal is characterised by the search for meaning (realignment with fitrah) and realisation of human potential (through jihad annafs), aided by trials and tribulations.

Suffering is thus not only beneficial but an expected and necessary component to human life. This view is exemplified further by the following Qur’anic verses:

*“And We will surely test you with something of fear and hunger and a loss of wealth and lives and fruits but give good tidings to the patient. Who, when disaster strikes them, say, “Indeed we belong to Allah, and indeed to Him we will return. Those are the ones upon whom are blessings from their Lord and mercy. And it is those who are the [rightly] guided”*¹⁸

*“Do the people think that they will be left to say, “We believe” and they will not be tried?”*¹⁹

The Muslim therefore reconciles suffering as part of divine omnipotence, Omnibenevolence and justice while taking comfort from the following *hadith*, Prophetic teaching:

*“How wondrous is the affair of the believers; verily, all of their affair is good. And that is for no one except the believers. When they are given a blessing, they are grateful, and it [the blessing] was good for them. And if they are afflicted with anything harmful [calamities, diseases, loss of wealth], they show patience. And therefore, it was better for them.”*²⁰

Accordingly, Izz al-Din ibn Abd al-Salam, a twelfth century jurist, outlines seventeen distinct benefits from trials which include aspects of self-actualisation (realising the individual’s place in reality), emotional and spiritual transformation (becoming and being patient, forgiving and grateful) and contentment²¹. Hence, the Islamic view of suffering sees the appropriate engagement with the self during tribulation as a facilitator of self-improvement and existential grounding.

The Role of Chronic Pain

1. A Means of Reassessment

It is arguable that not all trials in life are equivalent in the impact they may have and the growth they may instil thereafter. In *Surah Yunus*, the ‘chapter regarding Jonah’,

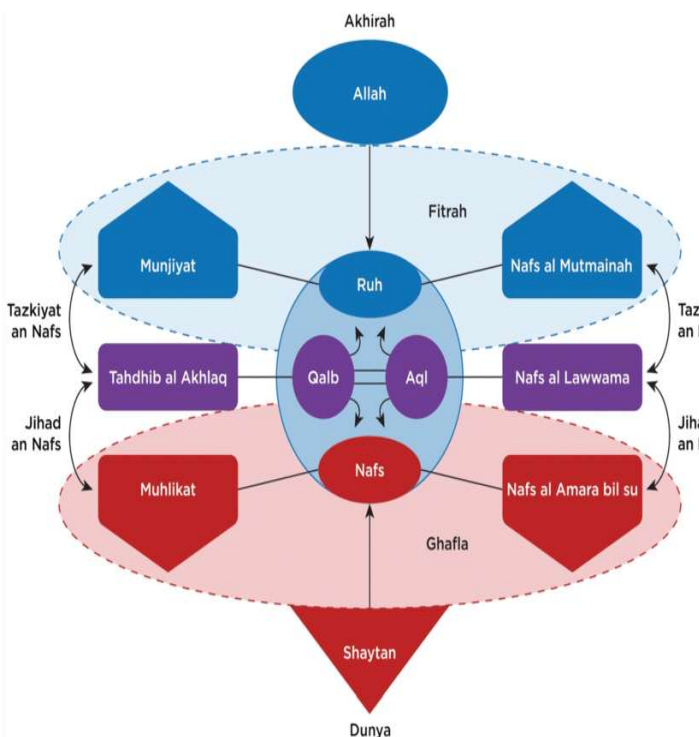


Figure 2 - An Islamic Model of the Soul¹³

Suffering in Islam

Victor Frankl’s assertion that the individual’s “primary motivational force”^{16p.104} is the “search for meaning”^{16p.105}, to which difficult and painful circumstances play a significant role, presents a helpful concept with which to begin to understand the place of suffering in Islam.

Islam suggests that the material world, *dunya*, while perfect in the execution of its function, is inherently imperfect in that it is “an abode of stress, despondency, tribulation and strife” (Imam al-Junayd as quoted by Sidi Ahmad Zarruq as quoted by Hamza Yusuf)¹⁷. To this end, Sidi Ahmad Zarruq, a fifteenth century scholar,

the Qur'an outlines a common human response to difficulty:

*"Whenever someone is touched by hardship, they cry out to Us, whether lying on their side, sitting, or standing. But when We relieve their hardship, they return to their old ways as if they had never cried to Us to remove any hardship!"*²²

Here, the Qur'an highlights the nature of trials in reconnecting the individual with their fitrah and Creator, but laments those who do so transiently and without appropriate reflection. In contrast, the unrelenting reality of chronic pain may predispose the human being to an active engagement with the immediate situation and consequentially their existential reality.

