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Omer H El-Hamdoon

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Islamic Philosophy of Pain and Suffering
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JBIMA Editorial

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

AssalamoAlaikom

The progress we have made in fighting the Covid-19 pandemic this year has been extraordinary, and it is good to see the vaccine working effectively. We're not out of the woods yet however as various strains emerge and Covid has not yet been eliminated. Having said that, we need to take a step back and ask ourselves what the world we live in is like, and what prospects does it hold for the future. Beyond the difficulties of Covid, there is a staggering level of death and destruction around the world for a variety of reasons, and as medical professionals, it is our duty to help the sick and needy. And whilst we cannot help everyone everywhere, there are ways for us to work together to assist those with no access to medical care.

Disasters in the Muslim world are ongoing. The latest news we are hearing in Afghanistan means that there will be an influx of Afghan refugees fleeing there sooner rather than later. But in the same way as other conflict ridden states like Syria, Yemen, Palestine, Somalia and Myanmar, not all the people there can flee. Those that cannot leave and therefore cannot access the healthcare in a more stable country have to be helped. It is encouraging to see that there are a number of NGOs who work closely with medical Islamic organisations to coordinate relief efforts on the ground. In the short term, pop-up clinics are formed and surgeons operate in makeshift field hospitals. These are generally in response to disasters that are ongoing or have just struck (an earthquake or Tsunami for example).

But in the long term there are genuine opportunities for medical relief efforts to be improved, and healthcare professionals should be at the forefront of these efforts. Doctors and NGOs should be advocating for capacity building and long term public health campaigns so even if disaster strikes, the mechanisms are in place for the public to be educated about issues such as vaccination for example. Disaster planning has to be professionalised, and healthcare professionals need to ensure that their work with medical NGOs is better coordinated too.

Doctors generally have good experience when working with others in their Multi-Disciplinary Team meetings; this should be replicated when working in the context of medical relief.

There is a real need for healthcare professionals to be proactive and work with said NGOs to advocate governments on the importance of stable healthcare systems and public health awareness and ensure that the latter is a staple in schools and universities too so that the next generation of citizens understands the importance of so many issues that we in the West may take for granted.

The lack of structure and opportunity for doctors to contribute to relief efforts has at times resulted in tragedy, with the example of the late Dr Abbas Khan in 2012, may Allah rest his soul, being one. He was detained, tortured and ultimately killed by the Syrian regime, though he had travelled to Syria on humanitarian grounds. Dr David Nott had better luck, but escaped by the skin of his teeth on more than one occasion in Aleppo which convinced him not to go back.

We at BIMA should be using our man power to help other organisations providing relief efforts on the ground. And whilst technology will never be a valid substitute for meeting patients face to face, we may not even need to be physically present in a disaster zone to be of benefit. Virtual consultations with refugees and online teaching for local doctors are innovative ways for us to provide help for those who need it. We should embrace these creative solutions whilst remembering that in many cases, it's the luck of where we were born that has resulted in us being in a privileged position and living in a stable area of the world. We must be thankful to Allah for that.

Wassalam

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Patient-Physician Relationships: Islamic views

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Abstract

With the rapid growth of the field of medicine to the modern era, commercialization and consumerism gave rise to an unhappy patient population. Some physicians see their patients as customers, and medicine is sometimes, turning into a market place. A good patient-physician relationship is linked to patients' satisfaction and treatment adherence, which ultimately leads to better outcomes.

Obtaining informed consent is the first step to proper communication respecting the patient's values. Protecting confidentiality and breaking bad news are among the most challenging tasks facing physicians. When treating a Muslim female patient, recognizing and understanding her concerns about modesty is invaluable. The Muslim doctor should be fluent with the Islamic teachings on practical daily issues faced in his/her practice. Building a fruitful physician-patient relationship is a vital part of successful medical care, and one of the most complicated professional responsibilities of the physicians.

Introduction

Over the years, the patient-physician relationship (PPR) has dramatically changed due to commercialization, quality of healthcare services offered in the government set-up, and privatization of the health sector. Doctors may, nowadays, ask for unnecessary investigations or may give over-prescriptions, just to be safe. There is also a remarkable decline in human touch or empathy; and a significant rise in unhealthy competition among doctors.¹

The ideal PPR has six components, namely voluntary choice, doctor's competence, good communication, continuity, doctor's empathy, and the absence of a conflict of interest. A poor PPR, on the other hand, has been proved to be a major hurdle for both doctors and patients. In the case of poor PPR, patients show poor

compliance with doctor's advice; they may practice doctor-shopping by frequently changing their doctors; remain anxious; may choose quacks or other non-scientific forms of treatment; and result in a significant increase in medical expenses.²

The first consultation with a patient is the beginning of a doctor-patient relationship. Hence it is of major importance to conduct this in a proper way. In the hospital ward, the PPR is far more complex, since many other people are involved when somebody is sick. These include patient's relatives and neighbors, nurses, technicians, social workers and administrators.³

Despite worldwide emphasis on the responsibility of physicians, teaching the art of physician-patient relationship has not yet been incorporated into the curriculum of many medical schools.⁴

Factors like poor communication skills of the doctors, doctors not listening to their patient's complaints, and a mismatch between the doctors' objectives and patients' expectations, have together created a wide gap in the PPR which caused a massive impact on the trust and bonding level between doctors and patients.⁵ Modern medical science is technology-based and there is investment behind the technology. Many doctors do not think of the low socioeconomic condition of their patients. The patients, therefore, think of the doctors as avaricious and hungry for money.⁶

Without a full understanding of the cultural background of the patient, it is impossible to build an effective relationship with the patient. The doctor must feel the distress of the patient and do his best to eradicate the disease the patient suffers from and not only the symptoms of the disease.

Over the years, the relationship between doctors and patients has evolved from a largely paternalistic model to a more interactive relationship. The principles of autonomy, beneficence, informed consent, patient's access to medical information, and medico-legal concerns all now influence the doctor-patient relationship.⁷ The UK General Medical Council published "What to expect from your doctor: a guide for patients". The guide is a provisional step trying to help patients getting the best outcome from the interaction with their physicians.⁸

Physician's manners in Islam

Medical practice is considered a sacred duty in Islam, and the physician is rewarded by God for his good work. Al Izz ibn Abdul Salam, a renowned Islamic jurist (d 660H/1243 CE) in his book "Qawa'id al Ahkam (Basics of Rulings)", said: "The aim of medicine, like the aim of Shari'ah (Islamic law), is to procure the maslaha (utility or benefit) of human beings, bringing safety and health to them and warding off the harm of injuries and ailments, as much as possible". He also said: "The aim of medicine is to preserve health; restore it when it is lost; remove ailment or reduce its effects. To reach that goal it may be essential to accept the lesser harm, in order to ward off a greater one; or lose a certain benefit to procure a greater one".⁹ This is a very pragmatic attitude, which is widely accepted, in Islamic jurisprudence, and it is frequently applied in daily practice in all fields including medicine.

The Quran and sayings of the Prophet Muhammad Peace Be Upon Him (PBUH) established morality and mode of conduct of physicians and surgeons. The Prophet gave

many rules regarding seeking remedy, and the importance of consent. The Islamic jurists required from the practitioner to be competent and obtain licensed to practice. He also should get the consent of the patient or his guardian if he is not competent, otherwise he would be liable.

The Quran and Sunna teach the Muslim physician the importance of possessing good "khuluq" (Manners) which incorporate mercy, patience, tolerance, kindness, and honesty, while avoiding pride, arrogance, and anger.¹⁰

One of the earliest and most thorough books on medical ethics is entitled "Adab al-Tabib" (Practical Ethics of the Physician) by Ishaq al-Ruhawi. Al-Ruhawi was a contemporary to Abu Bakr Al-Razi and lived in the second-half of the ninth century A.D. This book was translated to English by Martin Levey in 1967 (Transactions of the American Philosophical Society). Al-Ruhawi stated that the true physician is the one who fears God; the word fear here encloses love and respect. His conscience is his censor, and he is aware that God's eye is ever watching.

Al-Razi has also written a book fully devoted to medical ethics called "Akhlāq al-Tabib" (Medical Ethics). To establish such opinions in a well-organized book over a thousand years ago is quite significant. Besides, these ideas still maintain their validities nowadays and are laid down in several ethical codes of medicine.^{11,12}

Patients and students of medicine frequently complain about attending physicians who want to spend the minimal time with them and lack patience in answering their worries or queries. The physician should always be honest, benefit his or her patients, and speak kind words to others. The Sunnah warns against pride and arrogance, two major transgressions that have marked modern medicine. The Prophet (PBUH) said: "Allah will not look, on the Day of Resurrection, at a person who drags his *izār* (garment) [behind him] out of pride and arrogance."¹³

With the advancement of diagnostic medical technology, many modern physicians refer their patients for sophisticated investigations without even performing a physical examination, thus failing to treat the patient as human and instead treating the patient as a number or a disease to be dealt with as rapidly as possible. Many medical codes of ethics request that physicians waive their fees for poor patients. In reality, waivers are often granted to rich and powerful patients who could provide

physicians with societal benefits.¹⁰ The Prophet (PBUH) said: “Feed the hungry, visit the sick and set free the captives”.¹⁴ The medical profession is unique in that the client should not be denied the service even if he cannot afford the fee.

Empathy is the ability to understand an individual's subjective experience. It plays a major role in establishing a good physician-patient relationship.¹⁵ Enhancing a physician's empathy may be the key to attending to health-related religion and spirituality needs of the patients.¹⁶

The doctor should always honor the high standards of his profession and hold it in the highest regard, never prescribing to activities of propaganda, or receiving a commission or similar misdoings. It is imperative for a Muslim doctor to always remember the Prophet Muhammad saying: “The best among you are those who have the best manners and character”.¹⁷

The Holy Qur'an and Hadiths of the Prophet Muhammad are full of verses and sayings of the Prophet enjoining doing good and refraining from doing harm.¹⁸ The Qur'an says: “So whosoever does good equal to the weight of an atom (or a small ant), shall see it. And whosoever does evil equal to the weight of an atom (or a small ant), shall see it.”¹⁹

If medical necessity or emergency puts a needy person under his care, the Doctor should be considerate and kind, and avoid his fees if any being a further burden atop of the ailment. For as you give the poor it is God you are giving and alms giving is not only due on material possessions but on knowledge and skills too. The sphere of a Doctor's charity, nicety, patience and tolerance should be large enough to encompass the patient's relatives, friends and those who care for or worry about him but without of course compromising the dictates of "Professional Secrecy".^{20,21} He should avoid wrongdoing, not abusing his/her stat for monetary gain, and not misleading his/her patient because God does not love the liars and wrongdoers.²² The Prophet (PBUH) said: “Those who have a perfect faith are those who have the best character”.²³ Islamic ethics instructs human beings not only to be virtuous, but also to contribute to the moral health of society. The Qur'an says “You enjoin what is right and forbid what is wrong”.²⁴ The character of the Muslim is exemplified in a verse of the Holy Qur'an saying: (“Indeed, Allah orders justice and good conduct” ... and “forbids immorality and bad conduct and oppression”).²⁵ The characteristic features of a virtuous physician are firmly rooted in the Qur'an and the Sunna.

Patient's family

One major factor that must be considered in the care of Muslim patients is the importance of the family. Visiting family and friends in the hospital is extremely important in Islam. Muslims are required to visit those who are sick or injured and provide patients and their families with comfort and support. The teachings of Islam dictate that Muslims not only meet with those who are ill but also converse with them, provide words of encouragement, and pray for their well-being and prompt recovery. This important obligation is vital to the care of Muslim patients, and measures should be taken to accommodate these visitations.^{26,27} However, it is important to recognize that these events may provide additional stress to the nursing staff or adjacent patients sharing semiprivate rooms.²¹

Informed Consent

Obtaining patient's permission prior to delivering medical treatment is obligatory in Islam if the patient has full legal capacity, or their legal guardian if the patient is a minor. This is only if the treatment prescribed is permissible. However, according to the International Fiqh Academy (1992), consent is not required if the treatment and the medical procedures are needed in emergency to save a life, or organs, when the patient is unconscious or a minor, and no guardian is available, or in cases of contagious diseases and preventive immunizations ordered by the health authorities. Similarly, consent is not required if a minor's legal guardian refuses to give permission and it is clearly detrimental to the patient under his/ her guardianship. While this may be different to the conventional law in medical practices, it is derived from the principles of fiqh (Islamic Law), “harm should not be inflicted nor reciprocated” (laadhararawalaadhiraar), and “public interest should be prioritized over personal interest” (al-maslahah al-'am tuqaddam' alaa al-maslahah al-khassah). Hence, refraining from treatment is an act of misconduct if the treatment is obligated, and preventing misconduct is an obligation upon all Muslims.^{28,29}

Dress code

The Qur'an tells both men and women to ‘lower their gaze and guard their modesty’ and further addresses women to ‘not display their beauty and ornaments except what (must ordinarily) appear thereof.’³⁰ Muslim women often choose to cover their hair with a scarf called a hijab, and it is essential that physicians respect this

decision and allow them to do so whenever possible. For example, even when going to the operating room for surgery, it is preferable to allow a Muslim woman to wear her hijab in addition to the hospital gown. If this is

Hospital staff could offer to keep the curtains drawn, or the door closed. Another effective way is a 'knock, wait, enter' policy by which staff knock, wait for permission and then enter patient rooms. It must be stressed that the clinician uncover only that part of the body that needs to be examined, and cover those that are not part of the exam or have been examined already.³¹

Avoiding unnecessary exposure is an important priority. Muslim women are encouraged to wear loose fitting clothing that can be stretched to allow adequate exposure for examination while maintaining as much coverage as possible. Although a patient may be unconscious, covering the genital area in the operating room with a surgical towel during skin preparation is also encouraged and conveys an additional element of trust between the patient and the surgeon.^{21,26}

Physical contact between the sexes

"Khalwah" is defined as the situation where a 'man and a woman are both located in a closed place alone and where sexual intercourse between them can occur'. This situation is prohibited between non-mahram (a very close relative or husband) adult members of opposite sexes in order to prevent the accusation, and committal of, illicit relations.

Most Islamic scholars believe that a patient seeking non urgent treatment should choose a physician according to the following order of decreasing preference: Muslim of the same gender, non-Muslim of the same gender, Muslim of the opposite gender, non-Muslim of the opposite gender. For a Muslim woman, it could be very stressful to expose her body in front of a male physician, or even to discuss with him sensitive issues related to her health. It is quite common for the husband to ask to stay with his wife during a physical examination. Having a female nurse available for examinations may help a Muslim woman to feel more comfortable, and is mandatory in all countries in the world.^{21,29}

Islamic law does allow for deviation from normal regulations in cases of need and emergency.

All Muslim scholars state that necessity allows things that are ordinarily forbidden to be permissible. Ibn Qudama, a renowned Hanbali scholar, writes: "It is permissible for the male doctor to inspect whatever parts

not permitted, using a surgical head and neck covering can allow a woman to maintain her sense of comfort and dignity without compromising hospital and operating room policy.²⁶

of the woman's body that the medical examination warrants." Ibn Muflih, also of the Hanbali school state: "if a woman is sick and no female doctor is available, a male doctor may treat her. In such a case, the doctor is permitted to examine her, including her genitals." Scholars are also clear that female doctors may fully examine male patients in cases of necessity. In all cases, a third party of the same gender as the patient is required to be present for the examination.^{29,32} Physical contact outside of the examination should always be approached with caution. Understanding a Muslim woman concerns about modesty is invaluable in developing appropriate physician-patient relationship.

Confidentiality

Breach of confidentiality under certain conditions is justifiable in Islam. Examples include reporting, to the assigned authorities, probable criminal acts (such as domestic violence or child abuse), serious communicable diseases or circumstances, which pose a threat to others' lives (such as an epileptic patient working as a driver), notification of births and deaths, medical errors, and drug side effects. If the patient agrees to disclose the complexity of his medical condition to the family, then there is no breaking of confidentiality. If a consort has an HIV infection, then the physician's duty is to inform the other consort of the true diagnosis. The doctor should take the permission from the infected person, or ask him to tell his consort, in his presence, the true diagnosis.²⁹ In a fatwa issued by the International Islamic Fiqh Academy in 1993, jurists affirmed that a breach of confidentiality can be acceptable only if the harm of maintaining confidentiality overrides its benefits. The fatwa describes some situations in which breaching confidentiality is allowed, or mandatory.³³ "Such cases are of 2 categories: a) Cases where confidentiality must be broken on grounds of the rational of committing a lesser evil and obviating the greater one, and the rational of seeing to a public interest, which favor enduring individual harm so as to prevent public harm if needed. These include 2 sets: Those which involve protecting society against some prejudice, and those which involve protecting an individual against some prejudice. b) Cases where confidentiality may be broken: 1) To ensure a public interest. 2) To prevent a public damage. In all such cases the objectives and priorities are set out by Shari'ah (Islamic law) regarding preserving the faith, human life, reason, descendants, and wealth".^{34,35}

Breaking bad news

Healthcare workers in Muslim communities are required to modify the Western-based recommendations to match the culture of their patients and their families.³⁶ Several problems arise when physicians break bad news; some of which are specific to Muslim countries. Breaking bad news would ideally require lengthy preparation and adequate time. However, due to patient overload, time is a luxury many physicians in Muslim countries do not possess. Besides, physicians in Muslim countries require culture-specific training to break bad news and this is not currently incorporated in the medical curriculum in the majority of developing countries.³⁷ Junior doctors usually spend more time with their patients than their senior colleagues. Because of their limited clinical experience, junior doctors may have an unjustifiable level of conviction about a patient's imminent death. They have not seen yet the patients recovering from a situation where death seemed to be inevitable.³⁸

Physicians working in Muslim communities are required to balance between the patient's rights to be informed (autonomy) and the relative's request to avoid emotional distress to the patient, and thus define the magnitude of bad news that the patient desires to know and act accordingly.³⁷

During the meeting he should pay special attention to the body language of the patient and his/her family. Is the patient afraid, stressed, or at ease? Does the patient have a religious background? In patients who have strong religious views, physicians should stress the positive and optimistic religious statements such as, "Everything is in the hands of God".