Due to the troubling existential weight they experience, the chronic pain sufferer is forced to 'slow down' and navigate the moral and spiritual. They must consider the manner in which they operate and the axioms, including allowances therein, which dictate their current spiritual state. Thus, the patient's chronic pain can serve as a means of spiritual awakening. An awakening, according to Ayad, in reference to Imam al Harawy's *Manazil al-Sa'irin*, 'Stations of the Wayfarer', that sees the individual recognise their "blessings, misdeeds and time's passage"²³.

The above is mirrored within Rothman and Coyle's conceptualisation of an Islamic psychotherapy, where reactions to traumatic experiences create "dysfunctional patterns"^{12p.207}. In this framework, the chronic pain sufferer experiences an emotional stimulus which causes an "imbalance"^{12p.207} and disrupts one's alignment with their fitrah. It is through careful consideration of this emotional "blockage"^{12p.207}, utilising aspects of the rational faculty (aql) in prescribed therapy (cognitive behavioural therapy) or outside of formal medicine, that the individual reconciles their immediate feelings and concerns. This healing process opens up further existential questions as they continue to engage with their reality and undertake jihad annafs.

In subsequent reflection, the human being will no doubt encounter issues of objective meaning and individual action. The initial separation from what had been considered to be 'meaningful' may cause a grief reaction, as normality and the foundations upon which they act have been removed. They may indeed be uncomfortable with their previous disposition and seek to better themselves while gaining a sense of moral awareness and presence, as outlined by nafs al lawwama. For the

Muslim, this must be considered part of the opportunity presented to them in the trial of chronic pain, as Al-Ghazali, an 11th century theologian, is quoted as saying:

*"If God wishes good for a believer, He gives them an awareness of their deficiencies."*²⁴

In Frank's consideration of narrative and *phronesis*²⁵, practical wisdom, in medicine, he suggests that those experiencing chronic distress fall into one of three patient journeys. The first is 'chaotic' and characterised by denial and a failure of responsible agency. The second is 'restitutive' and normalises illness while seeking to restore a return of function to the previous 'normal'. The third, akin to the ideas aforementioned, is the 'quest' narrative, where the individual begins to see their plight as the potential source of insight and guidance. The lessons of this quest are universal and applicable to the 'healthy' who do not "realise their own suffering"^{25p.214}. For Frank, this journey leads to an individual who lives in a more considered manner, learning to live *with* their fears and stressors (such as illness and mortality). Having benefitted from the experience of chronic pain, these persons will cease to "think *about* the story and start to think *with* it"^{25p.214}. Existential liberation is here begotten of physical and material contrition.

These notions are outlined by three consultations I had with a 60-year-old patient who suffered from chronic regional pain syndrome, following multiple operations on their right hand. They explained that initially they felt a great deal of anger and envy, before then attempting to 'ignore' their condition and 'do the things they wanted to do'. They further articulated that over time they learnt to 'not be defined by their pain' and have 'meaning beyond their physical condition', noting they were 'learning to value all the things that truly matter' with 'fresh eyes' and 'grounding'. Though this patient mentioned they began their patient journey with no religious background, they outlined how their renewed appreciation for life had come through a 'spiritual lens as much as a psychological one'. These conversations further illustrate the immense potential for inner development, the form it may take and the need for such discussion in the clinician's dialogue with chronic pain patients.

While the overall direction of inner movement is towards alignment with the fitrah and sees the individual's positive development, it ought to be recognised that this is not a linear nor straightforward process of progression. Rather, by the human being's very nature, there will be flux between states of the nafs, *iman* (faith) and even the narrative with which patients understand their condition.

This constant struggle is encapsulated by *jihad annafs* and should be considered 'normal' and 'expected' for the individual, especially in the view of the clinician and close company who may be prone to frustration given the perceived 'instability' of the pain sufferer. This struggle is attritive and cumulative without tangible measure at times and this can present a great deal of concern for the patient.

2. A Facilitator of Contentment and Virtue

As the human being partakes in *jihad annafs*, they begin to enter a more considered state of living, or *sulooq*. Here, the individual undertakes 'self-negotiation' and learns to 'unwrap' the 'gift of pain'⁸. This gift, initially understood as "disappointment, sadness or indifference"^{8p.11}, becomes "hope, gratitude...or healing"^{8p.11} as "self-sympathy becomes self-empathy"^{6p.14}. Islamic literature suggests that at such a point multiple interdependent concepts such as *tawakkul* (divine reliance) and *muhasaba* (self-analysis) become part of the individual's habit, allowing them to not only develop a sense of *sabr* (patience) and *shukr* (gratitude) but move beyond this more passive notion into an active *rida* (contentment) and *shahid* (divine testament).

When considering Rothman and Coyle's work, such an attitude is developed as the chronic pain sufferer begins to solidify their hold on the stage of *nafs al lawwama* and align with their *fitrah*. Here, a sense of contentment and trust in divine decree replaces the transient happiness rooted in hedonism and materialism. Nathan Kollar states that "meaning...liberates the human being from the present situation. It allows behaviour to be guided by many factors beyond the immediate environment"^{26p.18} and this exemplifies the development of the chronic pain patient from initial grief to 'attitudinal values'²⁷, where new concepts specific to their situation allow for coping, to self-actualisation, where truly altruistic virtues develop beyond the sufferer's own circumstance.

My interactions with a 68-year-old patient, undergoing laser therapy after decades of hip and back pain, illustrate this poignantly. Our first two conversations were dominated by talk of 'positive coping mechanisms' such as 'cognitive reframing' and the stoic attitude they had developed. However, by the third consultation they had begun to feel that there was a 'glass ceiling' in this approach and that they were learning lessons that would 'unravel' deeper changes and allow them to be 'present in a different way'. This particular patient began to show remorse for the manner in which their 'coping' had excluded their partner from their healing and expressed a

renewed desire to recognise the value of their partner. The most striking part of this patient's journey was the fundamental role 'the other' had in their reflection. They explained that the balance between individual reflection and time with clinicians, loved ones and other pain sufferers had allowed them to holistically consider their situation and recognise common humanity, thus becoming more empathetic.

This patient's experience echoes Hovey's sentiment that the lessons chronic pain may bring must be uncovered by the individual but with the help of others⁸. Hovey goes further and refers to Riess' notion that empathy, developed in this relationship-dependant reflection, is self-perpetuating in that it "leads to...renewal of vital human capacity"^{28p.76}. Hence, the chronic pain sufferer is able to not only behave with empathetic altruism through the lessons of their own trial, but when they have achieved their self-actualised state that they are able to do so authentically and to the existential benefit of both the recipient and donor.

Conclusion

The search for meaning is a fundamental process in the chronic pain sufferer's journey both as a patient and as an individual²⁹. Rothman and Coyle's model provides a helpful framework with which to begin to understand how questions of meaning, arising from the experience of chronic pain, may affect the Muslim's sense of self. In this context, chronic pain may provide the opportunity for spiritual reawakening and inner development. Further, from an Islamic perspective, the chronic pain patient may uncover and consolidate a responsible agency within a wider perspective of objective meaning founded upon an acceptance of life's events being beyond their control and there being divinely ordained benefit in all happenings. In such a case, the individual has benefitted from the 'quest' of chronic pain and identified their place within the larger 'quest narrative' of life, which Islam asserts.

If Muslim patients are to undertake healing rather than solely receive treatment, it is imperative that space to explore such themes and struggles are afforded to them, particularly by medical professionals. Such space must be founded upon the perspective that at the point of discharge, unlike many other conditions, the end of clinical dialogue is not the end of the sufferer's journey; rather it is a moment that must be prepared for so that it is a moment of realisation and liberation that grants existential independence, allowing them to live more fully and be present.

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The Guide to Ophthalmology (*Al-Murshed fi Al-Kuhl*)

by Muhammad Ibn Qassum Ibn Aslam Al-Ghafiqi

Reviewed by:

M. ZaferWafai, MD, FACS, FICS, FRCOphth. & SereneWafai, M.S.Ed.

Correspondence: Prof MZ Wafai (consultant Ophthalmologist – USA) zaferwafai@gmail.com

This book “**The Guide to Ophthalmology (*Al-Murshed fi Al-Kuhl*)**” which was written by Muhammad Ibn Qassum Ibn Aslam Al-Ghafiqi (D. 1197CE) Was published in 1990 in KSA after being Edited by Muhammad Rawwas Kalaaji, and M. Zafer Wafai(Fig. 1)

We owe the late Maronite priest, Michael Casiri, for being the first to mention this book and the author in the bibliography he wrote upon commission from the Spanish authorities to document whatever books were left from the Arabic manuscript after the devastating fire that destroyed most of the estimated ten thousand books in the Escorial library in 1671. It was estimated that less than two thousand manuscripts were saved with major or minor damage, this manuscript being one of them under # 835 ⁽¹⁾.

It is of utmost importance to differentiate between the author of this manuscript, who was a physician and oculist, and another scholar with the same last name but a different first name, who is known to be a botanist and druggist. His name was Abu Jaafar Ahmad Ibn Muhammad ibn Ahmad ibn Al-Sayed Al-Ghafiqi.