Asking for advice

Sometimes the patient may say to his doctor: "What is your advice in my condition? What would you do if your parent was in my situation? The physician may feel embarrassed, but he/she should be honest and give the sincere advice. The matter may be more complicated when the patient relegates the decision-making to the doctor saying: "Look I have trust in you, and whatever you decide I will accept." The physician should be tactful and try to explain the situation and give information to the patient and/or his family, and reach with them the course to be taken. As far as he can make it, the physician should explain that the decision should be in the hands of the patient and his family. He might help by giving all the required data, and give his personal advice.²¹

In cases where the patient does not want to know the diagnosis, the physician should discuss the condition fully with the family, and let them try to persuade the patient, at least to take part in the decision-making. In patients who prefer a non-disclosure approach, physicians are encouraged to stress a paternalistic approach such as; "Don't worry, I will do everything possible to improve your health" or "You're in good hands."³⁶

The question of confidentiality will crop up here, if the family gets to know the details of the ailment and its management. If the patient agrees to divulge the intricacies of his medical condition to the family or proxy, then there is no breaking of confidentiality, as it is done after getting the consent of the patient himself.²⁹

Conclusion

Medical practice is considered a sacred duty in Islam and the physician is rewarded by God for his proper work. Despite the efforts of many medical universities to reform their medical curriculums and implement communication skills, it seems that many doctors do not appear to build effective relationships with their patients. Some doctors are reluctant to improve communication, which is one of the crucial elements of treatment. The only and sole interest the doctor should consider, is the best interest of his/her patient. The importance of the intimate personal relationship between the physician and the patient cannot be over emphasized.

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The Beginning of Life and Abortion

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All praise be to Allah, and may His blessings and peace be upon His messenger.

There are many interfaces between *fiqh* (Islamic jurisprudence) and medicine. After all, the subject-matter of medicine is the human body, which is tasked with religious duties. The rulings of those duties are the subject matter of *fiqh*. *Fiqh* also regulates all human activities of moral value, including the practice of medicine.

Change in the medical field happened quite slowly until the early part of the 20th century, when the pace of advancement began to accelerate until medicine reached its current state of development. Our early scholars of *fiqh* – may Allah have mercy upon them – did not have access to the medical knowledge that we now have. Many *fiqh* rulings rely on the proper knowledge of certain ontological facts, about many of which the physicians of their times differed. These include, for instance, determining the shortest and longest duration of menstruation and pregnancy, the status of intersex persons (hermaphrodites), and the various portals of entry into the “hollow interior” or cavity of the body (*jawf*), are all legally consequential matters that are largely reliant on medical expertise rather than on decisive scriptural proofs.

Thankfully, much of today’s current medical knowledge and practice is based on experiment and certainty, not on doubt and conjecture. Thus, it is vital to revise any traditional *fiqhi* positions that had been influenced by outdated medical knowledge. Indeed, such critical but respectful revision is crucial to exonerate the Sharia (Islamic law) without impugning the tradition¹. Sunni Muslims do not ignore mental axioms (universally accepted propositions) and neither do they ignore the empirical evidence perceptible by the senses.¹ In fact, scholars of all orientations, including textualists and rationalists, reinterpret the apparent implications of the

text when such realities contradict the apparent or primary interpretation; they use axioms as well as empirical evidence in judging the authenticity of transmitted reports.² Additionally, the fatwa (edict by a scholar) – but not the *hukm* (Allah’s ruling) – may change from time to time and from place to place according to certain guidelines known to those who are well grounded in such knowledge.² That is, not by the mere change of time and place, but rather because they are vehicles for the circumstantial variables that would result in the change of a fatwa. For instance, the establishment of paternity through DNA testing should now take precedence over *qiyâfah* (physiognomy).

One of the issues being revisited is the ruling of abortion based on our better understanding of embryogenesis. It must be remembered, however, that the *illah* (*ratio legis/ juris* or legal basis) of the emphatic prohibition of abortion in late term pregnancy is dependent not only on embryogenesis, but on the transcendent or metaphysical event of “ensoulment.” Here is a brief discussion of this issue in light of up-to-date medical knowledge. I begin with the rulings on abortion found in the tradition, according to each of the four major Sunni schools of Islamic thought (*madhâhib*, sg. *madh-hab*).

The Hanafi position

The authorized position among the majority of traditional Hanafî authorities is arguably the permissibility of abortion before 120 days from conception.⁴ Ibn al-Humâm (rA: *rahimahu Allâh* – may Allah have mercy on him) opined,

Is it *mubâh* (permissible) to abort after impregnation? It is permissible so long as no [external] features have developed in [the fetus]. And in multiple places, they said: That does not take place until after the 120th day, and this means that by “developing features,” they meant ensoulment (the moment when a human being gains a

soul). Otherwise, this would be incorrect because the development of physical features is observable before that period.⁵

To those who took this position, the husband's consent was not even required, as Ibn 'Âbideen confirmed in his statement, "And they viewed that it was *mubâh* to abort a child before four months, even without the husband's consent."⁶ However, the Ḥanafis are not all in agreement on the permissibility of abortion. Ibn 'Âbideen (rA) cites the author of *al-Khâniyah* (rA) as saying, "I do not hold that it is lawful, since someone in *ihrâm* (state of sacred dedication) – if he breaks an egg of a gamebird – is liable for it because it is the origin of a game animal. So, if he is obliged to expiate in that scenario, then it should be sinful if she [the mother] aborts without an excuse."⁷

Perhaps this disagreement within the *madhhab* is what drove some to reconcile between the positions by saying that the view of permissibility referred to special cases. For instance, Ibn Wahbân (rA), whom Ibn 'Âbideen cited as saying, "The permissibility of abortion is understood to be in reference to cases involving excuse (justification of need) or that it does not incur the sin of murder [but a lesser sin]."⁸ This seems more plausible, because leaving the permissibility unrestricted to include aborting a fetus after its 100th day, which by then has a beating heart, a cerebellum, a face with a recognizably human profile, two feet, two hands, and a trunk, without any justification, is something the spirit of the revelation would not accept. However, projecting our sensibilities onto the foremost scholars in order to reinterpret their unqualified statements is not without risks. Additionally, when we limit the "need" to extreme cases, we would be in defiance of their intent when they left both the permissibility and the "need/excuse" unqualified.

The Mâliki position

The Mâlikis hold that the fetus cannot be aborted in any of its phases, and they are the strictest *madhhab* in this regard. Al-Dardeer (rA) stated, "And it is impermissible to expel the semen that is gathered in the womb, even before forty days. And once the soul is blown into it, it becomes unlawful by unanimous agreement."⁹

In fact, the Mâlikis went even further than this. They prohibited taking medicines that reduce one's potential for progeny. Regarding this, al-Hattâb (rA) cites al-Juzooli's statement, "It is impermissible for a person to drink medicine that lessens his progeny."¹⁰ Few Mâlikis disagreed with this view. One such was al-Lakhmi (rA),

who supported the permissibility of aborting during the *nutfah* (drop of fluid) phase, but not thereafter.

The Shâfi'i position

Al-Ramli (rA) said about abortion, "And the stronger position is it being unlawful in all cases following ensoulment, and its permissibility before that."³ The disagreement was reported by al-Dimyâti (rA) in *I 'ânat al-Tâlibeen* as follows:

Al-Bujayrami precisely said, "They disagreed over the permissibility of causing the expulsion of the *nutfah* after it has settled in the womb." Abu Ishâq al-Marwazi said, "It is permissible to expel the *nutfah* and '*alaqah*,'" and that [view] has been reported about Abu Ḥaneefah. And in *al-Ihyâ'*, under the discussion on '*azl* (coitus interruptus), is what indicates its unlawfulness. This [opinion] is stronger because once it [the *nutfah*] settles, its outcome will be the genesis which prepares it for ensoulment, unlike '*azl*... And the authorized position is that it [abortion] is not forbidden until after ensoulment."¹²

The official position in the *madhhab* is arguably that of permissibility, as was established by al-Qalyubi (rA) in his *Hâshiyah*, where he wrote, "Yes, it is permissible to expel it, even by way of medicine, before ensoulment, contrary to [the view of] al-Ghazâli."¹³

The Hanbali position

Al-Mardâwi (rA) presented the Ḥanbali views on abortion, beginning with the authorized position of the *madhhab*, which is to them the permissibility of aborting the *nutfah* during the first 40 days. Then he mentioned the two other positions: the one that prohibits abortion altogether and the one that permits it before ensoulment. He explained, "It is permissible to drink medicine to abort the *nutfah*. This was stated in *al-Wajeez* and before that in *al-Furoo* ' Ibn al-Jawzi said in *Ahkâm an-Nisâ'*, 'It is unlawful.' In *al-Furoo* ', he said, 'The apparent words of Ibn 'Aqeel in *al-Funoon* are that it is permissible to abort it before ensoulment.' He said, 'This is a variant [i.e., not the dominant] view.' Taqi al-Deen [Ibn Taymiyyah] said, 'It is safer that the woman does not use medicine which prevents the semen from entering the cervix.'¹⁴

Some scholars believed that Ibn Qudâmah (rA) leaned toward the position of impermissibility, since he stated, "If the pregnant woman drinks medicine, and expels a fetus using it, then the *ghurrah* is incumbent upon her and she does not inherit anything from it. She must also

free a slave, and there is no disagreement which we know of between the scholars on this statement, except the position of those who do not believe it is mandatory to free a slave.¹⁵

Perhaps what those scholars posited regarding Ibn Qudāmah's view is inaccurate, because we find him stating, "There is no disagreement which we know of between the scholars." This proves that he was explaining the position on the abortion that is unlawful according to all scholars (i.e., post-ensoulment).

In summary, the scholars unanimously agree on the prohibition of abortion after ensoulment,¹⁶ except if it poses risk to the mother's life, in which case it is permissible according to the stronger view. They also agree that ensoulment takes place after 120 days. Aside from that, their differences fall into three main views:

1. It is unlawful to abort in all phases, and this is the authorized position of the Mālikis and Dhāhiris. It is also the position of some Ḥanafis, Shāfi 'is, and Ḥanbalis.
2. It is unlawful to abort after the first 40 days, and it is permissible during them. This is the authorized position of the Ḥanbalis and the position of some Mālikis.
3. It is unlawful to abort after ensoulment, and it is permissible before that. This is arguably the authorized position of the Ḥanafis and Shāfi 'is. It is also the position of some Ḥanbalis.

The positions of contemporary Sunni scholars

Modern-day scholars and *fiqh* bodies do tend to concur with the authorized Ḥanbali position, albeit with emphasis on the requirement of some sound motive for abortion in the first 40 days. They largely do not consider the fear from poverty to be a sound justification. They also all agree on the impermissibility of abortion after 120 days, when it becomes an act of murder unless the mother's life or health are in real danger. As for the period between those two terms, they differ on whether it may be permitted to abort for a very significant cause. For instance, the Fiqh Assembly of the Muslim World League has permitted abortion during this intermediate term when there is a major fetal deformity incompatible with dignified life.¹⁷ This category certainly does not include the mere absence of some of the limbs or senses. According to some scholars, instances of rape may be

considered a justification during this period of 41 to 120 days.

Has our new understanding of embryogenesis affected our choices with respect to rulings on abortion? It is possible. We have observed that modern scholars tend to be more conservative in this respect. However, the issue is not that simple. We should not rush to think that our traditional scholars did not observe the obvious features of a human embryo aborted before 120 days from conception. As we have shown from the statement of Ibn al-Humâm (rA), at least some of them did observe that. It is also obvious that, regardless of their positions on the ruling of abortion, they all agreed that ensoulment takes place at 120 days post-conception. Those scholars also all agreed that abortion after ensoulment would be graver, equating it in some regards to murder. Much, then, depends on ensoulment, and that in turn depends on their understanding of a particular hadith. So, let us briefly discuss the issue of ensoulment and the controversy around this hadith.

Ensoulment and the beginning of human life

Ensoulment (*nafkh al-rooh*), which is sometimes referred to as personhood, is an event that takes place in the womb at a particular moment, according to the confirmed consensus of all Muslim scholars and the definitive implications of the prophetic traditions. According to another consensus, reported by al-Qurtūbi, al-Nawawi, and Ibn Ḥajar, the soul is breathed into the body after 120 days post-conception.¹⁸

However, the latter consensus is not as credible as the former, and some of the contemporary scholars claim it is not verifiable. The basis of this consensus is the following hadith of Ibn Mas'ood (rAa: *raḍiyaAllāhu 'anhu* – may Allah be pleased with him) that was reported in various wordings. In al-Bukhari's version, the hadith goes as follows:

«إِن خَلَقَ أَحَدِكُمْ يُجْمَعُ فِي بَطْنِ أُمِّهِ أَرْبَعِينَ يَوْمًا وَأَرْبَعِينَ لَيْلَةً، ثُمَّ يَكُونُ عَلَقَةً مِثْلَهُ، ثُمَّ يَكُونُ مُضْغَةً مِثْلَهُ، ثُمَّ يَبْعَثُ إِلَيْهِ الْمَلَكُ، فَيُؤَدِّنُ بِأَرْبَعِ كَلِمَاتٍ، فَيَكْتُبُ رِزْقَهُ وَأَجَلَهُ وَعَمَلَهُ وَشَقِيَّ أَمْ سَعِيدٍ، ثُمَّ يَنْفُخُ فِيهِ الرُّوحَ...».

Each of you is gathered in his mother's womb for forty days, then becomes a clot of blood (*alaqah*) for the same period; then it becomes a clump of flesh (*mudghah*) for the same period. Then the angel will be sent to it and will be commanded regarding four matters: he will record its livelihood, its span of life, and its felicity or damnation

[in the afterlife]. Then he will breathe the spirit/soul into it...

The vast majority of scholars understood this to mean that the *nutfah* (drop) phase will last for 40 days, followed by *'alaqah* (clot of blood) for 40 days, then *mudghah* (clump of flesh) for 40 days, then the blowing of the soul (*nafkh al-rooh*) takes place at 120 days.

In Muslim's report of this hadith, however, it says, "then becomes a clot in this for an equal period." The deictic phrase "in this" should refer here to the forty-day period itself, because "40 days" was the last semantic element mentioned before the deictic. This leads to the understanding that all of the three stages of the drop of fluid (*nutfah*), clot of blood (*'alaqah*), and clump of flesh (*mudghah*) occur in that very period of the first forty days. These three stages together may also not take the entire span of the 40 days.

Advances in medical sciences supported an earlier understanding by some scholars, such as Ibn al-Zamlakâni (rA) from the 7th – 8th century AH, that the three phases of embryogenesis mentioned in the prophetic traditions are completed by the fortieth or forty-second day after conception. After all, since the 20th century we have known that the first heartbeat happens about 21 – 24 days post-conception.¹⁹

The minority position of Ibn al-Zamlakâni is also supported by the following hadith reported by Muslim from Hudhyfah (rAa):

«إِذَا مَرَّ بِالنُّطْفَةِ اثْنَتَانِ وَأَرْبَعُونَ لَيْلَةً بَعَثَ اللَّهُ إِلَيْهَا مَلَكًا فَصَوَّرَهَا وَخَلَقَ سَمْعَهَا وَبَصَرَهَا وَجِلْدَهَا وَلَحْمَهَا وَعِظَامَهَا ثُمَّ قَالَ يَا رَبِّ أذكرُ أَمْ أَنثَى فَيَقْضِي رَبُّكَ مَا شَاءَ وَيَكْتُبُ الْمَلِكُ ثُمَّ يَقُولُ يَا رَبِّ أَجَلُهُ فَيَقُولُ رَبُّكَ مَا شَاءَ وَيَكْتُبُ الْمَلِكُ ثُمَّ يَقُولُ يَا رَبِّ رِزْقُهُ فَيَقْضِي رَبُّكَ مَا شَاءَ وَيَكْتُبُ الْمَلِكُ ثُمَّ يَخْرُجُ الْمَلِكُ بِالصَّحِيفَةِ فِي يَدِهِ فَلَا يَرِيدُ عَلَى مَا أَمَرَ وَلَا يَنْفُسُ»

When the *nutfah* has attained forty-two nights, Allah sends the angel and gives it shape. Then He creates its sense of hearing, sense of sight, skin, flesh, and bones. Then [the angel] asks, "My Lord, would it be male or female?" And your Lord decides as He desires and the angel then records that also and then asks, "My Lord, what about its lifespan?" And your Lord decides as He wishes, and the angel records it. Then [the angel] asks, "My Lord, what about its livelihood?" So, your Lord decides as He likes, and the angel writes it down; then the angel leaves [the womb] with the scroll of destiny in

his hand and nothing is added to it, and nothing is subtracted from it.

This position is also supported by Allah's statement,

(ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ فَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ.)

[Then We made the sperm-drop into a clinging clot, and We made the clot into a lump [of flesh], and We made [from] the lump, bones, and We covered the bones with flesh; then We developed it into another creation. So blessed is Allah, the best of creators.) [Sūrat al-Mu'minūn, 23:12-14.]

The development "into another creation" mentioned in this verse is reported by 'Ali (rAa) to be a reference to the ensoulment – an interpretation that is widely accepted. In the verse the clump of flesh (*mudghah*) and the ensoulment are separated by two other developments: the formation of bones and their envelopment by flesh. This is contrary to what the majority understood from the hadith of Ibn Mas'ood stating that ensoulment happens right after the end of the *mudghah* phase.

It is thus clear that much of the process of embryogenesis (*takhalluq*) takes place within the first forty days from conception. This knowledge has caused many contemporary scholars to question not only the traditional understanding of embryogenesis based on the hadith of Ibn Mas'ood, but also the consequent position that ensoulment takes place at 120 days. While I agree with their first conclusion, I am not compelled to agree with the second.