After Casiri, the book was mentioned by Wustenfeldin 1840 ⁽²⁾, and then by LucienLeClerk in 1876 ⁽³⁾. The famous ophthalmic historian and biographer Julius Hirschberg in collaboration with the orientalist J. Lippert and E. Mittwochexamined the Escorial manuscript and mentioned it briefly as a book called The Guide to Ophthalmology # 835. ⁽⁴⁾ Max Meyerhof studied this book carefully and translated several pages (365-406) into French ⁽⁵⁾ and stated that Pansier wrote about it in 1903⁽⁶⁾. Most recently in 1977 Dr. Hasan Ali Hasan studied the book and submitted his study as a thesis to obtain the Medical Degree from the University of Madrid ⁽⁷⁾.

It is surprising that neither the book nor the author were mentioned by the famous biographer, Ibn Abi Usaybiaa, or the more modern biographers like Al-Zirkly or Kahhaleh. The only modern biographer to write a very brief caption was the late prof. Kamal Al-Samarrai⁽⁸⁾.

There was some controversy about his year of death; some historians claimed that he died in 560AH (1165CE), but I disputed this claim from a statement in the book that in 595AH (1198CE), he witnessed the death of several people after eating a meal made of some kind of wild mushroom, and this should solve the controversy.

The author’s last name indicates that he was born in Ghafiq, which vanished and was replaced by a town called De Quijo near Cordoba according to the orientalist Prof. Miguel Asin Palacios.

The manuscript:

As mentioned above, the Escorial manuscript # 835 is the only known original and complete manuscript, it is made of 594 pages and written on the first page in Arabic and French that it was written in Malaga 991AH (1583CE) in Maghribi calligraphy. Unfortunately, the first and last pages are missing in addition to that a few pages were damaged from the water used put out the fire. I (MZW) requested to see the manuscript during my visit to the Escorial library in 1987 but was denied (Fig.2 and Fig.3).

I discovered two other manuscripts in the National Library in Cairo (Egypt) in 1984. The first bears # 1808 which is a copy of the Escorial #835 (Fig.4 and Fig.5).

The second bears # 3319, contains the name of the book and its author, but it is incomplete (only 462 pages), and the copier wrote that he copied it from manuscript #1808. This valuable book consists of six chapters, each one of them focuses on specific subject such as anatomy,

physiology, environment, unnatural factors affecting the eyes (diseases, wounds etc.) The fifth chapter was mainly to classify the eye diseases and their treatments (powders, ointments etc.) One chapter was dedicated to the compounded prescriptions.

This book is considered a complete collection of most of what was written prior to the author's time; he quoted twenty-three scholars (Grecians, Arabs and Muslims) and mentioned fifteen books and dogmas he used as references. What is amazing about this book is that the author listed five hundred simple medications from the mineral, animal and botanic kingdoms, in addition to sixty-nine compounded prescriptions which he modified some of their components.

This book, although it lacks any anatomical or surgical instrument illustrations, or optical theories or tables to classify the eye diseases, is still a valuable one, for it quotes twenty-three scholars, and lists five hundred simple medications and sixty-nine compounded prescriptions to treat all kinds of eye diseases. As for his surgical experiences and skills, we did not feel that he was a skilful and reliable surgeon.



Fig. 2: The first page of Escorial Ms. # 835



Fig. 3: The last page of Escorial Ms. # 835



Fig. 1: The cover of the edited book

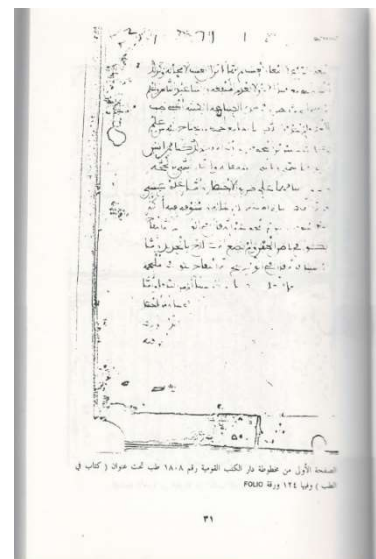


Fig. 4: The first page of Cairo Ms. 1808

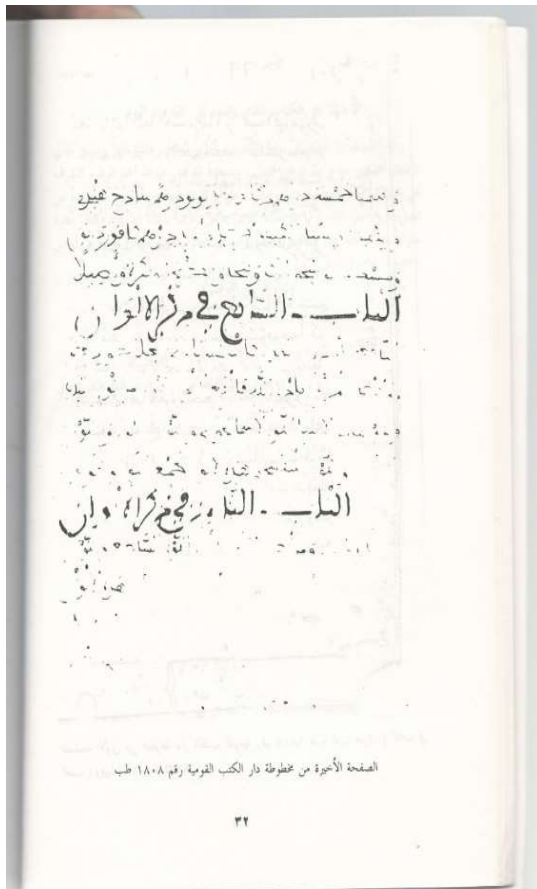


Fig. 5: The last page of Cairo Ms. 1808

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A Personal reflection on the issue of Autonomy and mandatory Covid vaccination for health care workers

Shakeel Ahmed

MBChB, MRCPsych, PGCertMedEd, Consultant Child and Adolescent Psychiatrist, Easington CAMHS, County Durham

Correspondence: drshak@hotmail.co.uk

I begin with the Islamic greeting of ‘May the Peace, Mercy and Blessings be upon you’ What an intensely relevant phrase in today’s world of divisions due to viruses, transmission, policies and restrictions. The science, as always, is in transition, in evolution, and we are still learning about covid-19. The data and the evidence is also being constantly revised and updated yet it is mostly presented as irrefutable fact, the ultimate truth. To question is akin to heresy, to be chastised by your friends, family and fellow professionals. We are living in the era of “You’re either with us or with the enemy”. Discussions on covid have led to ‘splitting’ of society and to question the official narrative makes you a conspiracy theorist.

The medical establishment has not been immune to this splitting. Within the opposing forces of changing evidence and urgency of the pandemic, what should guide our actions? For a start, first principles need to be consulted. For the medical profession, this must include principles of medical ethics (1). Without their guidance, it is easy to lose sight of who we serve, why and how we must serve them. What does it say about the state of the profession when it not only complies with, but encourages and promotes breaking of its main principle, Autonomy?

As healthcare professionals, our patients and the populations we serve, expect us to not only raise our concerns but to oppose draconian measures such as mandatory vaccination mandate for the healthcare staff. The evidence is very clear. Covid vaccinations do not stop transmission. It may reduce it (2) but again there is opposing evidence (3,4). How do these translate in the Omicron variant? In either case, it does not stop transmission. Given this fact, are we as medical professionals, happy to cancel personal autonomy as the

main ethical principle? Where will this path lead? What will this mutate into over the next few years? History including from the Nazi era and the Soviet Union warns us that when healthcare professionals disregard medical ethics, massacres occur. Regardless of our views on covid related policies or vaccination, we either oppose loudly and lead our colleagues in healthcare to protect medical ethical principles, or follow the examples of doctors who ignored these to carry favour with the establishment and become oppressors themselves.

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A jurisprudential Opinion on the Mandatory Covid Vaccination of Health Care Workers

Dr. Abdullah bin Yusuf alJudai, *PhD*

Sharia Advisor to Leeds Grand Mosque, Leeds,

Former Head of the European Council for Fatwa and Research (ECFR)

Correspondence: *Shaikh Dr Abdullah Aljudai* arac@fastmail.com

In the name of Allah, The Most Merciful, The Most Compassionate. Praise be to God, Lord of the Worlds, and prayers and peace be upon our prophet Muhammad and his family and companions.

I have received the following question from a specialist doctor:

Is it within the jurisdiction of the British government to mandate that workers in the health sector and those in centres for the care of children, the elderly, and the like, take the Covid vaccine so as to reduce the spread of the epidemic? Is this not considered an infringement on personal freedoms and state guardianship over people's free will?

In order for me to answer this question, it is necessary to clarify two religious rulings:

First: The ruling on taking vaccinations:

Taking a vaccine in order to safeguard oneself from a disease falls within the realm of medication and facilitating health which is advised by the Sharia on two levels: Firstly, as a recommended intervention if there exists an alternative. Secondly, as an obligation if medical specialists deem it a cause for health or disease prevention, or, if not taking it may lead to exposing oneself or others to disease and

hence running contrary to the principle of preserving human life.