The consensus on the blowing of the soul, while it is *sukooti* (tacit) and therefore not *qat'i* (definitive), should be at least treated as a speculative proof that should not be dismissed unless it is outweighed by a stronger one. This is one of many positions concerning this type of consensus, but it is the position closest to the middle of the spectrum on this issue. We must also remember that a definitive positive consensus after the era of the Companions is implausible. We also know that consensus is an independent source of Sharia, thus textual substantiation is not needed to cite it as a proof. Nevertheless, according to the majority position consensus would not happen without some textual proof. This proof, however, may be known to some scholars but not to others,²⁰ and it may even be known to some generations but not to others.²¹

Here are additional reasons why this consensus and the 120-day mark should still be respected:

The lag between *takhalluq* and *nafkh al-rooh* is established in the scriptures. The Arabic article *thumma* (then), used in the hadiths above to separate between the stages of development and ensoulment, means that the events occur in succession, with some delay in time between them. Moreover, in the verse cited above from Sūrat al-Mu'minūn, *thumma* is used to separate between the different stages of embryogenesis, and between embryogenesis and ensoulment. In addition, the formation of bones and their envelopment by flesh is mentioned between the first three stages of development and the reference to ensoulment. We showed earlier that observant scholar like Ibn al-Humâm pointed out the lag between embryogenesis and ensoulment.

Moreover, while ensoulment is a *ghaybi* (transcendent or metaphysical) event, there may be medical signs corroborating the reported consensus of the scholars that it takes place at 120 days post-conception. The legal debate over abortion and personhood has caused many disputants to invoke certain events in fetal development to support their various positions. Some hold that personhood starts from fertilization, which is when the paternal and maternal genetic codes combine to form a unique cell. Others posit that it starts upon implantation, which happens about 1-2 weeks from fertilization,²² about the time the cell cannot divide anymore to produce twins.²³ Others argue that it should begin with the first heartbeat, which happens about 21-24 days post-conception.²⁴

Still others contend that it should start with the first voluntary movements, which take place around 120 days post-conception.²⁵ Shortly thereafter, around the end of the twentieth week, the thalamus develops, and that is the region of complex thought.²⁶ This is also the lowest age for independent fetal viability outside the uterus.²⁷ If the soul departs from the body when that body is no longer able to host it, should it not also be true that the soul would not be blown into the body until that body is able to host it?

From this discussion, one may argue that the blowing of the soul into the fetus indeed occurs well after the completion of embryogenesis. The 120th day of post-conceptual age is still the threshold of ensoulment that is most rational and that engenders the most widespread agreement amongst the scholars.

Allah knows best.

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Concept of Healthcare: A Divine approach and a Contemporary View

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Abstract

Health has been defined in many ways and in recent years, various healthcare models have been proposed. Muslims believe that the Qur'an is an immutable divine book revealed to the Prophet Muhammad more than fourteen hundred years ago. The Qur'an claims that there is cure in it for the believers and often encourages readers to reflect upon and ponder its verses to understand the true meaning. The Arabic word used for cure, wellbeing and health in the Qur'an is "shifa", and the word used for sickness and disease is "marad". The use of these words has been subject to numerous linguistic and metaphorical interpretations, which have varied depending upon the background and knowledge of the readers, as well as the time and place in which they lived. This narrative study reflects upon the concepts of health and diseases outlined in verses of the Qur'an and examines their relationship to contemporary medical knowledge. This divine healthcare model requires further research about its applicability according to the contemporary knowledge of healthcare delivery system.

Introduction

In 1946, the World Health Organisation (WHO) defined health as a state of complete physical, mental, and social well-being and not merely the absence of disease (1946). That was a ground-breaking formulation for the time. The 1986 Ottawa Charter adapted this definition to describe health as: "a resource for everyday life, not the object of living". The definition emphasizes social and personal resources as well as physical capacities". In 2005, the WHO defined the term "health promotion" as "the process of enabling people to increase control over their health and its determinants, and thereby improve their health" (2)

In effect, health is described as a resource that supports an individual's function in society. Physical and mental health are the most discussed components of overall health, however, spiritual health, emotional health, and financial health also play an important role, and have

been linked to mental and physical well-being. There have been criticisms on the definitions of health provided by the World Health Organisation and questions remain as how one shall define health. Among various popular models of health care like WHO model, medical model, wellness model and environmental model, question remains as which one to adopt. (3-6)

Muslims believe that the Qur'an is an immutable divine book that was revealed to the Prophet Muhammad (PUH) in 610 AD over a period of 23 years, when the Prophet was 40 years old. The Qur'an provides explicit guidance to Muslims with regards to how to live their life and provides guidance about health. The original Qur'an was in the Arabic language as stated in the book in verses 41:44 and 20:112, however, there are now numerous translations of the Qur'an in most of the major languages of the world, and much of the original meaning may not be available to those who read the Qur'an in translation.

When translated, it ceases to be “God’s very own words” and simply becomes an interpretation of the Arabic original. This includes the word “*shifa*” used in the Qur’an for health and well-being and the word “*marad*” used for illness and disease.

This narrative study therefore aims to identify verses in the Qur’an relating to health and well-being, outline interpretations of these verses, and evaluate the guidance given in the Qur’an against current medical literature.

Method

All instances of the root words “*shifa*” and “*marad*” were retrieved through a search of the Quranic Arabic Corpus (7). The contents of all relevant verses were confirmed using 2 copies of the Qur’an, a physical copy of the Noble Quran (8) and an online copy available on Quran.com (7). Both versions utilised an English translation of the Qur’an produced by the same scholar. The key contents of the verses providing guidance on matters of health were extracted, tabulated, and analysed.

Results

In total, the Qur’an has 6,236 verses in 114 chapters (surahs). The trilateral root *shūfāyā* (شفي) occurs six times in the Quran, in two derived forms: twice as the verb *yashfi* (يشفي) in verse 9:14 and 26:80 and four times as the noun *shifā* (شفاء) in 16:69, 17:82, 10:57 and 41:44. (table 1). These verses have been described below:

The **verse 9:14**, is in relation to story of a tribe, Bani Khuzaaah, at the time of the “opening of the Makkah”. This verse states that believers among the Prophet’s companions would have their hearts healed by God following their anger and disappointment after a war.

The **verse 10:57**, describes that God sent the Qur’an as a remedy for ignorance and for spiritual ailments such as vile faiths, doubt, superstitions, wickedness, and anxiety. The effect of healing is in the form of calmness.

The **verse 16:69**, discusses the honeybee which produces honey, and indicates that honey contains a cure for mankind. It proposes a cure for physical diseases.

The **verse 17:82**, refers to the Qur’an as a remedy for all ailments to believers, but describes that it provides no benefit for non-believers because it contains rules of life, prohibition, reminders, past, present and future stories and God promises about life hereafter.

The **verse 41:44**, describes the Qur’an as a form of guidance and cure for the believers who understand its meaning, and that it provides remedies for spiritual ailments. It states that for those who do not believe, there is deafness in their ears, and for them it is blindness to its message. Belief in this book as the divine words of God is the key element.

The **verse 26:80**, describes the story of the Prophet Ibrahim when he fell sick; he prayed to God and had full belief that God has the absolute power of healing. The verse places more emphasis on the word “*mard*”.

The trilateral root word “*mīmrāqād*” (م ر ض) occurs 24 times in the Quran, in three derived forms: once as the verb *marīd* (مرض), 13 times as the noun *marad* (مَرَض), and 10 times as the noun *marīd* (مَرِيض). The word “*mard*” is sometimes used in the Qur’an to convey the literal meaning of physical illness, while at other times, it is used in a metaphorical sense. It has been translated as “sickness”, “ill”, and “disease”. (table 2).

Discussion

The linguistic meaning of the Arabic word “*shifa*” is “cure and well-being”. The interpretation of this word is based on the background, knowledge, and skill of the author as well as the time and place in which they lived. The Qur’an refers to itself as a cure (*shifā*) for diseases of the hearts (verse 10:57, 9:125). There is a lot of emphasis in the Qur’an on moral and spiritual illness rather than physical illness. However, the verse 26:80 uses the word “*mard*”, and explicitly refers to physical ailment and soundness; the prophet Ibrahim prayed to God with the full belief that God has the absolute power of healing.

The active participle “*marīd*” (sick person) occurs five times (2:184, 185, 196; 24:61; 48:17), as does its plural form “*marādā*” (4:43, 102; 5:6; 9:91; 73:20). The Qur’an usually refers to the “sick person” (*marīd*) when describing the performance of some religious duties. In that context, the sickness is described as a valid excuse not to perform those rituals and duties and carry out the alternatives which have been prescribed as well. These include exemptions from the obligatory day time fasting in the month of Ramadan: verse 2:184–185, men shaving their scalp hairs after the Haj: verse 2:196, abstinence to go for the “Jihad” (fighting in the path of Islam): verse 8:17, and avoiding water to use for the bathing and ablution (*wudhu*) for cleansing and purification: verse 4:43 and 5:6.

The Qur'an does not describe the exact methods of treatment of disease in detail but provides guidance and principles as how to remain well. There are numerous verses which are relevant to the concept of health or provide guidance with regards to living a healthy lifestyle. The overall emphasis is more on the preventative aspects of the diseases at individual and at a society level.

Food and nutrition are important part of health and healthy lifestyle. In many verses, the Qur'an describes various types of food that people should consume to enjoy life and good health (verses 2:168, 23:51, 5:88, 2:57, 7:160, 6:118, 5:87, 16:114, 7:157). There are many verses where the Qur'an describes the permissibility of various food including meat, fish, milk (verses 5:96, 16:14, 16:5, 35:12, 16:66, 80:32, 6:142, 5:4, 22:28, 22:30, 22:36, 23:21), grains and fruits (verses: 6:141, 6:99, 36:33, 16:11, 16:67, 19:25, 80:27, 80:28, 80:29, 16:69, 13:4, 23:19, 23:20).

Current medical literature corroborates many of the health benefits of specific food items that are described in the Qur'an. These include, grains, fruits like dates (9–13) grapes (14–18) olives (19), pomegranate (20, 21), honey (22–24), milk, fish (25) and meat.

The Qur'an also addresses the nutrition of infants. In the verse 2:233, the Qur'an encourages mothers to suckle their children for two years, or up to the age of thirty months as described in verse 46:15. Despite the availability of alternatives, modern scientific evidence still advocates the benefits of breast feeding for both infants and mothers (26–29).

In many verses, the Qur'an provides explicit instructions to avoid certain food and drinks, like swine flesh, carrion and intoxicants (verse: 6:119, 5:3, 2:173, 16:115, 6:145, 5:90, 5:91, 2:219).

The Qur'an forbids the consumption of alcohol, and modern research has provided evidence that the harms of alcohol outweigh the benefits (30).

Equally, the Qur'an provides instructions to avoid excessive consumption of food (verses 7:31, 20:81, 6:141). Although it is not always the case, it is now widely understood in nutritional science that an abundance of a particular food type in one's diet can be harmful. For example, excess intake of carbohydrates predisposes to diabetes mellitus whilst excess intake of

fat and cholesterol predisposes to atherosclerosis and cardiovascular diseases. Over-eating in general predisposes to obesity and its associated co-morbidities. These chronic diseases are contributing to a huge proportion of the world's healthcare burden.

While encouraging to eat and drink what God has provided and made permissible, the Quran provides instructions for certain acts and rituals which are made mandatory such as daytime fasting for eligible adults during the month of Ramadhan (verse 2:183, 2:184, 2:187). The current scientific literature favours the health benefits of Intermittent Fasting (31, 32).

Part of physical well-being includes sexual well-being. Sexuality and intimacy are both topics that the Qur'an has mentioned in many verses and in various contexts. The Qur'an provides basic guidance on healthy sexual behaviour including maintaining chastity, lowering the one's own gaze, protecting private parts and avoiding adultery and fornication (30:21, 2:222, 17:32, 24:2, 26:165, 23:5, 24:30, 24:31, 33:59, 4:34, 17:32, 24:2), and describes the philosophy behind the recommendation to improve the health at individual and at a society level. (verses: 4:1, 30:21, 7:189).

The current scientific literature suggests that there are over twenty infectious diseases that can be transmitted through various types of sexual practices. According to a WHO report more than one million Sexually Transmitted Infections (STIs) are acquired everyday worldwide (33). Each year, there are an estimated 376 million new infections (34). WHO recommends counselling and behavioural intervention to prevent STIs. Comprehensive sex education, targeting to key populations such as sex workers and counselling tailored to the needs of adolescents is needed. Having multiple sex partners increases the risk of infection with HIV and HPV. WHO has been using multiple resources to encourage safe sex practice all around the world and focusing some developing and underdeveloped countries to reduce the incidence of HIV and STI.

There are many verses of the Quran advising on the practice of personal hygiene (2:222, 74:5). For example, performing five daily prayers is obligatory for an adult and sane Muslim. This is not allowed without being in a state of physical purification by the way of performing an "ablution", which means cleaning and washing the face, hands, arms, and feet. (4:43.5:6). The current medical literature about the infectious diseases confirms that simply washing hands can minimise the risk of

transmission of many diseases, especially certain parasitic infestations specially those which are transmitted through faeco-oral route and certain viral infections like Covid 19.

The Qur'an claims that "hearts find peace only in remembrance of Allah" (verse 13:28). When suffering from physical, mental, or spiritual ailments, Muslims follow the practice of the Prophet Muhammad and often recite verses of the Qur'an.

To date, a significant number of research studies have provided evidence that the recitation of the Qur'an (RHQ) can improve the health of patients(35). The recitation of Qur'an has been shown to benefit the management of patients with anxiety, patients receiving haemodialysis, Muslim patients suffering from mental illness, reducing the anxiety level of the women going through labour and patients undergoing surgery(36–41) or endoscopic procedures. Further studies have suggested that the recitation of Qur'an improves stress responses, hemodynamic stability and conscious levels of patients who require intensive care support. The primary mechanism by which the recitation of Qur'an benefits physical, mental, and spiritual health appears to be through the reduction of anxiety. However, it is important to recognise that these mental and spiritual factors are key components of the holistic concept of health, as defined by organisations such as the WHO.

The Qur'an further advises readers to adopt a healthy psychological lifestyle with regards to adopting an attitude of kindness and forgiveness, controlling anger (verse 42.37, 3:134,9:15)and controlling feelings of delusions and jealousy. There are many verses where instructions have been given to adopt healthy moral values of being honest and trustworthy, which in turn improve psychological and spiritual health.

The Qur'an provides advice about spiritual and emotional health. Multiple verses in the Qur'an advise about staying away from the lust of the world and advise believers to adopt an appropriate and a balanced lifestyle to achieve reward in the hereafter.

While the Qur'an emphasises a preventative approach to healthcare, the Qur'an also provides instructions to mankind to protect life. In verse 5:32, the Qur'an emphasizes that saving one life is like saving the life of all mankind.

Since its inception, the WHO has been spending extensive resources in conjunction with the international health care authorities to improve the healthcare

worldwide. This includes personal and community hygiene, nutrition-related diseases like malnutrition in underdeveloped countries and obesity in the developed world, promoting and encouraging the practice of breast feeding, measures to minimise maternal and infant mortality rate, prevention of infectious diseases including healthy sexual practice, and cancer prevention including discouraging use of smoking and alcohol.

In the last few decades, the traditional Greco-Islamic medicine has been superseded by the modern medicine in most of the world. However, "Islamic medicine" is practiced as an adjunct or as an alternative to the western medicine. The guidance from the Quran is valued as sacred by Muslims and practices recommended in the Quran directly and through the practices of Prophet Muhammad are valued to be beneficial as a religious practice.

Conclusion

The Qur'an claims to be a divine book of guidance and the unmuted words of God. It is not a book of science. However, it provides guidance for readers on matters of lifestyle in order that believers may enjoy good health and avoid illness. Current medical science supports the principles of preventative medicine. Promoting the guidance about the healthcare that is provided in the Quran will achieve many of the health care objectives which WHO has been trying to achieve since its inception. This divine health care model requires further research about its applicability according to the contemporary knowledge of healthcare delivery system.