Evidence of this is abundant in the Qur'an and Sunnah, for example:

The Almighty Says in causing the death of oneself or another: "And do not kill yourselves, for God is merciful towards you. And whoever does so out of transgression and oppression, We will punish him with fire, and that is an easy matter for Us to fulfil." [An-Nisa': 29-30]

Prophet Muhammad (PBUH) commanded medicating, "Medicate yourselves, for God has not created a disease without having created a remedy for it, except for the disease of old age." This text covers both whoever has fallen ill and whoever wishes to avoid disease, as medicating oneself causes immunity from disease in both cases.

Second: The ruling on the necessity of safeguarding oneself from infectious diseases:

Islamic Law mandates avoiding any facet that may cause the spread of disease, as indicated by the holy verse above.

Sharia also mandates applying the rule stated in Prophet Muhammad's Hadeeth, "Do no harm to oneself and do no harm to others." This means it is

not permissible for a Muslim to cause harm to others.

Prophet Muhammad (PBUH) also said, "A sick person may not cause the illness of a well one."

And of the Plague, he said, "If you hear it has infected a land, do not approach it, and if it falls upon a land while you are in it, do not leave that land to escape it."

Accordingly, if medical specialists deem that a disease is contagious and may lead to death, such as the Plague, then these proofs necessitate the prevention of this disease through every possible means. And since doctors and those who care for the sick and the weak must assist in treating such diseases and in mitigating their spread, it is obligatory for them to take more precautions against contracting this type of disease as they are responsible for the welfare of the patients they supervise, as well as their families and those of their patients. Since vaccines that help protect against these diseases are readily available, Sharia does not permit their refusal of the vaccine for the aforementioned reasons. This ruling extends beyond those who deal first-hand with these serious diseases and includes everyone who lives in an environment where such a disease exists.

In the case of Covid, having been proven an extremely infectious, life-threatening, and global disease, and where science has proven that taking the vaccine prevents or limits infection thereof and mitigates its ill-effects, no person may choose not to take the vaccine. Whoever takes this matter lightly and is afflicted by Covid leading to his/her death or causes harm to others by infecting them with this disease as a result of their negligence, then they bear the blame thereof.

Ruling on governments obligating healthcare workers to take the vaccine:

Based on the above, may the government in any

country obligate its citizens, particularly those working in healthcare or caring for the weak and the infirm, to take the vaccine, or does this infringe on personal freedoms?

To answer this, we note that personal freedom from a Sharia perspective is a right guaranteed to everyone, but it is nonetheless subordinate to rulings in Sharia. This means that freedom is not an absolute matter that allows one to choose doing something without considering its consequences. Rather, it is restricted by Sharia's mandates, especially when the consequences affect others. For example, if a father does not pay alimony for the sustenance of his children, he has committed a forbidden act and a judge must force him to pay it. If one aggresses against another's life or possessions, then he too has committed a forbidden matter and people of authority must hold him accountable.

Laws throughout the world are set in place so as to limit absolute freedoms, like not being allowed to drive a car without a driver's license, crossing a red light or exceeding the speed limit. These are examples of restrictions on freedom, but righteous restrictions nonetheless as they preserve rights and ward off evil, and this is what Sharia has brought forth.

God, Blessed and Exalted be He, granted us the freedom to strive in the land and gain means of sustenance, but He drew lines for us to follow, and made clear to us what is permissible and what is forbidden, and forbade us from transgressing the rights of others. Laws were then put in place to reflect the same.

Moreover, God forbade us from exceeding in the absolute freedoms He granted us, such as in food and drink; God Says: "Eat and drink and do not be excessive for He does not like the extravagant" [Al-A'raf: 31]. Excessive behaviour is harmful to oneself and considered a transgression, and more so in the

case where it is an act of harm against another person.

Based on all the aforementioned, Islam grants the ruler the right to limit people's behaviour and interfere with restricting that which relates to their freedoms in order to preserve public order, care for public rights, and prevent public harm. This includes imposing some types of taxes on their money to protect the country and allow for the provision of basic services, and in intervention in markets when trade is predatory or monopolized. Also, it is an established precedence that judges (i.e., in Sharia): restrain fools who squander their money from doing so, force husbands to divorce, order the payment of alimony, decide who gets custody of children, and many other matters, all of which limit personal freedoms, but for righteous reasons and interests which the ruler deems correct.

Accordingly, the British government's decree— that workers in healthcare and those in centres for the care of children, the elderly, the infirm, and the like, take the Covid vaccine so as to reduce the spread of the pandemic —is a sound one that is consistent with Sharia proofs and intentions, and that it is the government's right to decide on such measures which medical professionals have deemed necessary, particularly when no other viable alternatives exist.

God knows more in any case!