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Table 2: The word “ill” “mard” in the Quran

Surah	Verse number	Verse
Verb(form)-to be ill		
Ash-Shu'ara(Thepoets)	26:80	وَإِذَا مَرَضْتُ فَبَهُوَ يَشْفِينِ - 26:80 “and when I become sick, He heals me,”
Noun		
Al Baqarah (TheCow)	2:10	فِي قُلُوبِهِمْ مَّرَضٌ فَزَادَهُمُ اللَّهُ مَرَضًا وَلَهُمْ عَذَابٌ أَلِيمٌ بِمَا كَانُوا يَكْذِبُونَ - 2:10 “In their hearts there is a malady, so Allah has made them grow in their malady; and for them there is a grievous punishment, because they have been lying.”
Al-Ma'idah(The table spread)	5:52	فَتَرَى الَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ يُسَارِعُونَ فِيهِمْ يَقُولُونَ نَخْشَى أَنْ تُصِيبَنَا دَائِرَةٌ فَعَسَى اللَّهُ أَنْ يَأْتِيَ بِالْفَتْحِ أَوْ أَمْرٍ مِّنْ عِنْدِهِ فَيُصْبِحُوا عَلَىٰ مَا أَسْرُوا فِي أَنْفُسِهِمْ نَادِمِينَ - 5:52: “Now, you see those who have disease in their hearts race towards them saying, “We apprehend that some misfortune may overtake us.” So, it is likely that Allah may bring victory or something else from His own side, whereupon they will become regretful over what they concealed in their hearts.”
Al-Anfal(The spoils of war)	8:49	إِذْ يَقُولُ الْمُنَافِقُونَ وَالَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ غَرَّ هُوَ لَاءِ دِينُهُمْ وَمَنْ يَتَوَكَّلْ عَلَى اللَّهِ فَإِنَّ اللَّهَ عَزِيزٌ حَكِيمٌ - 8:49 “When the hypocrites and those who have a malady in their hearts said, “The belief of these people has deluded them.” And whoever places his trust in Allah (becomes victorious, because) Allah is Mighty, Wise.”
At-Tawbah (The Repentance)	9:125	وَأَمَّا الَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ فَزَادَتْهُمْ رِجْسًا إِلَىٰ رِجْسِهِمْ وَمَاتُوا وَهُمْ كَافِرُونَ - 9:125 “As for those who have malady in their hearts, it adds further impurity to their (initial) impurity, and they die infidels.”
Al-Haj (The Pilgrimage)	22:53	لِيَجْعَلَ مَا يُلْقِي الشَّيْطَانُ فِتْنَةً لِلَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ وَالْقَاسِيَةِ قُلُوبُهُمْ وَإِنَّ الظَّالِمِينَ لَفِي شِقَاقٍ بَعِيدٍ - 22:53 “(All this is allowed to be done) so that He may make what Satan casts a trial for those in whose hearts there is a disease, and whose hearts are hard;-and surely the wrongdoers are in the

		<i>utmost antagonism-</i> “
An-Nur(The Light)	24:50	أَفِي قُلُوبِهِمْ مَّرَضٌ أَمْ ارْتَابُوا أَمْ يَخَافُونَ أَنْ يَحِيفَ اللَّهُ عَلَيْهِمْ وَرَسُولَهُ ۗ بَلْ أُولَٰئِكَ هُمُ الظَّالِمُونَ - 24:50 <i>“Is there a malady in their hearts or do they have doubt or do they fear that Allah and His messenger will do injustice to them? Rather they themselves are the unjust.”</i>
Al-Ahzab(The combined Forces)	33:12	وَإِذْ يَقُولُ الْمُنَافِقُونَ وَالَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ مَا وَعَدَنَا اللَّهُ وَرَسُولُهُ إِلَّا غُرُورًا - 33:12 <i>“(Remember) when the hypocrites and those having malady in their hearts were saying, “Allah and His messenger did not promise us but deceitfully;”</i>
Al-Ahzab(The combined Forces)	33:32	يَا نِسَاءَ النَّبِيِّ لَسَنُنَّ كَأَحَدٍ مِّنَ النِّسَاءِ ۚ إِنِ اتَّقَيْتُنَّ فَلَا تَخْضَعْنَ بِالْقَوْلِ فَيَطْمَعَ الَّذِي فِي قَلْبِهِ مَّرَضٌ وَقُلْنَ قَوْلًا مَّعْرُوفًا - 33:32 <i>“O wives of the prophet, you are not like any other women, if you observe taqwā (righteousness). So, do not be too soft in your speech, lest someone having disease in his heart should develop fancies (about you); and do speak with appropriate words.”</i>
Al-Ahzab(The combined Forces)	33:60	لَئِن لَّمْ يَنْتَهِ الْمُنَافِقُونَ وَالَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ وَالْمُرْجِفُونَ فِي الْمَدِينَةِ لَنُغْرِيَنَّكَ بِهِمْ ثُمَّ لَا يُجَاوِرُونَكَ فِيهَا إِلَّا قَلِيلًا - 33:60 <i>“If the hypocrites and those having malady in their hearts and the ones who spread rumours in Madīnah do not stop (their evil deeds), We will certainly stir you up against them, then they shall no longer live in it as your neighbours, but for a little while,”</i>
Muhammad (Muhammad)	47:20	وَيَقُولُ الَّذِينَ آمَنُوا لَوْلَا نُزِّلَتْ سُورَةٌ فَإِذَا أُنزِلَتْ سُورَةٌ مُحْكَمَةٌ وَذُكِرَ فِيهَا الْقِتَالُ رَأَيْتَ الَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ يَنْظُرُونَ إِلَيْكَ نَظَرَ الْمَغْشِيِّ عَلَيْهِ مِنَ الْمَوْتِ فَأَوْلَىٰ لَهُمْ - 47:20 And the believers say, “Why has a (new) Sūrah not been revealed?” Then, once an operative Sūrah is sent down, and fighting (in Allah’s way) is mentioned in it, you notice those who have disease in their hearts, looking to you like one who is faint because of death. So, destruction is very close to them.
Muhammad	47:29	أَمْ حَسِبَ الَّذِينَ فِي قُلُوبِهِمْ مَّرَضٌ أَنْ لَّنْ يُخْرِجَ اللَّهُ أَضْعَانَهُمْ - 47:29

(Muhammad)		Do those having malady in their hearts think that Allah will never expose their grudges (against Islam)?
Al- Muddaththir(The Cloaked one)	74:31	<p>وَمَا جَعَلْنَا أَصْحَابَ النَّارِ إِلَّا مَلَائِكَةً ۖ وَمَا جَعَلْنَا عِدَّتَهُمْ إِلَّا فِتْنَةً لِّلَّذِينَ كَفَرُوا لِيَسْتَيْقِنَ الَّذِينَ أُوتُوا الْكِتَابَ وَيَزِدَّادَ الَّذِينَ آمَنُوا إِيمَانًا ۖ وَلَا يَرْتَابَ الَّذِينَ أُوتُوا الْكِتَابَ وَالْمُؤْمِنُونَ ۚ وَلِيَقُولَ الَّذِينَ فِي قُلُوبِهِم مَّرَضٌ وَالْكَافِرُونَ مَاذَا أَرَادَ اللَّهُ بِهَذَا مَثَلًا ۗ كَذَلِكَ يُضِلُّ اللَّهُ مَن يَشَاءُ وَيَهْدِي مَن يَشَاءُ ۗ وَمَا يَعْلَمُ جُنُودَ رَبِّكَ إِلَّا هُوَ ۗ وَمَا هِيَ إِلَّا ذِكْرٌ لِلنَّاسِ - 74:31</p> <p>And We did not make wardens of the Fire but (from) angels, and did not fix their number but as a test for those who disbelieve, so that those who are given the Book may come to believe, and those who believe may improve in belief, and so that those who are given the Book and those who believe may not doubt (its correctness), and so that those having malady in their hearts and the disbelievers say, “What has Allah meant by this strange statement?” Thus Allah lets go astray whomever He wills, and leads to the right path whomever He wills. And no one knows the hosts of your Lord but He. And this is nothing else but a reminder for mankind.</p>
Al Baqarah (The Cow)	2:184	<p>أَيَّامًا مَّعْدُودَاتٍ ۚ فَمَن كَانَ مِنكُم مَّرِيضًا أَوْ عَلَىٰ سَفَرٍ فَعِدَّةٌ مِّنْ أَيَّامٍ أُخَرَ ۗ وَعَلَى الَّذِينَ يُطِيقُونَهُ فِدْيَةٌ طَعَامُ مِسْكِينٍ ۚ فَمَن تَطَوَّعَ خَيْرًا فَهُوَ خَيْرٌ لَّهُ ۗ وَأَن تَصُومُوا خَيْرٌ لَّكُمْ إِن كُنتُمْ تَعْلَمُونَ - 2:184</p> <p>for days few in number. However, should any one of you be sick or on a journey, then (he should fast) a number of other days (equal to the missed ones); and those who have the strength, (still, they do not opt for fasting,) on them there is a fidyah (compensation), that is, the feeding of a poor person. Then whoever does good voluntarily, that is better for him. However, that you fast is better for you, if you only knew.</p>
Al Baqarah (The Cow)	2:185	<p>شَهْرُ رَمَضَانَ الَّذِي أُنزِلَ فِيهِ الْقُرْآنُ هُدًى لِّلنَّاسِ وَبَيِّنَاتٍ مِّنَ الْهُدَىٰ وَالْفُرْقَانِ ۚ فَمَن شَهِدَ مِنكُمُ الشَّهْرَ فَلْيَصُمْهُ ۗ وَمَن كَانَ مَرِيضًا أَوْ عَلَىٰ سَفَرٍ فَعِدَّةٌ مِّنْ أَيَّامٍ أُخَرَ ۗ يُرِيدُ اللَّهُ بِكُمُ الْيُسْرَ وَلَا يُرِيدُ بِكُمُ الْعُسْرَ وَلِتُكْمِلُوا الْعِدَّةَ وَلِتُكَبِّرُوا اللَّهَ عَلَىٰ مَا هَدَاكُم وَلَعَلَّكُمْ تَشْكُرُونَ - 2:185</p> <p>The month of Ramadan is the one in which the Qur’ān was revealed as guidance for mankind, and as clear signs that show the right way and distinguish between right and wrong. So those of you who witness the month must fast in it. But the one who is sick, or is on a journey (should fast) as much from other days (as he missed). Allah intends (to provide) ease for you and does not intend (to create) hardship for you. All this is so that you may complete the number (of fasts as prescribed) and proclaim the Takbīr of Allah for having guided you, and (so) that you may be</p>

		grateful.
Al Baqarah)The Cow)	2:196	<p>وَأَتِمُّوا الْحَجَّ وَالْعُمْرَةَ لِلَّهِ فَإِنْ أُحْصِرْتُمْ فَمَا اسْتَيْسَرَ مِنَ الْهَدْيِ وَلَا تَخْلِفُوا رُءُوسَكُمْ حَتَّىٰ يَبْلُغَ الْهَدْيُ مَحَلَّهُ فَمَنْ كَانَ مِنْكُمْ مَّرِيضًا أَوْ بِهِ أَذًى مِنْ رَأْسِهِ فَفِدْيَةٌ مِنْ صِيَامٍ أَوْ صَدَقَةٍ أَوْ نُسُكٍ فَإِذَا أَمِنْتُمْ فَمَنْ تَمَتَّعَ بِالْعُمْرَةِ إِلَى الْحَجِّ فَمَا اسْتَيْسَرَ مِنَ الْهَدْيِ فَمَنْ لَمْ يَجِدْ فَصِيَامٌ ثَلَاثَةِ أَيَّامٍ فِي الْحَجِّ وَسَبْعَةٍ إِذَا رَجَعْتُمْ تِلْكَ عَشْرَةٌ كَامِلَةٌ ذَلِكَ لِمَنْ لَمْ يَكُنْ أَهْلَهُ حَاضِرِي الْمَسْجِدِ الْحَرَامِ وَاتَّقُوا اللَّهَ وَاعْلَمُوا أَنَّ اللَّهَ شَدِيدُ الْعِقَابِ - 2:196</p> <p>Accomplish the Hajj and the ‘Umrah for Allah, but if you are restricted, then (sacrifice) whatever animal of offering is available, and do not shave your heads until the offering reaches its place. But if anyone of you is ill, or has some trouble with his scalp, then there is a ransom through fasting or alms giving. And when you are safe, then, whoever avails the advantage of the ‘Umrah along with the Hajj shall make an offering of whatever animal is available. However, any one who finds none shall fast for three days during Hajj, and for seven days when you return; thus they are ten in all. This is for him whose family folk are not residents of Al-Masjid-ul-Harām. Fear Allah and be aware that Allah is severe in punishment.</p>
Al-Nisa(The Women)	4:43	<p>يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَقْرَبُوا الصَّلَاةَ وَأَنْتُمْ سُكَارَىٰ حَتَّىٰ تَعْلَمُوا مَا تَقُولُونَ وَلَا جُنُبًا إِلَّا عَابِرِي سَبِيلٍ حَتَّىٰ تَغْتَسِلُوا وَإِنْ كُنْتُمْ مَرْضَىٰ أَوْ عَلَىٰ سَفَرٍ أَوْ جَاءَ أَحَدٌ مِنْكُمْ مِنَ الْغَائِطِ أَوْ لَامَسْتُمُ النِّسَاءَ فَلَمْ تَجِدُوا مَاءً فَتَيَمَّمُوا صَعِيدًا طَيِّبًا فَامْسَحُوا بِرُءُوسِكُمْ وَأَيْدِيكُمْ إِنَّ اللَّهَ كَانَ عَفُورًا غَفُورًا - 4:43</p> <p>O you who believe! Do not go near Salāh when you are intoxicated, until you know what you say, nor in a state of ‘major impurity’.,-save when you are traversing a way-until you take a bath. If you are sick, or in travel, or if one of you has come after relieving himself, or you have had contact with women, and you find no water, go for some clean dust and wipe your faces and hands (with it). Surely, Allah is Most-Pardoning, Most-Forgiving.</p>
Al-Nisa(The Women)	4:102	<p>وَإِذَا كُنْتَ فِيهِمْ فَأَقَمْتَ لَهُمُ الصَّلَاةَ فَلْتَقُمْ طَائِفَةٌ مِنْهُمْ مَعَكَ وَلْيَأْخُذُوا أَسْلِحَتَهُمْ فَإِذَا سَجَدُوا فَلْيَكُونُوا مِنْ وَرَائِكُمْ وَلْتَأْتِ طَائِفَةٌ أُخْرَىٰ لَمْ يُصَلُّوا فَلْيُصَلُّوا مَعَكَ وَلْيَأْخُذُوا حِذْرَهُمْ وَأَسْلِحَتَهُمْ وَدَّ الَّذِينَ كَفَرُوا لَوْ تَغْفُلُونَ عَنْ أَسْلِحَتِكُمْ وَأَمْتِعَتِكُمْ فَيَمِيلُونَ عَلَيْكُمْ مَيْلَةً وَاحِدَةً وَلَا جُنَاحَ عَلَيْكُمْ إِنْ كَانَ بِكُمْ أَذًى مِنْ مَطَرٍ أَوْ كُنْتُمْ مَرْضَىٰ أَنْ تَضَعُوا أَسْلِحَتَكُمْ وَخُذُوا حِذْرَكُمْ إِنَّ اللَّهَ أَعَدَّ لِلْكَافِرِينَ عَذَابًا مُهِينًا - 4:102</p> <p>When you (O prophet) are in their midst, and arrange for them the Salāh, then, a party from them should stand with you, and should take their arms along. Then, once they performed Sajdah, they should move away from you, and the other party, that has not yet performed Salāh, should come and perform Salāh with</p>

		<p>you, and should take their precautionary measures and their arms. Those who disbelieve would want you to become heedless to your arms and your belongings, so that they come down upon you in a single move. There is no sin on you, if you have some inconvenience due to rain, or you are sick, in putting your arms aside, but take your precautionary measures. Surely, Allah has prepared for the disbelievers a humiliating punishment.</p>
Al-Ma'idah(The Table Spread)	5:6	<p>يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا قُمْتُمْ إِلَى الصَّلَاةِ فَاغْسِلُوا وُجُوهَكُمْ وَأَيْدِيَكُمْ إِلَى الْمَرَافِقِ وَامْسَحُوا بِرُءُوسِكُمْ وَأَرْجُلَكُمْ إِلَى الْكَعْبَيْنِ وَإِنْ كُنْتُمْ جُنُبًا فَاطَّهَّرُوا وَإِنْ كُنْتُمْ مَرْضَىٰ أَوْ عَلَىٰ سَفَرٍ أَوْ جَاءَ أَحَدٌ مِّنْكُم مِّنَ الْغَائِطِ أَوْ لَامَسْتُمُ النِّسَاءَ فَلَمْ تَجِدُوا مَاءً فَتَيَمَّمُوا صَعِيدًا طَيِّبًا فَامْسَحُوا بِوُجُوهِكُمْ وَأَيْدِيكُمْ مِنْهُ مَا يُرِيدُ اللَّهُ لِيَجْعَلَ عَلَيْكُمْ مِنْ حَرَجٍ وَلَكِنْ يُرِيدُ لِيُطَهِّرَكُمْ وَلِيُتِمَّ نِعْمَتَهُ عَلَيْكُمْ لَعَلَّكُمْ تَشْكُرُونَ - 5:6</p> <p>O you who believe, when you rise for Salāh, (prayer) wash your faces and your hands up to the elbows, and make MasH (wiping by hands) of your heads and (wash) your feet up to the ankles. If you are in a state of major impurity, cleanse yourselves well (by taking bath). If you are sick, or on a journey, or if one of you has come after relieving himself, or you have had sexual contact with women, and you find no water, then, go for some clean dust and wipe your faces and hands with it. Allah does not like to impose a problem on you; He, rather likes to cleanse you and to complete His favour upon you, so that you may be grateful.</p>
At-Tawbah (The Repentance)	9:91	<p>لَيْسَ عَلَى الضَّعْفَاءِ وَلَا عَلَى الْمَرْضَىٰ وَلَا عَلَى الَّذِينَ لَا يَجِدُونَ مَا يُنْفِقُونَ حَرَجٌ إِذَا نَصَحُوا لِلَّهِ وَرَسُولِهِ مَا عَلَى الْمُحْسِنِينَ مِنْ سَبِيلٍ وَاللَّهُ غَفُورٌ رَّحِيمٌ - 9:91</p> <p>There is no blame on the weak, or on the sick, or on those who have nothing to spend, if they are sincere to Allah and His Messenger. There is no way against those who are good in deeds. Allah is most Forgiving, Very Merciful.</p>
Al-Nur(The Light)	24:61	<p>لَيْسَ عَلَى الْأَعْمَىٰ حَرَجٌ وَلَا عَلَى الْأَعْرَجِ حَرَجٌ وَلَا عَلَى الْمَرِيضِ حَرَجٌ وَلَا عَلَى أَنفُسِكُمْ أَنْ تَأْكُلُوا مِنْ بُيُوتِكُمْ أَوْ بُيُوتِ آبَائِكُمْ أَوْ بُيُوتِ أُمَّهَاتِكُمْ أَوْ بُيُوتِ إِخْوَانِكُمْ أَوْ بُيُوتِ أَخْوَالِكُمْ أَوْ بُيُوتِ عَمَّاتِكُمْ أَوْ بُيُوتِ عَمَّاتِكُمْ أَوْ بُيُوتِ إِخْوَانِكُمْ أَوْ مِمَّا مَلَكَتْ يَمَانُوكُمْ أَوْ صَدِيقِكُمْ لَيْسَ عَلَيْكُمْ جُنَاحٌ أَنْ تَأْكُلُوا جَمِيعًا أَوْ أَشْتَاتًا فَإِذَا دَخَلْتُمْ بُيُوتًا فَسَلِّمُوا عَلَىٰ أَنفُسِكُمْ تَحِيَّةً مِّنْ عِنْدِ اللَّهِ مُبَارَكَةً طَيِّبَةً كَذَلِكَ يُبَيِّنُ اللَّهُ لَكُمُ الْآيَاتِ لَعَلَّكُمْ تَعْقِلُونَ - 24:61</p> <p>There is no blame on a blind person, nor is there any blame on any lame one, nor is there any blame on a sick person, nor on yourselves in that you eat (something) from your own homes or from the homes of your fathers or the homes of your mothers or the homes of your brothers or the homes of your sisters or the homes of your paternal uncles, or the homes of your paternal</p>

		<p>aunts or the homes of your maternal uncles or the homes of your maternal aunts or from the places the keys of which you have under your control,16 or from (the home of) your friend. There is no sin on you if you eat together or separately. So when you enter homes, greet one another with Salām , a greeting prescribed by Allah, which is blessed, pleasant. This is how Allah explains the verses to you, so that you may understand.</p>
Al-Fath(The Victory)	48:17	<p>لَيْسَ عَلَى الْأَعْمَى حَرْجٌ وَلَا عَلَى الْأَعْرَجِ حَرْجٌ وَلَا عَلَى الْمَرِيضِ حَرْجٌ وَمَنْ يُطْعِ اللَّهَ وَرَسُولَهُ يَدْخُلْهُ جَنَّاتٍ تَجْرِي مِنْ تَحْتِهَا الْأَنْهَارُ وَمَنْ يَتَوَلَّ يُعَذِّبْهُ عَذَابًا أَلِيمًا - 48:17</p> <p>There is no blame on the blind, nor is there any blame on the lame, nor is there any blame on the sick. Whoever obeys Allah and His Messenger, He will admit him to the gardens beneath which rivers flow. But whoever turns away, He will punish him with a painful punishment.</p>
Al- Muzzammil(The Enshrouded one)	73:20	<p>إِنَّ رَبَّكَ يَعْلَمُ أَنَّكَ تَقُومُ أَدْنَىٰ مِنْ ثُلُثِي اللَّيْلِ وَنِصْفَهُ وَثُلُثَهُ وَطَائِفَةٌ مِنَ الَّذِينَ مَعَكَ ۗ وَاللَّهُ يُقَدِّرُ اللَّيْلَ وَالنَّهَارَ ۗ عَلِمَ أَنْ لَنْ تُحْصُوهُ فَتَابَ عَلَيْكُمْ ۖ فَاقْرَءُوا مَا تَيَسَّرَ مِنَ الْقُرْآنِ ۗ عَلِمَ أَنْ سَيَكُونُ مِنْكُمْ مَرْضَىٰ ۖ وَأَخْرُوجُنَّ يُضْرَبُونَ فِي الْأَرْضِ يُبْتَغُونَ مِنْ فَضْلِ اللَّهِ ۖ وَأَخْرُوجُنَّ يُفَاتِلُونَ فِي سَبِيلِ اللَّهِ ۖ فَاقْرَءُوا مَا تَيَسَّرَ مِنْهُ ۗ وَأَقِيمُوا الصَّلَاةَ وَآتُوا الزَّكَاةَ وَأَقْرِضُوا اللَّهَ قَرْضًا حَسَنًا ۗ وَمَا تُقَدِّمُوا لِأَنْفُسِكُمْ مِنْ خَيْرٍ تَجِدُوهُ عِنْدَ اللَّهِ هُوَ خَيْرًا وَأَعْظَمَ أَجْرًا ۗ وَاسْتَغْفِرُوا لِلَّذِينَ آمَنُوا مِنْ خَيْرٍ ۗ إِنَّ اللَّهَ غَفُورٌ رَحِيمٌ - 73:20</p> <p>Your Lord knows that you stand (in prayer) for nearly two thirds of the night, and (at times) for half of it, and (at times) for one third of it, and (so do) a group of those who are with you. And Allah measures the night and the day. He knows that you (O Muslims,) cannot do it in regular way; therefore He turned to you in mercy. Now, recite as much of the Qur'an as is easy (for you). He knows that some of you may be sick, and others traveling in the land, seeking the grace of Allah, and yet others fighting in Allah's way. Therefore, recite as much of it as is easy. And establish Salāh, and pay Zakāh, and advance to Allah a goodly loan. And whatever good you will send ahead for yourselves, you will find it with Allah much better in condition, and much greater in reward. And seek forgiveness from Allah. Indeed, Allah is Most-Forgiving, Very-Merciful.</p>

Bimaristans: Services and Their Educational Role in Islamic Medical History and Their Influence on Modern Medicine and Hospitals

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Abstract

The NHS is struggling to retain health care providers, a notion that could be described as Drexit, as a consequence of Brexit. One solution to retaining health care providers is to welcome diversity by exploring Islamic medical ethics. British Muslims form a significant portion of the NHS. A look into the legacy of Muslims and health care may help to reduce Islamophobia and appreciate what inspires and motivates Muslim health care providers to contribute to the NHS. This legacy can be explored by visiting the way *bimaristans*, which were hospitals largely funded by Muslim philanthropists, operated in the Middle Ages. By understanding the way *bimaristans* helped to develop ancient medicine and the way they influenced European hospitals can help to shed light on Islamic medical ethics. Importantly, Islam promotes an attitude of well-being for patients and teaches health care providers to remain modest and resilient throughout their careers whilst always endeavouring to improve the provision of health care.

1. Introduction

The NHS has certainly become a world-renowned and admired health service. Among the NHS' greatest achievements include arguably its provision of care based on need and free health care for all as a basic human right. Free care by the NHS is a commendable aspect of health care. Free care removes the fear for patients of how they would pay for their treatment. Furthermore, free care allows health care providers to focus on their patients' health rather than engage in financial discussions about the treatment. The strength of the NHS

lies in its withstanding the numerous restructures and adaptations to innovation to meet the demands of an ever-growing and ageing population. Additionally, the NHS continues to meet the needs of the diverse cultural needs of patients [1].

Nevertheless, health care providers continue to face two main challenges a) for doctors to maintain a strong trusting relationship with patients and b) for the NHS to retain health care providers. In this article, we examine, from the Middle Ages, the organisation and setup of Muslim hospitals, better known as *bimaristans*, to

explore a range of traditional approaches based on Islamic medical ethics. The bimaristans were known to welcome staff diversity including multi-ethnicity and multi-faith perspectives to address everyday problems. Such diversity attracted health care providers and patients. Additionally, this ecumenical approach also attracted philanthropists to fund the bimaristans to acquire the latest medical equipment, instruments, and services. We also explore, in this article, the way Islamic medical ethics influenced and inspired medical practice in Europe.

As the NHS is a patient-centred service, by revisiting the way bimaristans operated, insight could be gained into the traditions, norms, values, and needs of Muslim patients and health care providers. Stakeholders could then apply this knowledge to accommodate better the needs of a diverse range of health care providers and patients.

2. Islamic perspective on health care in bimaristans

Bimaristans inspired Muslim health care providers to take up the career by appealing to the spiritual reward of saving lives being equal to saving humanity, as described in the Holy Qur'an. Muslim physicians also viewed illnesses as a test of patience rather than a curse and believed that the body and soul were both possible to save. Moreover, based on Prophet Muhammad's (Peace be upon him) vision, Muslim philanthropists supported bimaristans through generous donations to serve as peacemakers.

2.1 Qur'anic perspective on medicine as a career

In Islam, humans are believed to have the important role of exercising God's will on Earth through justice and kindness. Each individual plays a different role in contributing to the many complex systems that lead to creating a harmonious civilisation. Prophet Muhammad taught that everyone should commit to their work because the inspiration to work comes from God - to lead a person to their destiny [2][3]. The idea of *tawfeeq*, meaning ability, is likewise, an important concept for Muslims. A sufi understanding is that the sense of responsibility one feels to serve a noble call is *ilham* meaning inspiration and blessing from God. Likewise, the notion of *khidma* meaning 'service' and working *fi sabil Allah* meaning 'for the sake of Allah', all promote a strong Islamic work ethic.

The Qur'an states that 'If anyone saves a life, it is as if he saves the lives of all mankind' [4]. As such, Muslim patients might not only feel the natural need to take care of their health but Islam places a sense of duty on humanity and especially on physicians to take care of the ill. In this way, the physicians may feel a sense of achievement by treating their patients, whereas the patients may feel a sense of wanting to regain their health so that they may continue to serve their calling. Furthermore, the higher objectives of Islamic law, known as the *maqasid al-shari'ah*, which are based on the Qur'an, include preservation of faith, life, mind, offspring, and wealth [5].

Based on these objectives, the bimaristans ensured that quality health care was provided. At the centre of health care in Islam is the notion of being mindful of one's purpose and goal in life. With regard to such a calling, Prophet Muhammad reminded people to value five things before they are lost: youth, good health, financial stability, leisurely time, and indeed life itself [6]. Based on the Qur'an and the teachings of Prophet Muhammad, the ethos of a bimaristan could be understood as being a place where physicians felt a strong sense of religious duty toward their patients [7]. The expectation of health care providers appears to have been to seek spiritual satisfaction more so than to gain only material rewards. The prophetic teachings on taking care of the sick focus not only on the physically sick but focus also on those facing mental health issues. Likewise, the focus is not only on city dwellers, but also on being mindful of the sick among the Bedouins, travellers, prisoners, and other categories of people who are likely to be overlooked and who may have lower life expectancy.

2.2 Attending to the body and faith

A popular belief in Europe during the middle-ages was that certain illnesses were a curse from God. By contrast, Muslim theologians viewed sickness itself to be a means of atonement. Treating physical symptoms, on the other hand, was viewed as a noble effort because it restored patients' well-being. Scholars from Prophet Muhammad's progeny also engaged in changing the mindset of the people towards diseases. Jabir bin Hayyan (d.813), who is regarded as the father of Arab chemistry and one of the founders of modern pharmacy[8], credits Ja'far al-Sadiq (d.765) as the source of his knowledge of chemistry [9]. Ja'far's son Musa al-Kazim (d. 799) would echo the Prophet's words:

When a believer falls ill, Allah instructs the scribe to the patient's left side: "Do not record a single sin against my servant as long as he is in my custody, and in my hold." And He instructs the scribe to the right: "Write for my servant on his page of good deeds that which you would have recorded for him when he was well." [10]

Al-Kazim's son, Ali Al-Rada (d. 818) is credited as having authored the text *Al-Risala al-Dhahabiyya*, a medical treatise which the Abbasid caliph Al-Mansur (d.775) ordered to have written in gold ink [11].

The teachings of the Prophet Muhammad and his progeny continued to inspire Muslim physicians during the Abbasid golden era. One notable hadith states that 'God has appointed a treatment for every disease. So treat yourselves medically' [12]. This shift toward attending to the spiritual and physical needs of patients also meant that to practise medicine, practitioners needed to be qualified in medicine and not that they relied solely on theological knowledge. Prophet Muhammad warned society that 'should anyone practise medicine without being qualified to do so must be held accountable' [13]. As such, bimaristans employed only licensed physicians who were held in high esteem and even received high wages. This approach kept the patients safe from quacks and charlatans, as well as from dangerous surgery, which at the time was practised by street barbers.

In this way, physicians at the bimaristans were able to tend to the spiritual well-being of patients in a manner similar to the Church. Bimaristans, however, differed by treating the physical symptoms which were explored by applying and developing Galenic medicine. For instance, leprosy was known to be infectious as detailed by the Greeks but an illness that was despised in Europe to the point of viewing patients with leprosy as cursed [14].

The bimaristans took a different approach by segregating patients with leprosy humanely. Physicians specialising in treating leprosy were assigned to treat leprosy. Furthermore, bimaristans had different wards for patients suffering from fevers, ophthalmic diseases, dysentery, and psychiatric illnesses. The psychiatric bimaristan in Baghdad in the 9th century is perhaps the first of its kind [15].

Other renowned psychiatric bimaristans were founded by Ibn Tulun (d. 884) in Egypt in 872 and by the Mamluk governor Arghun Al-Kamili (image 1 below) in Aleppo in 1354 [16].

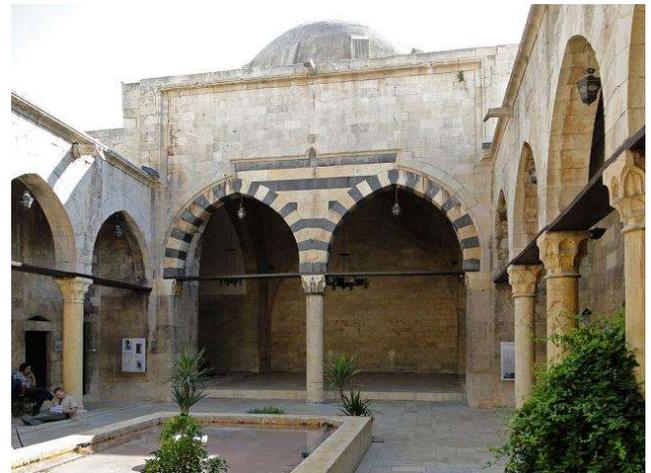


Figure 1. Bimaristan Arghun Al-Kamili (Aleppo, Syria) [17]

2.3 The *Awqaf* financing system

During the second medical revolution in Europe towards the end of the 4th century, Christians in the Byzantine Empire had established civilian hospitals in cathedrals [18]. Prophet Muhammad envisioned the next step; a system whereby free health care would be provided to all people irrespective of religion. This vision was actualised when Muqawqis, who administered Egypt on behalf of the Christian Byzantine Empire, sent a physician to Muhammad in Medina. Muhammad instructed the doctor to treat patients gratuitously [19]. Muslims who sought spiritual reward appear to have found the motivation to be altruistic rather than focus primarily on receiving material gain for their medical services.

Moreover, Muslim philanthropists funded the bimaristans. The emphasis in the Qur'an to save lives combined with Prophet Muhammad's charitable approach to health care led to what later developed into bimaristans, a new type of medical-cum-charitable institution, where sick people of all backgrounds could be treated for free [20]. The first mobile dispensary that was set up by Muhammad took the form of a tent at the battle of Khandaq (circa 627), wherein Rufaidabint Sa'ad, the first female Muslim nurse, treated the wounded [21].

Interestingly, the bimaristans differed from Byzantine hospitals in that the bimaristans were not run by religious establishments nor was supernatural healing practised. Bimaristans were run either by government officials or by philanthropists [22]. A diverse team of physicians of different religions and ethnicities came together to heal the sick. The gratuity led to bimaristans being large elaborate institutions with advanced urban structures, some of which are UNESCO protected sites today (see

figures 2 and 3 below). Bimaristans were open to patients of all gender and age groups, belief systems, and to military personnel as well as civilian patients [23].



Figure 2. Bimaristan Al-Muayyidi(Cairo, Egypt)[24]



Figure 3. Divriği Ulu Cami ve Darüüşşifası (Divriği Great Mosque and Hospital, Turkey) [25]

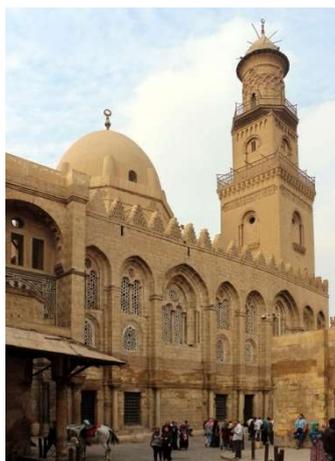


Figure 4. Bimaristan Al-Mansuri (Cairo, Egypt)[26]

Some bimaristans were extremely large and served as regional primary medical centres. For instance, the Bimaristan Al-Mansuri (see image 4 above) established in 1248 had 8,000 beds primarily for the people of Cairo throughout the 15th century [27]. To put into perspective the sheer size of the Bimaristan Al-Mansuri, Northern Ireland has 41 hospitals with a total of 3,879 beds for a

population of 1.89 million [28]. The Bimaristan Al-Mansuri policy statement read:

The hospital shall keep all patients, men and women, until they are completely recovered. All costs are to be borne by the hospital whether the people come from afar or near, whether they are residents or foreigners, strong or weak, low or high, rich or poor, employed or unemployed, blind or sighted, physically or mentally ill, learned or illiterate. There are no conditions of consideration and payment; none is objected to or even indirectly hinted at for non-payment. The entire service is through the magnificence of Allah, The Generous One [29].

In 1948, the NHS furthered the idea of free health care when it made health care available to meet the needs of everyone for free at the point of delivery based on clinical need and not on the ability to pay.

According to research conducted by Baker et al. (2019) on the language of patient feedback, they found that among the concerns that were raised as ‘urgent’ included not having access to services such as being referred to specialists; problems with booking medical appointments; lack of parking facilities especially disabled parking spaces; and parking being too expensive in general [30]. Such concerns raise issues related to the way hospitals are financed and the way the budget is managed. Whereas the NHS, is funded mainly from taxation and National Insurance contributions (NICs), bimaristans were mainly financed by *Waqf* (pl. *Awqaf*), which is a property that is dedicated to a beneficial cause in the hope to seek spiritual reward. The proceeds were typically used to finance educational institutions, graveyards, mosques, shelters, and retirement homes [31][32].