Dr. Abdullah bin Yusuf Al Judai, PhD

Sharia Advisor to Leeds Grand Mosque,
Leeds

حكم إلزام العاملين في المجال الصحي بأخذ لقاح كوفيد

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الحمد لله رب العالمين، والصلاة والسلام على سيدنا محمد وعلى آله وصحبه أجمعين.

أما بعد..

فإنه وردني من أحد الإخوة الأطباء المختصين السؤال التالي:

هل يجوز أن تلزم الحكومة في بريطانيا العاملين في القطاع الصحي وفي مراكز رعاية المسنين، بأخذ لقاح مرض الكوفيد؛ وذلك بهدف الحد من انتشار الوباء؟ ألا يعتبر هذا تعدياً على الحرية الشخصية ووصاية من الدولة عليهم فيما يعود إلى اختيارهم؟

وأقول في جواب ذلك، وبالله أستعين:

لا بد من بيان حكمين شرعيين توطئة للإجابة عن هذا السؤال:

الأول: في حكم أخذ اللقاحات:

أخذ اللقاح للوقاية من مرض ما هو من باب التداوي والأخذ بأسباب العافية، وذلك مأمور به في أدلة التشريع أمر ندى أو أمر وجوب، يكون مندوباً إذا قام غيره مقامه وكان سبباً مساعداً، أما وجوبه فذلك إذا غلب في نظر أهل الاختصاص في الطب أنه سبب في العافية أو الوقاية من المرض؛ وترك أخذه قد يتسبب في تعريض النفس أو الغير إلى الإصابة بالمرض، وحفظ النفس من حفظ الضرورات التي لا تصلح الحياة إلا بها، وأدلة ذلك في نصوص القرآن والسنة كثيرة، منها:

قوله تعالى: {وَلَا تَقْتُلُوا أَنْفُسَكُمْ إِنَّ اللَّهَ كَانَ بِكُمْ رَحِيمًا. وَمَنْ يَفْعَلْ ذَلِكَ عُذْوًا وَظُلْمًا فَسُوفَ نُصَلِّيهِ نَارًا وَكَانَ ذَلِكَ عَلَى اللَّهِ يَسِيرًا} [النساء: 29 - 30]، وهذا نص يتناول التسبب في قتل الإنسان نفسه أو نفس غيره.

وأمر النبي ﷺ بالتداوي، فقال: "تداووا، فإن الله لم يضع داء إلا وضع له دواء، غير داء واحد: الهرم". وهذا النص شامل لحال من وقع له المرض، ومن توفى المرض، لأن التداوي اكتساب للمناعة من المرض في الحالين.

والثاني: في وجوب التحفظ من الأمراض المعدية:

فرضت الشريعة توقي كل سبب يكون به انتشار المرض، وعليه تدل الآية المتقدمة.

كما ثبت في قواعد الشرع: "لا ضرر ولا ضرار". وهذا حديث عن النبي ﷺ. ومعنى قوله: (لا ضرر): أي لا يضر أحدٌ غيره، و(لا ضرار) لا يقابل من قصد إلى إضراره بمثل فعله. والمعنى: أنه لا يحل لمسلم أن يجلب ضرراً لآخر على أي حال.

وصح عن النبي ﷺ قال: "لا يُورد ممرضٌ على مُصِحِّ".

كما صح عنه أيضاً، قوله في الطاعون: "إذا سمعتم به بأرض، فلا تَقَدِّموا عليه، وإذا وقع بأرض وأنتم بها، فلا تخرجوا فراراً منه".

فإذا تقرر لأهل الاختصاص في الطب أن مرضاً ما معدٍ، والإصابة به ضرر كبير قد يؤدي إلى الموت، كما في الطاعون، فإن هذه الأدلة توجب الوقاية من هذا المرض بكل طريق ممكن، وحيث إن الأطباء ومن يقومون على رعاية المرضى والضعفاء لا يمكن أن يتركوا ما يلزمهم من وظيفة معالجة هذه الأمراض ومنع انتشارها، ففرض عليهم أن يأخذوا بمزيد التحوط من الإصابة بهذا النوع من الأمراض، فإنه مسؤولون عن رعاية من يشرفون عليه من المرضى، كما أنهم مسؤولون أن لا يكونوا سبباً لنقل المرض إلى الأصحاء من أهلهم وغيرهم.

وحيث إن اللقاحات المساعدة على الحماية من هذه الأمراض متاحة، فلا يسعهم شرعاً ترك أخذها لتحقيق هذه الغاية لأنفسهم ولغيرهم.

بل هذا حكم يتعدى من هم في الصف الأول للتعامل مع هذه الأمراض الخطيرة، ليستغرق جميع من يعيش في بيئة يوجد فيها ذلك المرض.