Waqf, however, was largely used to fund hospitals and medicines. The 50 hospitals in Cordoba were all financed by waqf. In Istanbul, the waqf fund was used to establish a hospital for children [33]. Moreover, the waqf funds were used not only to establish whole institutions but were also used to make improvements or provide specific services. The waqf fund was used also to maintain and pay for the running costs of the bimaristans. For instance, funds would be used to offer clothing to patients as well as to provide plenty of healthy food. The patients’ eating habits were considered for prognosis. Surviving recipes from early Islamic cookbooks and bimaristan records reveal that meats, vegetables, and fruits were more common than common staples such as bread.

Interestingly, the discharge of patients seems to have been based on their ability to consume a whole chicken; viewed as a sign of well-being to be able to eat an equivalent of a three-course meal [34].

A recent example of a waqf-based clinic in a non-Muslim country is the MyintMyatPhu Zin clinic founded in 2009, located in the middle of Mandalay, the cultural and religious centre of Buddhism in Burma. The land was donated by two founders and additional contributors supported the building of the clinic. The clinic was established to show how Islamic teachings could play a significant role in the well-being of the people of Myanmar irrespective of their beliefs [35].

3. Bimaristans and Europe

Bimaristans influenced the mindset of physicians in the Middle Ages. This section explores how the medicine previously practised in Christian Europe was developed; the way Europe embraced the medical achievements of bimaristans; and importantly, how the bimaristans served as models of a patient-centred health care system.

3.1 Change of medical mindset

A major shift in the way medicine was approached was that the physicians focused more on health rather than disease. Avicenna (from the Arabic *IbnSina*, d. 1037), in the Canon of Medicine, writes,

To medicine pertains the (study of the) human body — how its health is maintained; how it loses health. To know fully about each of these we must ascertain the causes of both health and sickness. Now as health and sickness and their causes are sometimes evident to the senses and sometimes only perceived by means of the evidence afforded by the various symptoms, we must in medicine gain knowledge of the symptoms of health and sickness [36].

Diseases were not viewed by Muslim physicians as a divine punishment but as a result of the interaction of the human body with its surroundings. Moreover, this led to finding the elementary cause of diseases and finding the treatment. An idea which Prophet Muhammad himself emphasised, ‘Allah did not create an illness except he also created for it a treatment. Those with knowledge are aware; whilst those who are ignorant, remain ignorant’ [37]. This statement is likely the cause of Muslim scientists wanting to witness the truthfulness of Muhammad’s statement and choosing to no longer remain ignorant of such life-changing knowledge. In this

way, the bimaristans were not just places where patients were treated but where the spirituality of physicians and patients was strengthened as they witnessed diseases - that were once thought impossible to cure - being cured before their eyes [38].

3.2 Development of the medicinal practice of the Church

The focus on saving the body as well as the soul was in a sense, unique to bimaristans. During medieval times, the Church made efforts to curb the spread of diseases and to tend to the care of the sick. The aim of the Church appears to have been the salvation of the soul since effective treatments had not developed [39]. Nevertheless, followers of the Abrahamic faiths were spiritually motivated to attend to the ‘physical needs’ [40] of the sick often by female nurses, who kept patients warm and well fed, hence, the word ‘nurse’, which comes from the Latin *nutricius* or *nutritius* meaning nourishing [41].

The Church helped in establishing hospitals annexed to monasteries to tend to the care of the ill. The medicine of the time was based on Hippocrates’ theory of the four humors. Humorism is the idea that if the four liquids in the human body (phlegm, blood, yellow bile, and black bile) were out of balance then one would become sick. Galen developed humorism through the theory of opposites, by this he believed that bodily liquids could regain balance for instance by having a hot bath during cold weather to control excessive phlegm. This theory also gave rise to purging, bloodletting, and amputation of limbs [42]. However incorrect Galen’s theory, he concluded that the design of such a marvellous body meant that there must be a God who designed it. Galen’s monotheistic views attracted the Church which adopted his work. However, without the Church challenging Galen’s theories, it faced a great medical challenge during the great plague.

With the fall of the Roman Empire, the blueprints explaining the methods to repair aqueducts, toilets, and public baths too were lost. Access to clean drinking water declined and biological waste in public places increased. The foul smell and bad air gave rise to miasma theory which held that plagues were caused by rotting organic matter [43]. The Church also held the belief that plagues, as described in the Bible, were divine punishments for sins. Between 1000 and 1500 CE, over 700 hospitals next to monasteries were set up in England by the Church [44]. Another belief during the time, which was rooted neither in Christianity nor Islam, was that the plague was

due to the position of the planets. The Church encouraged regular prayer to God and to burn incense. Additionally, some Christians viewed making pilgrimage to holy sites as a way of atonement. Bearing in mind the theological and supernatural explanations, the plague is known to have travelled through the European trade routes through rats and fleas. Despite the many well-intended efforts of the Church, the physical cause of the plague appears to have remained unknown. On the other hand, the Muslim lands were also unable to curb the spread of the plague and casualties were high even in Cairo despite the Qalawun Bimaristan. However, physicians in bimaristans endeavoured to understand the cause of the plague based on empirical evidence.

3.3 Influence of bimaristans throughout Europe

The influence of bimaristans is still acknowledged in places across Europe today. In the scholars pavilion at the UN office in Vienna are situated statues of Muslim physicians Rhazes (from the Arabic *Muhammad ibn Zakariyya al-Razi*, d. 925) and Avicenna. Chaucer (d. 1400), who is considered to be the founder of English poetic tradition as well as the greatest English poet of the Middle Ages, also included Rhazes and Avicenna among the greatest physicians ever known alongside Aesclepius (c.1250 BC) and Hippocrates [45].

Among the reasons why Europeans in the Middle Ages cherished the Muslim legacy was perhaps because much of European history would have been lost forever had the bimaristans not preserved European medicine. In 814 CE, after the death of Charlemagne, Latin European culture began to fade. However, this culture survived in Toledo, Spain [46]. Archbishop Raymond de Sauvetât (d. 1152) of Toledo established a translation institute where Arabic manuscripts, which were received from various locations, were translated into Latin. These Latin translations were then shared throughout Europe especially in France and Germany in the 17th century. Seeking medical knowledge from books, however, was still secondary. Bimaristans were the primary locations where medical knowledge was acquired first-hand.

Bimaristans offered an opportunity for physicians, and medical students, men and women, to pool their resources together becoming a place of medical training. Cordoba alone consisted of 50 major hospitals that treated physical and mental illnesses [47]. This new phenomenon gave rise to medical institutions emerging in Western Europe such as in Salerno, Padua, and Bologna in Italy, and Montpellier and Paris in France [46]. The harmonious relations between the Islamic East,

Andalusia, and the Latin West in the 12th to the 14th century gave rise to European medical institutions that were comparable to bimaristans, such as the Hospital of Our Lady Mary of the Innocents in Valencia [48].

3.4 Patient-centred health care system

Bimaristans considered the needs of the patients and their families. In broad terms, these needs included spiritual, mental, physical, and social needs [49]. As the patients were most likely to have a religious affiliation, bimaristans included separate prayer rooms for the patients. For instance, the Bimaristan Al-Mansuriin Cairo contained prayer areas for Muslims and other followers of the Abrahamic faiths [50]. Areas of worship were included not only in hospitals but medical treatment was also made available to travellers on their way to Makkah. Understanding the importance of the annual Hajj for Muslims, road bimaristans were also set up by philanthropists [51].

The bimaristans also considered the social needs of the patients. Muslim communities tend to value gender-specific services. Furthermore, bimaristans were needed in villages and rural areas as much as they were needed in cities. The Qur'an also encourages showing kindness to prisoners and so free medical care was also made available to prisoners [52].

The wards in bimaristans were separated by diseases as well as gender [53]. The Bimaristan Al-Mansuri had many specialised wards. The hospital itself had two sections: one for men and the other for women. This aspect is important in Islamic culture as Muslim women tend to avoid exposing their bodies unnecessarily, especially to men outside of their families. However, since medical examinations may require exposing the abdomen or genitalia, men and women were provided with separate wards and where possible, women were treated by women. Catering for such needs inspired women to take up a career in medicine.

Considering the wider communities; those in the villages and peripheries, Isa ibn Ali Al-Jarrah (d. 946) wrote to the Abbasid Caliph Al-Muqtadirbillah [54]:

I thought of people who live in the peripheries and that among them are patients who do not receive any medical care because there are no doctors there. So, assign - May God prolong your life - some physicians to visit the peripheries; also a pharmacy containing drugs and syrups. They have to travel all through the peripheries and stay in each region

enough time to perform treatment of patients, then they move to another one.

Likewise, Isa wrote regarding prisons:

I thought - May God prolong your life - of the imprisoned and they are exposed, due to their big number and their hard situation, to diseases; they are incapable to deal with their excretions or to meet doctors to seek their advice about diseases. You have - May God grant you honor - to assign physicians to visit them daily and they should carry with them drugs and syrups and all they need to treat the patients and cure illnesses with God's will.

This call was answered by Al-Muqtadir and a bimaristan for prisoners was built in circa 919, which was financed with 200 dinars monthly [54].

The bimaristans also made efforts to minimise patients' anxiety and worries. Bimaristans were constructed on sites with fresh air and which were aesthetically pleasing. For instance, when Rhazes searched for a place in Baghdad to establish a bimaristan, he chose a place where pieces of meat would take the longest to rot [55]. Bimaristans also appear to have promoted the restoration of health where patients felt that they were not left to die. Instead, bimaristans were built within the cities where they could be visited by families and friends and hope to rejoin society upon recovery. Bimaristan Al-Adudiwas built by the River Tigris. The water from the river would flow into the courtyard of the bimaristan and through the halls before it reconnected to the Tigris [56][57].

Perhaps, the greatest worry for patients is not understanding the information they are given. Prophet Muhammad taught to speak to people in a manner that was comprehensible for the audience and to avoid esoteric language. He was known to be succinct and repetitive in his main points and the hadith literature contains a plethora of similes, examples, analogies, as well as questioning the audience to assess their understanding. Low health literacy is likely among the elderly and ethnic and racial minorities [58]. When Salman, the renowned elderly Persian immigrant companion of Muhammad, fell ill on one occasion, Muhammad checked on his well-being in Farsi [59]. An interesting parallel to note is how Muhammad himself welcoming foreign words led to hospitals in Arab lands to be known as bimaristans; derived from *bimar* – a sick person, and *-stan* - place, meaning 'a place where patients reside' [60]. The very use of this Persian word in Arab lands reveals a process of international social

healing and leaving behind old enmity. In medical practice, the physicians in the bimaristans would be expected to speak to patients in a way that was accessible to the patients to increase adherence.

Furthermore, as soon as patients were admitted to the bimaristans, their clothes and possessions would be kept safely in a place of trust by the security team [61]. Patients were also separated into different wards according to an initial diagnosis. Three separate halls would be found which were allocated to patients with a) internal diseases, b) patients with trauma and fractures, and c) communicable diseases. Because contagious diseases are highly likely to create fear and panic among patients, they would not be kept in the same halls. Likewise, patients with severe mental illnesses exhibiting aggression were also isolated safely and securely [62].

Along with bimaristans being known as places for the sick to seek medical treatment, they were also appealing for trainees to learn medical knowledge and specialise in different fields of medicine and surgery. The medical education system was based on an Islamic ethos of valuing everyone involved in the bimaristans, from respecting the senior staff to helping develop the junior staff and creating an overall supportive work environment. The participation of children in bimaristans is also noteworthy. Children would volunteer to help with administrative tasks [63].

Such practises reveal clear cultural differences between now and the Middle Ages regarding child labour. Nevertheless, inspiring future generations to value health care can be promoted in creative ways. During the COVID-19 pandemic, a group of enthusiastic children from different ethnicities created videos in Bengali, Gujarati, Punjabi, and Urdu among other South Asian languages to encourage the elderly in their communities to take the vaccine [64].

4. Bimaristans as educational institutes

The educational aspect of the bimaristans focused on the importance of a positive rapport in the doctor-patient relationship. Faith and spirituality also appear to have played a major role in motivating health care providers to build resilience to their career challenges and avoid burnout.

4.1 Mentor-trainee relationship

The education system involved senior staff being role models for trainees and junior staff. From the onset,

despite the hierarchy of the staff and management structure, the Qur'an states, that 'above anyone who possesses knowledge, there is one with greater knowledge' [65]. This verse helps to reduce hubris and instil a realisation within the workforce that every individual has something unique to offer. Prophet Muhammad himself once said to a physician, 'Allah is the one who cures, you are the one who is gentle' [66]. This hadith promotes a patient-centred attitude whereby the role of the physician is to be gentle with the patient who is experiencing a difficult time, whether that be through for instance CPR or heart surgery. The hadith also promotes the idea that the medical staff are a means through which healing occurs. This idea is internalised and expressed by Muslims in the expression '*Qaddarallah*' meaning 'As Allah expected'; a phrase that would have also resonated with Christian physicians through Christ's parable of the Master and servant [67].

To be a part of the healing process in bimaristans, however, required training and showing competence. Notably, bimaristans promoted the assurance that physicians needed to be accredited and licensed by senior physicians to practise medicine [68]. Arguably, in 1207, the Qarawiyyin University in Fez honoured Dr Abdellah Ben Saleh El-Koutami as the first physician to have been awarded Doctor of Medicine. The document, which survives until today, highlights that physicians were expected to be spiritual as well as have excellent relational skills [69]. This approach is what likely gave rise to an unprecedented high quality of medical practice. Physicians also specialised in different diseases. The specialities gave rise to the separation of patients in different wards depending on the nature of the diseases.

Clear expectations were made known to trainees. When Adud Al-Dawlah (d. 983) established the bimaristan in western Baghdad, he made known that out of a hundred physicians, only 24 would be selected for work [54]. Physicians were also reminded that they would be held accountable in the case of any death. Physicians were, therefore, expected to keep a record of all the medication they prescribed until the patient was either cured or died [70]. If a patient died, then the chief physician would review the prescriptions to evaluate the treatment and conclude whether the death was natural or due to negligence. In the case of negligence, the physician was held accountable and was liable to pay blood money to the family of the deceased. The records themselves would be archived for future research. Training the staff to perform their duties competently was, therefore, of great importance at the bimaristans [71].

'Make matters easy, do not make them difficult', instructed Prophet Muhammad [72]. Bimaristans made efforts to make easier the lives of staff and patients. Staff members were provided with all the medical instruments and apparatuses that were necessary for the time. Pharmacies, known as *Khizanat al-sharab* or *Saydaliyah* were annexed to bimaristans so that medication, syrups, and drugs were readily available [73]. The etymology of the English noun 'syrup' is of Arabic origin from the word *sharab* meaning beverages [74]. The word was adopted as a result of the widespread medicinal syrups that were made available throughout European dispensaries based on recipes prepared by chemists for the bimaristans [46].

Prophet Muhammad was a strong advocate of documentation as is evident from the Qur'an, which encourages documenting financial transactions [75]. Muhammad allowed prisoners of war to free themselves by teaching literacy skills [76]. Muhammad himself would often use his staff to draw diagrams in the sand to visually explain abstract concepts. This combination of writing and illustrations was also encouraged among Muslim physicians which led to grand medical libraries. For instance, Egypt's Ibn Tulun Bimaristan is known to have had a collection of over 100,000 books on medicine [77].

Leading physicians supported fellow physicians in the medical field by authoring instruction manuals. For instance, Albucasis (from the Arabic *Abul Qasim Al-Zahrawi*, d. 1013) wrote his 30-volume medical encyclopedia *Kitab al-Tasrif li-man 'Ajizja 'an al-Ta'lif* (meaning 'The arrangement of medical knowledge for one who is unable to compile a manual for himself') [78], in which he wrote sections on medicine, orthopaedics, ophthalmology, pharmacology, and nutrition [79] and discussed over 300 diseases and their treatments [80]. The last volume also describes surgical procedures and instructions on how to use more than 200 surgical instruments. Albucasis described ways to treat congenital hand deformities such as polydactyly and syndactyly as well as ways to treat hypospadias and genital reconstruction. Other procedures which Albucasis covered include oculoplastics, eyelid surgery, gynecomastia, and breast surgery [81]. The work was first translated into Latin in 1519 under the title *Liber theoricæ et practicae Al-saharavi* and served as a reference guide in Europe until the 18th century. The most eminent surgeon of the European Middle Ages Guy de Chauliac in his work *Chirurgia magna* (meaning 'Great Surgery', completed in 1363), quoted *al-Tasrif*

over 200 times [82]. An instruction to ‘Seek knowledge even unto China’[83] is also attributed to Prophet Muhammad. Such instruction may have alluded to learning Chinese medicine. Excelling in response to this instruction, Muslim physicians reached a reputation to the point that the Chinese came to learn medicine from Rhazes [84].

4.2 Appreciating the diversity of staff

The practice of medicine is a joint global contribution of many civilisations and is inextricably intertwined and one which requires diverse representation [85]. The senior medical team in bimaristans would consist of diverse members. Prophet Muhammad valued and promoted diversity and appreciated the invaluable experience of those around him irrespective of gender, religion, and race. Muhammad’s caller to prayer was Bilal, an Ethiopian who was once a slave in Makkah; Muhammad acted on the advice of Salman when the latter advised digging a trench around the city; a Persian military tactic. At the treaty of Hudebiya, Muhammad was the first to terminate his pilgrimage after being advised by his wife Umm Salama. At a time when the status quo was for free Arab men to make important decisions, Muhammad demonstrated the value of allowing a voice to all people. Such opportunities inspired women to lead in medicine [86]. Bint Shihab al-Deen, in 1627 became the *masheekhat al-tibb*, meaning the chief physician at the Bimaristan Al-Mansuri. Such an ecumenical approach inspired bimaristans to also create opportunities to collaborate for leading physicians irrespective of religion, gender, and race [87]. Bimaristans became the discussion place for physicians who were interested in challenging Galenic medicine; they were welcomed by Muslim physicians who were interested in looking at medicine through the lens of Islamic medical ethics.

With Muhammad’s descendants marrying into other cultures, this would have made working with Arab Muslims easier for people of other faiths, as well as non-Arabs. Al-Mansur established the Bait al-Hikma, meaning the house of wisdom. This institute became a library of academic work. Great scholars of Syrian, Hebrew, and Persian heritage belonging to several faith groups including Islam, Christianity, Judaism, and Zoroastrianism, gathered to translate Greek, Latin, and even Sanskrit works into Arabic.

The collaborative environment of bimaristans also promoted the idea that even senior physicians had much to learn from other scholars. This attitude would then be instilled within the trainees, who would also realise that

mistakes are inevitable, however, the more effective the collaboration, the better the outcome would be moving forward. The physicians worked in shifts to ensure that senior physicians were available to support the trainee staff morning and night [88]. Trainees would gather around the senior physicians to learn how to examine patients as well as learn the way to appropriately interact with patients. Aside from teaching trainees practically, medical theory was also taught through lectures. Theoretical medical knowledge was taught through lecture rooms and libraries as was found in the bimaristans at Baghdad, Damascus, and Cairo in the 10th century [89].

The trainees in these bimaristans would enter the field knowing that medicine would be a challenging career yet one that would be spiritually fulfilling. The senior staff would foster the resilience that trainees needed through positive and active behaviours; that is by demonstrating hard work, constant reflection, and discussions on ways to improve by challenging and pushing the boundaries of medicine.

The spiritual and religious aspects of bimaristans are likely to have played a large role in inspiring and motivating trainees to build the resilience required for a career in medicine. Leading physicians also held prominent religious status; Averroes (from the Arabic *Ibn Rushd*, d. 1198) was a leading jurist of the Maliki school of Islamic jurisprudence and also held the position of chief judge in Cordoba. Ibn al-Nafis (d. 1288), a pioneer physician in the history of Islamic medicine who worked at Bimaristan Nur al-Din (see images 5 and 6 below) in Damascus also worked later in Cairo as a leading Shaf’i jurist [90]. Part of the Muslim culture of the bimaristans was the prohibition of drinking alcohol, gambling, and any other addictive behaviour for entertainment or celebratory purposes, or to relieve stress. Excessive alcohol intake, drug misuse, and relationship breakdown are all associated with burnout, which could adversely affect patient care [91]. The Islamic alternatives would be to enjoy non-alcoholic feasts, gifting, and establishing a culture of praise and gratitude. Trainees would view success as a blessing and view failure as understanding that they were still on a journey.

4.3 Cultivating a trusting doctor-patient relationship

Islamic medical ethics also focuses on trust between the doctor and patient. *Ishaq ibn Ali Ruhawi* (d.931) wrote extensively on the doctor-patient relationship in his most celebrated work *Adab al-Tabib* (Practical Ethics of the

Physician)[94]. Trust could be built on a physician's experience or knowledge about a specialised area of



Figure 5. Bimaristan Nur al-Din from the inside (Damascus, Syria)[92]



Figure 6. Bimaristan Nur al-Din from outside (Damascus, Syria)[93]

medicine. However, there are additional factors that could be at play, which may affect the doctor-patient relationship. Many fatwas related to medicine often focus on the doctors themselves as the subject of the fatwas [95]. Considering the socio-cultural interests of Muslim patients, a patient's level of anxiety and distress may be caused as a result of a negative experience [96]. For many Muslim patients, the doctor's gender, the language of communication, personality, and moral conduct all play a role in the decision-making process when seeking medical treatment. A negative experience or an experience that does not meet the expectations of the patient may affect a patient's decision to take any

prescribed medication and may also result in the patient not returning for a second visit [97].

From an Islamic perspective then, the first encounter between a patient and the doctor requires meeting certain expectations that include a range of aspects including the characteristics of the doctor as well as meeting socio-cultural requirements. Importantly, this aspect of medical ethics should be valued especially because the first interaction has intrinsic value as well as it could have an impact on relevant clinical outcomes [98].

5. Lessons to learn from bimaristans

A greater focus on diversity and welcoming different perspectives in the NHS could help pool together a wide range of experiences. Bimaristans were places that attracted patients and physicians from different places due to their ecumenical approach to inviting a diverse team to advance in the field of medicine. The attitude of the workforce in bimaristans influenced European medicine whereby comparable institutes began to emerge across Europe. Physicians and trainees in bimaristans were supported in an environment that focussed on the patients' well-being whilst highlighting that physicians play a vital part in the medical process. The motivation to be a resilient member of this process was nurtured through the spiritual ethos of the bimaristans.

Although religion at the workplace remains a private matter, perhaps religion and spirituality are reaching a stage where its mention creates unease or even discrimination. A physician's faith and belief are likely to play a role in building a strong work ethic [99]. Moreover, referring to such a great period of history as the 'dark ages' is ironic if health care providers are kept in the dark about the great medical, surgical, and pharmaceutical advancements that were taking place [100][101]. Positive and constructive discussions on faith and medical history may prove to be healthy to understand better what motivates health care providers. On the other hand, institutional racism and a legacy of mistreatment of patients have led to a lack of trust in the NHS as has been shown in the reluctance of ethnic minority groups to register as organ donors as well as in their low uptake of vaccines [102]. In medical textbooks, a representation of influential male and female physicians from the Middle Ages from various cultures and places could prove to be more inviting to medical students.

Bimaristans appear to have provided the workforce with the essential equipment and tools needed to complete jobs effectively - either through government funding or

through the *awqaf* system. Such funding sources could be used in our time to set up courses on building interpersonal and soft skills. Additionally, health care staff could be taught cultural competence to better support patients. Translation services could also be developed with such funds. Moreover, the idea of funding evening clinics may help address the concerns of Muslim patients in Ramadan when they are likely to avoid medication and appointments during daylight hours due to devoting time to religious matters whilst fasting [103].

Importantly, the workforce at bimaristans was the driving force behind medical advancements. The workforce was a product of the modest and resilient culture that was promoted within the bimaristans. Hospitals today provide cutting-edge treatments using advanced technological tools that were unimaginable in the Middle Ages. However, we need to remind ourselves that patients expect to build rapport with trustworthy human physicians before agreeing to the use of any sophisticated technology.

The NHS in many ways mirrors the once-great bimaristans. The NHS continues to attract physicians from around the world. In 1971, 31% of all doctors in England were born and qualified abroad. By 2016, over 9,200 of the 29,200 Muslim staff held specialised positions. Of the 61,900 doctors who were asked about their religion, 15% disclosed that they were Muslims. Interestingly, 15% is an over-representation since the Muslims make up only 5% of the national populace [104]. Muslim health care providers in the UK today do not work separately in bimaristans but rather make up the very fabric of the NHS. British Muslim organisations like the British Islamic Medical Association (BIMA), the Muslim Doctors Association (MDA), AlBalagh Academy, and Muslim Doctors Cymru (MDC) continue to promote Islamic medical ethics, offer a platform for physicians to engage in academic research, and help junior doctors develop personally and professionally. Furthermore, during the COVID-19 pandemic, a number of British Muslim communities offered their local mosques as vaccination centres [103].

Further collaboration between the NHS, Public Health, and current Islamic medical organisations could help to refine medical ethics, raise standards of health care, deliver a better patient-centred health care system, and create an inclusive educational culture wherein senior staff and trainees of all backgrounds can take pride in their careers. Moreover, greater inclusion efforts are likely to attract philanthropists. In closing, for health care

providers to attain cultural proficiency - valuing pluralism, respect, and openness to diverse ways of viewing health care are strongly advised.

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A Rare and Magnificent Manuscript on Ophthalmology (*Al-Kafi fi al Kuhl*)

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The book will be discussed in this article is *Al-Kafi fi al Kuhl*, The Sufficient in Ophthalmology, which was written by *Khalifah Ibn Abi Al-Mahasin Al-Halabi* (D 656AH=1256 CE).

The first medical historian to mention this book and bring it to the attention of the medical historians' community was the famous French medical historian Lucien LeClerc, who in 1876 wrote briefly about the then only known copy of the book in the Bibliotheque Nationale in Paris (Number: 1043 B Arabe) (1). Since then, many other historians came to mention the book and discuss its contents scientifically and artistically.

Carl Brockelmann (1868-1956), the famous German orientalist historian and biographer, mentioned the book and CITED a second manuscript in Istanbul, Turkey in the *Sulaymanieh* library (YeniJame 924) in his book entitled *Geschechte Der Arabischen Literature* published in Berlin in 1902 (2).

In 1905, the famous orientalist, ophthalmologist, and the founder of the field of the history of ophthalmology, Julius Hirschberg, (3) along with another two orientalists, J. Lippert, and E. Mittwoch, wrote a book entitled *Der Arabischen Augenarzte, or The Arabian Ophthalmologists*, in which they studied the book in great detail and translated select sections into the German language based on the two known manuscripts. The book was translated into English and published in Riyadh, KSA (4).

It is very surprising to notice that the outstanding books written by famous Arabian historians and biographers have neglected to mention this book, especially Ibn Abi Usaybia who wrote the most accurate and reliable medical biography entitled *Uyoun Al-Anbaa fi Tabaqat Al-Atebba*, especially since they were colleagues and studied

medicine in Al-Bimaristan Al-Noorin Damascus, Syria, under the same mentor the famous (*Al-Dukhwar*). And what is more surprising is that most of the modern-day biographers, such as Al-Zirkly, Kahhale, Diab, etc. have ignored the book and its author. The only brief mention of the book was by the late Prof. Kamal Al-Samarrai(5).

As mentioned above, there are currently two known manuscripts of this book:

- 1- The Paris manuscript in the Bibliotheque Nationale, the recent number (Arabe2999)
- 2- The Istanbul manuscript in the *Sulaymanieh* Library, the index number (YeniJame 924)

In this article, we will focus on the Istanbul manuscript because it is complete, well organized, neatly written in *Naskh* calligraphy (1560CE), more recent than the Paris Library manuscript (written in 1274CE), and very well illustrated.

The manuscript consists of 230 folios, well organized in terms of chapters and sub-chapters; it is important because it was written towards the end of the peak of the Arabic/Islamic civilization era, followed by only four books written in the field of ophthalmology, namely:

- 1- *Al-Muhadhab Fi Al-Kuhl Al-Mujarrab*, written by Ibn Al-Nafis(1210-1280 CE) (6)
- 2- *The Light of the Eyes and the Collector of the Arts*, written by Salah Al-din Al-Kahhal Al-Hamwi (D1296CE) (7)
- 3- *Uncovering the Disorders of the Eye*, written by Ibn Al-Akfani (D1348CE) (8)
- 4- *The Ophthalmologic Support of the Eye*, written by Sadaqah Al-Shadhili, (D1360). (9)

The significance of this book lies in the following facts:

- 1- It summarizes most, if not all, that was written in this field prior to its time.
- 2- The author quoted 72 authors and 41 books and pharmacopeias starting with Hippocrates up until his time and gives credit to each author and book.
- 3- It is the first book to elegantly illustrate the anatomy of the eye globe, the optic nerves, the optic chiasm, the optic pathway, the occipital lobe, the four cerebral ventricles, and the Dura mater and the Pia mater (Fig. 1). This illustrates the cross section of the eye globes with great details to the location of the lens behind the iris, the pupil in the middle of the iris, the three coats of the eye, the sclera, the choroid and the retina, the optic nerve, the chiasm, the optic pathway, the four ventricles of the brain, and the small circle behind the chiasm which we believe to be the pituitary gland, but he didn't dare to name it. One can see the occipital lobe where vision takes place as well as the periostium labelled in Arabic.
- 4- This illustration was used as the emblem to the American Academy of Ophthalmology's annual meeting in Dallas, Texas in 1987, without giving reference to the original drawing (Fig. 2).
- 5- It is the first book to place the ophthalmic surgical instruments in very elegant tables, with the drawing of the instrument, its name at the top, and the way to use it below (Fig.3).
- 6- It is the first book to classify the eyelids and the eye diseases in well-organized tables (Fig. 4).
- 7- It is the first book to describe the measurements (weights and volumes) necessary for accurate medication ratios. Those measurements were more precise than what was mentioned in Ibn Sina's Al-Qanon.
- 8- It is the first book to dedicate a whole separate chapter to meticulously describe the technique of venesection (bloodletting), which seems more precise compared to what Ibn Sina wrote in Al-Qanon.
- 9- 8-For the first time in history, it describes the use of the magnet to extract a broken piece of a couching needle from the eye.

It is worth mentioning that this book was edited by M. Zafer Wafai, MD and the late Prof. M. Rawwas Kalaaji, Ph.D., and was published by the Islamic Educational, Scientific and Cultural Organization (ISESCO), Rabat, Kingdom of Morocco, 1990 (Fig.5).

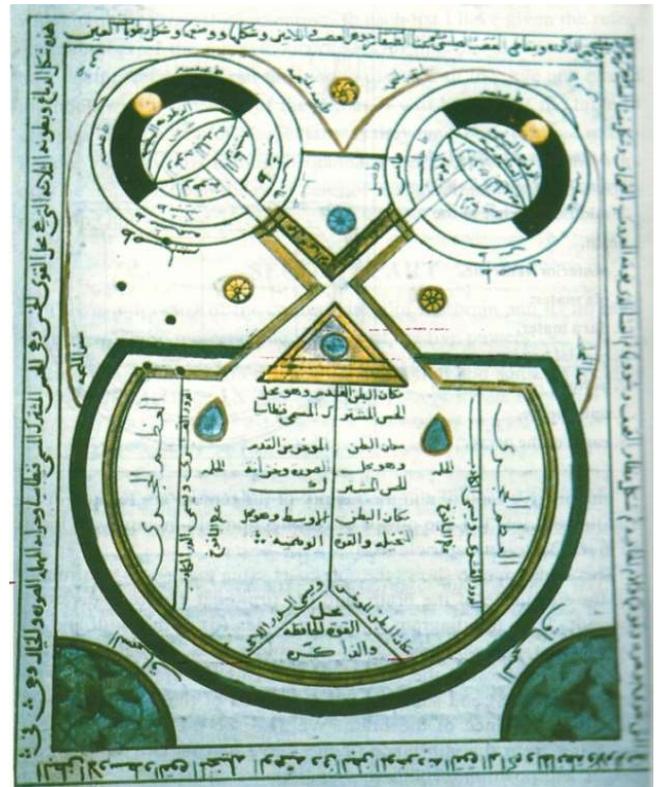


Fig.1 An illustration of the anatomy of the eye.

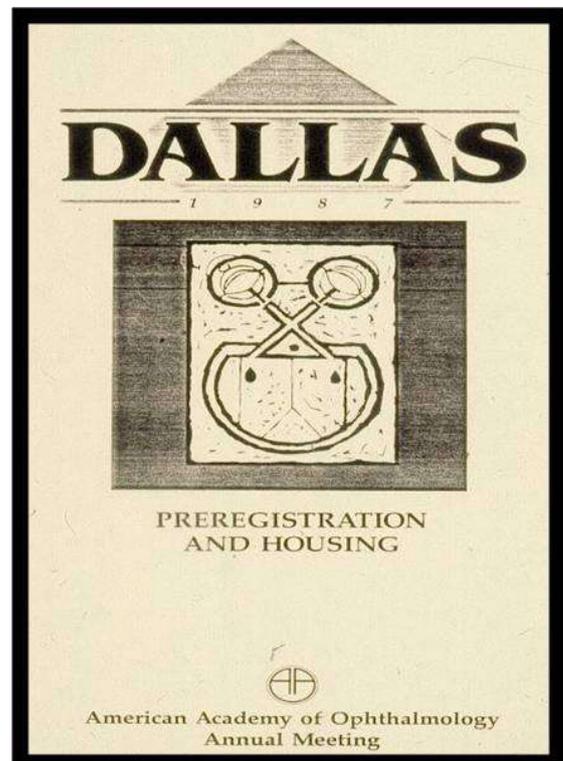


Fig. 2 The program cover for the Academy's 1987 convention in Dallas, TX.



The third page showing the Surgical Instruments - Istanbul Manuscript.



The Surgical Instruments as appeared in Istanbul Manuscript

Fig. 3 The ophthalmic surgical instruments, organized into tables for the first time.



Fig. 4. Classification of eyelid and eye diseases in organized tables.

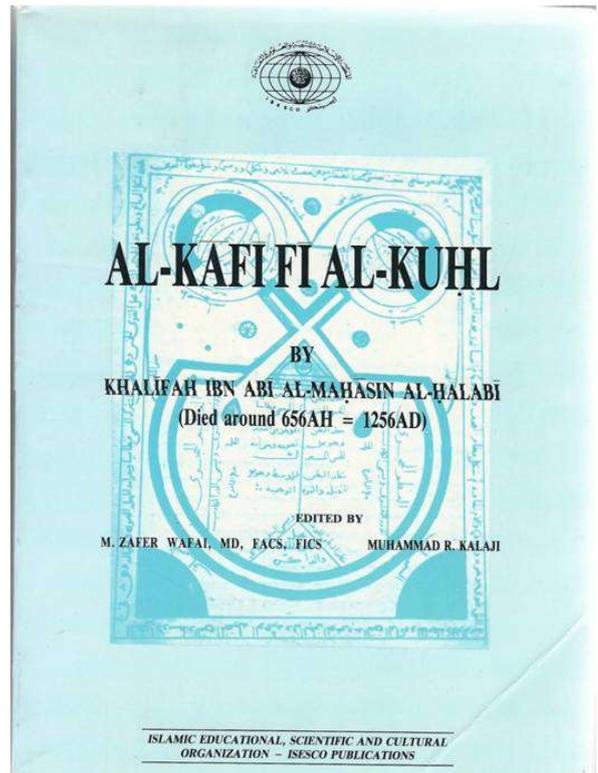


Fig. 5 The cover of the newly edited and published copy of Al-Kafi Fi Al-Kuhl, 1990.