وبالنظر إلى مرض الكوفيد، فإنه وقد ثبتت شدة خطورته على الحياة والعافية، وأنه لم تسلم منه بيئة من البيئات في العالم، وأنه ثبت في العلم أن أخذ اللقاح يمنع من الإصابة به أو يحد منها، ويخفف من الآثار الناتجة عن هذا المرض، فإنه لا ينبغي لأحد أن يترك أخذه، ومن تساهل في ذلك وأصيب حتى هلك أو كان سبباً في الإضرار بغيره بإصابته بهذا المرض نتيجة لتفريطه، فإنه يتحمل وزر ذلك.

حكم إلزام الحكومات للعاملين في القطاع الصحي ورعاية المسنين بأخذ اللقاح:

بناء على ما تقدم بيانه، فهل للحكومة في أي بلد أن تلزم، وبخاصة من يعملون في القطاع الصحي أو رعاية الضعفاء والعجزة، أم أن تدخّل الحكومة في ذلك تحكّم في الحرية الشخصية للأفراد؟

للإجابة عن ذلك، لا بد من استحضار أن الحرية الشخصية من منظور شرعي، مكفولة لكل أحد، ولكنها تابعة للأمر الشرعي، بتعبير آخر: الحرية ليست مطلقة تعطي للإنسان اختيار ما يريد دون تبعات، وإنما هي مقيدة بالأوامر الشرعية، وبخاصة إذا كانت مرتبطة بالآخرين، فإن الأب لو فرط في النفقة على أولاده فقد ارتكب محرماً وعلى القاضي أن يجبره على النفقة، ولو اعتدى على آخر في نفسه أو بدنه أو ماله ارتكب محرماً، ووجب على من بيده السلطة أن يحاسبه ويأخذ منه الحق للمظلوم، والقوانين في كل الدنيا موضوعة للحد من مطلق الحريات، فلا يقود شخص سيارته دون رخصة قيادة، ولا يتجاوز الإشارة الحمراء، ولا يخرج عن السرعة المحددة بالقانون، وكل ذلك تقييد للحرية، لكنه تقييد بحق؛ لأن فيه اعتبار حفظ المصالح ودرء المفاسد، وبهذا جاءت تشريعات الإسلام.

فربنا تبارك وتعالى منحنا الحرية في السعي في الأرض واكتساب الرزق، لكنه رسم لنا خطوطاً نسير عليها، وبين لنا الحلال من الحرام، ومنعنا من التجاوز على حقوق الآخرين، وعلى نحو ذلك جرت فلسفة القوانين.

بل إن الله تعالى منعنا من التجاوز في المباح الذي منحنا فيه مطلق الحرية، كالطعام والشراب، فقال: ﴿وَكُلُوا وَاشْرَبُوا وَلَا تُسْرِفُوا إِنَّهُ لَا يُحِبُّ الْمُسْرِفِينَ﴾ [الأعراف: 31]، وذلك لأن الإسراف تجاوز، والتجاوز ضرر، فكيف بما يكون ضرراً متعدداً إلى الغير؟!

وقد جرى - بناء على ما تقدم - أن من حق الحاكم في الإسلام أن يحد من تصرفات الناس، ويتدخل بالتضييق فيما يعود إلى حرياتهم؛ حفظاً للنظام العام، ورعاية للحق العام، ومنعاً للضرر العام، ومن ذلك فرض بعض أنواع الضريبة في أموالهم لحماية البلاد وتوفير الخدمات الأساسية، وتسعير السلع والخدمات عندما يقع استغلال التجار واحتكارهم. كما أن من المعلوم في تصرفات القاضي: الحجر على السفه الذي يبده ماله في وجوه تضر بالمال، والتطبيق على الزوج، والإجبار على النفقة، والقضاء بالحضانة، إلى مسائل كثيرة، كلها تحد من الحريات الشخصية، ولكن لأسباب راجحة ومصالح يراها الحاكم معتبرة.

وعلى ذلك، فإن إلزام الحكومة في بريطانيا للعاملين في القطاع الصحي، ومن هم في شبه ميدانهم، كالمشرفين على رعاية المسنين والعجزة والأطفال، بأخذ اللقاح ضد مرض كوفيد، هو إلزام سليم يتفق من الأدلة والمقاصد الشرعية، والحكومة هي من عليه أن يقرر ذلك ما دام قد قطع أهل الاختصاص في الطب بضرورة أخذ اللقاح، وأنه لا يسد شيء مسدّه لتقليل المخاطر ومنع الضرر.

والله أعلم.

وكتب

أ. د. عبد الله بن يوسف الجديع

المستشار الشرعي لمسجد ليدز الكبير