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Muslim Communities & COVID-19 : Challenges & Reflections

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Introduction

When I think of what has been achieved and just how much has changed, I am astounded. The sense of unity that was borne out of adversity, the unrelenting service provided by those on the frontline and of course the compassion and care every one of us shared towards each other – all a reminder of our common humanity. I take this time to share the Muslim Council of Britain's experiences; critical challenges, opportunities, and recommendations for what could have been done better. I also express my thanks to the British Islamic Medical Association (BIMA) and the wider healthcare community; this was a public health emergency, and we could not have been prouder of the leadership you have shown, the sacrifice made and legacy that has been left.

The challenges

The onset of the pandemic was a time of much confusion and uncertainty for British Muslims. On the 16th of March the MCB issued a statement strongly recommending mosque leaders to suspend congregational activities, realising the critical nature of the situation. This was a week before the government-mandated and was essential for the protection of life (1).

The MCB facilitated a national platform for affiliates and non-affiliates to come together to provide a national plan of action and response. The MCB also set up several COVID Response Groups, ranging from Mosques, Charities, Mental Health, to Economic and Burial, these served as platforms for coordinated action (2).

Given this was a public health emergency, the MCB affiliate, the British Islamic Medical Association (BIMA) helped lead in formulating timely guidance for communities about the virus.

Bereavement & Loss

One of the first major concerns from Muslim communities was a proposed measure by the government to potentially cremate all COVID-19 deceased. The MCB collaborated with the National Burial Council to provide clarity on the latest guidance and ensure those who passed away would get the utmost respect at end of life. Mosques worked relentlessly to find ways to support families, ensuring compliance with regulations whilst delivering religious rites in the most sensitive way possible. (3)

I also pay tribute to the first deaths of COVID-19 which were Muslim doctors and nurses on the frontline, they gave the ultimate sacrifice for our safety. My prayers are for their families and that they may be granted the highest abode in heaven. (4)

Guidance & Communication

Another key challenge for our communities was the frequency in which the guidance was changing, causing confusion both at national and local levels. Given the reach of the MCB and its trusted reputation across Muslim communities, the MCB with the support of BIMA was able share timely and critical supplementary guidance across all social media platforms including WhatsApp. This guidance included easy to understand info graphic posters and multi-language formats, easily accessible and thus enabling immediate implementation by all. (5)

The MCB hosted over 50 webinars with partners across sectors, with hundreds of attendees (in one case over a thousand). These sessions covered issues from improving health and safety standards in mosques, combating vaccination fake news, hajj and umrah updates, to advice for parents in lockdown. (6)

A particularly difficult time for Muslims, myself included, was during Ramadan 2020 - the first Ramadan in history where we could not go to the mosque, meet our families, and break the fast with neighbours and friends. This of course also meant the Eid ul Fitr festival was also impacted with last-minute changes to government guidance resulting in local lock downs in some areas just hours before celebrations were to begin. (7)

The opportunity for good

Despite these challenges, British Muslim communities continued to show great resilience. Although Mosques were physically closed to their congregations, they continued to serve their communities in even more ways than before. Muslim communities still found ways to share in charity - thousands of hot meals distributed, food hubs set up to support the poor and vulnerable, meals provided for key workers on the front line, whilst providing essential counselling and spiritual guidance.

There are many stories of forgotten communities, from the refugees living in hotels like prisoners to hundreds of international students without recourse to jobs or food. It was down to foodbanks in local mosques and other places of worship to be a lifeline when it mattered most.

Imams and scholars also helped to promote the campaign for vaccine uptake and NHS plasma donation - producing videos in different languages and utilising inter-generational homes to convey key messages to encourage the elderly to get vaccinated.

Innovation with the use of technology has also played a great role in widening access and helping mosques provide essential pastoral care and support. Talented Imams and madrassah teachers switched to online services (e.g., up skilling and training to use Zoom/Teams/YouTube etc).

Moving Forward

The prevalence of large-scale and institutional racism and inequality have been further highlighted during the pandemic. The death of George Floyd sent ripples across the globe and awoke a new conversation about the society we wanted versus the one we had. Now young people are demanding a more equitable future, one in which diversity is embraced.

It was also quite apparent, how COVID-19 highlighted prevailing health inequalities with the disproportionate deaths of ethnic minorities from the virus. These are also

related to social and economic barriers; Muslim communities are in some of the most deprived areas, lowest income jobs with large families often living in cramped accommodation. It is one of the MCB's key priorities, as we come out of this pandemic, to help address these legacy inequalities by working in partnership with decision makers to effect the change we need. (8)

The role played by Mosque, imams and communities has been truly remarkable. Without these efforts and sacrifice, we could not have achieved as much progress as we have done in both the vaccination effort but in also taking care of the most vulnerable in our society. This partnership will be essential with the surge of mental health and the ongoing healing from bereavement and loss. (9)

Finally, our government and decision makers have much to heed. They must work with local communities who understand how to effect change and not continue to cherry-pick "community representatives" who do not have local credibility. They must appreciate the importance of tackling structural barriers and inequalities and create policies where the most marginalised are not left behind. Further they must acknowledge the role that Muslim communities have played not just in relation to the pandemic but for the future of the country. We need inclusive politics and leadership that speaks for the diversity of communities they represent.

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Islam and Public Health

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The NHS (England) defines public health as about helping people to stay healthy and protecting them from threats to their health. Sometimes public health activities involve helping individuals, at other times they involve dealing with wider factors that have an impact on the health of many people (for example an age-group, an ethnic group, a locality, or a country).

Acheson defines public health as **“the science and art of preventing disease, prolonging life and promoting health through organized efforts of society”**.¹

Islam claims to be a system of life that covers all aspects of human life. In Arabic, it is named as a *dīn*, which is translated as a way-of-life. And any system which addresses human needs will have to encompass the human necessities for mind, body, and soul. Indeed, the concept of the body is fundamental, as it is viewed as a vehicle, through which a person will carry the mind and soul.

The Prophet said, “The animal that doesn’t stop for rest will not cover any ground, nor will it remain long.”² Giving the similitude of the body as the human vehicle. Islam addresses the care one should undertake for the body, by providing general and specific notions which enable the individual to maintain optimal health or at least attempt to.

In the primary Islamic texts, we find multiple indications which point towards healing and cure, and driving important notions in public health, although not defined as such due to it preceding the terminology. In modern times, as we understand public health, and this field has become vital in developing communities, we can reflect on the Islamic messages and associate them with this discipline.

The emergence of Islam dates back in the seventh century when medicine was very much in its primitive state; and much relied on from traditional practices and herbalist remedies. Having said that, it does not mean

that these are of a lesser quality. Herbalist remedies tend to work on generalised approaches and aim at a holistic approach. And this is why we note from the Islamic medicinal principles, there is reference to remedies which deal with wider concepts, aimed at prevention, reducing inflammation and strengthening the immune system.

Islam as a practice which claims divinity in its sources, is unique in being preserved with great accuracy. It is very possible that much of Islamic practice are indeed found in the early traditions of other Prophets, who may not have had their tradition accurately or fully recorded. In contrast, the Prophet Muhammad’s words and sayings are highly preserved and greatly scrutinised for their authenticity. Being a religion, much of the practices are linked to an individuals’ rituals and worship, and this allows for better compliance. We know that those who have a belief system or engage in spirituality are more adherent to medicinal regimes, as they have better outlooks.³

Prevention is better than the cure

Great emphasis is placed on prevention within the Islamic Public Health messages. The prevention elements are included in the whole discourse of good decisions in daily living, from eating to cleanliness and taking appropriate precautions.

The importance of cleanliness

Importance is put on cleanliness of the body as well as the spirit. The Prophet’s saying, “Cleanliness is half of faith”⁴ puts great emphasis on the importance of maintaining cleanliness in all avenues. A further saying, “God is clean and loves cleanliness”⁵ encourages a god-conscious individual to strive towards that which is loved by God. Another quotation from the Prophet: “Cleanse with all that you can, for Allah has built Islam on cleanliness, and the only ones admitted to Paradise are those who are clean.”⁶

Regular Washing and Clean water ⁷

Despite emerging in a desert environment with limited water resources, Islamic teaching gave precedence to using water for regular washing as part of acts of worship. Muslims are required to carry out *wudu'* (ablutions) prior to engaging in the five daily prayers. *Wudu'* involves the washing of those limbs that are apparent and used the most in daily life and interactions, namely the face, arms, and feet.⁸ Additionally, a full wash to encompass the whole body is encouraged on a weekly basis, when attending public gatherings. It is made mandatory following acts of intimacy between spouses and following the end of a woman's monthly cycle or post-natal bleeding.⁹ Linking the obligation to these acts further promotes regular full washing.

We know that regular washing is of great benefit for the individual, as it is a mode for cleansing and removing dirt, dead skin and reducing pathogens. Whilst it might be common knowledge today, past societies considered washing to be a privilege, with anecdotal evidence describing how people washed once a year on average.

Washing of hands before and after food

The Prophet said, "Of the blessing of food is to make ablution before it and after it."¹⁰ Some commentators say that the ablution referred here is a reference to the washing of hands as opposed to the full ablution. This practice has important consequences in the reduction of oral-faecal diseases such as typhoid and cholera¹¹ as well as overall reduction in infection.¹²

Cleaning of impurities

Islam identified certain items are filth, which require to be cleaned of the body, clothes, and floor. The purification from these items further promotes health, as these items are potential carriers of pathogens. These include urine, stools, blood, pus, vomit, dead carcasses, etc. When a man got up and urinated in the mosque, the Prophet instructed to get buckets of water to pour over the urine to wash away the filth¹³. We know that bodily fluids do carry pathogens and can be media for growth. During the 7th Century, there was no understanding of Microorganisms, which came much later in the 19th Century.¹⁴ Meanwhile, in the ancient Western World,

Romans and other Europeans were washing their clothes in urine used as a stain-remover to dissolve grease, loosen dirt, and bleach yellowing fabrics. Classifying dead carcasses as filth also directly impacted on health, as it meant avoiding these items from one's diet.

Dental Health

Great emphasis is placed on oral health, as openly demonstrated by the Prophet Muhammad, and preached. There are substantial texts in which he encourages tooth brushing on different occasions, more than the twice-a-day regime advocated by modern dentists.

In addition to this, he has been reported to brush his tongue as part of the routine. Whilst the benefits of tongue brushing for general oral health isn't established¹⁵,¹⁶, it has definitely been demonstrated to help with halitosis.

The encouragement of regular tooth brushing is an important preventative tool in preventing dental caries and gingivitis and periodontitis, coupled with the favourable outcome of fresher breath.

Nasal Irrigation

One of the steps in the Muslim ablution is the nasal irrigation. It is described as sniffing up water through the nose, and then to expel the water thereafter. Some accounts encourage to be extreme in his process when one is not fasting.

A clinical review and literature review by Lance *et. al* demonstrated the benefits of nasal irrigation in dealing with nasal symptoms.¹⁷

Usage of right and left hands

Islam introduced a system to its followers which encourages a demarcation between how hands are used. 'Aishah reported that her husband the Prophet preferred the right hand for his eating/ drinking, and his left hand for his cleansing.

By following this system, there is clear demonstration of potential reduction in spreading contaminants that may come from one's nose or indeed from back passage.

Healthy gut

There is a great need for better gut health. Modern medicine has placed great weighting on having a healthy gut.

Modern western society is suffering from a crisis which is obesity¹⁸. Delormieret *al* doesn't shy away from terming it a crisis, and they have described how it is linked to obesogenic environments and societal trends that encourage overeating and little physical activity. They add that preventing obesity, however, has predominantly focused on the behaviour of individuals. Islam dealt with the issue of eating through public health messages, although they were general statements, and not primarily aimed at obesity. Deeply rooted in the message of Islam is the importance of addressing eating behaviour.

In many of his traditions, the Prophet discouraged overeating. He said, "The human has not filled a vessel worse than the stomach. It is enough for the human to have a few morsels of food to enable him to straighten his back. If he must eat, then a third for his food, a third for his drink and a third for his breath."¹⁹

Other messages include the importance of healthy eating. It is no doubt that traditional society didn't have the dangers of modern society of refined food, preservatives, and fast food. Nonetheless, the focus was on eating well and reducing consumption.

One important perspective is to deny oneself what it desires, and not to eat any food which one is tempted to. This was a clear message from a religious perspective which sought that the human overcome his desires and temptations.

Halal Meat

The topic of halal meat is in need for deeper discussion. Islam prohibited the consumption of certain meats and gave great weighting on the preparation of an animal meat for consumption. Strict injunctions meant that for a land animal to be consumed, it must be slaughtered, and its blood spilled. If an animal were to die in another way without allowing the blood to spill, then it would be deemed as unlawful.

Blood is a nutrient filled media for bacteria which acts as spoilers of food. By commanding this practice, through the health messages, it greatly reduced the contamination

of the meat, and thence reduced disease associated with bacterial growth. The method of halal slaughtering isn't the topic for this article, but it warrants further explanation to demonstrate that this mode is truly an important public health message.

The seeking of medicine and cure

Islam also encouraged seeking cures and medicine. One challenge to public health is to get patients to seek medical treatment. In developed society, this may not be a wide issue, but in traditional developing societies it remains a big step for them to go forth.

The Prophet was clear in advocating for healthy practices, and to seek medicine and cure when ill. He said, "Seek remedies, O people. For God has not placed any disease without making for it a cure, except one illness: old age."²⁰

This served as an important guidance for humans – and Muslims in particular – to seek for remedies, under the general notion that every illness has a cure or remedy. On the other hand, Islam discourages the use of superstitious behaviour. Research by Anwar et al (2012)²¹ showed that in Pakistan – as an example – there were still trends of using myths and superstitions relating to health-seeking behaviour.

Sexual Health

The prevalence of STDs in western society is well documented with specific diseases identified to be spread through sexual intercourse. The increase of sexual promiscuity plays a role in spreading STDs²².

Islam, along with most other religions, was strictly opposed to sex outside marriage. This clear injunction had direct effect on reducing the incidence of STDs within the community. As societies abandoned religion and thence the abstinence of extra-marital relations, STDs became more prevalent, with new disease being identified in the 20th Century.

Conclusion

Embedded in the Islamic teachings is an array of advice which amount to important public health advice. Coupled with the religious element, it has gained much traction among adherents of the religion. We know that a belief in a divine system gives more probability for better uptake in the community. This article is aimed as an introduction

to the topic of Islam and public health, and each category warrants further elaboration.

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The Divine Wisdom behind Disease – Medical and Islamic Philosophy of Pain and Suffering

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No doctor or a pharmacist, nor any person (whoever they may be) is immune from disease, suffering, and calamities. Everyone has a share of it; no one is spared from the disease. Many doctors suffer from allergic diseases, many leaders suffer from cancer, many great people suffer from back pain, and many children are deformed, disabled, or handicapped. Furthermore, the doctor may even die from a disease that he used to treat himself, and the sick person may live contrary to all medical indications for his impending death!

No plant, nor an animal, not even inanimate matter is excluded from disease (!); many barren lands and wastelands are infested with plague, many pools of water spread cholera, and many houses are contaminated with deadly bacteria, and many stones are home to fungi.

The important puzzling question

So, why did God create disease? A question that is not answered by most (if not all) medical colleges in the world; they do not even teach, despite the fact that the question is at the heart of the medical profession, and it is a question that has serious consequences in human thought and in peoples' culture.

Many atheists rejected the existence of God because they could not reconcile God the Almighty, the All-Knowing, the Merciful, with the creation of disease, evil, and suffering in life. Not answering this question prompted sceptics such as the famous Cambridge cosmologist and black hole professor Stephen Hawking, author of 'Short History of Time', and the Four Philosophers of Atheism: Sam Harris, Richard Dawkins, Christopher Hitchens, and Daniel Dennett for declaring that there is no God (God). Indeed, Stephen Hawking (before his death in March 2018 at age of 76) became daring in criticizing the belief of Isaac Newton and Einstein in God, for example: "So Einstein was wrong when he said: "God does not

play dice." Looking at black holes suggests, not only that God plays dice, but sometimes He confuses us by scattering black holes where we can't look for them." (See: Does God Play Dice? 1996). It is a wonder that such atheists persisted in their belief despite their imperfect knowledge. The burden of the disease casted a heavy shadow on Hawking, who was diagnosed with Motor Neuron Disease, at age of 21 years old, when doctors have announced that he will not live more than two years, yet he struggled with the disease with determination and composure until he exceeded the age of 76, which is longer than what the doctors expected. Hawking should have thanked God for giving him a long life, giving him the opportunity in theoretical physics instead of his atheism and denial of God's existence (!). After a while, the disease made him paralyzed, but he was nevertheless able to match and even surpass his peers in physicists, although their bodies were healthy and they could write complex equations and do their long calculations on paper, while Hawking was doing the calculations in his mind. Proud to have had the same title and professorial chair as Sir Isaac Newton, Hawking became an icon in the will to challenge disability and disease that lasted nearly 55 years. With the progression of his illness, and because of his tracheostomy due to bronchitis, Hawking became unable to speak or move his arm or foot, that is, he became completely unable to move, so the American company Intel Corporation for processors and digital systems in Santa Clara, California (in the Silicon Valley), has developed a special computer system connected to his chair, through which Hawking can control the movement of his chair, communicate using an electronic generator voice, and issue commands through the movement of his eyes and head, as he outputs data previously stored in the device representing words and commands.

Although the church was never a part of Hawking's life, and although his first Catholic wife left him because of

his atheism, the family decided to hold a burial ceremony in the church to avoid criticism and curse after his death. There were 500 invited guests to Hawking's funeral (held March 31, 2018) at St Mary's Great Church in Cambridge (England). Despite Hawking's atheism, his children Lucy, Robert, and Tim chose this prestigious church to bid him farewell. His children issued a statement justifying this: "Our father's life and work mean many things to many people, religious and non-religious alike. Therefore, the service will be both inclusive and traditional, reflecting the breadth and diversity of his life."

The Great Wisdom behind Diseases

Such great wisdom can be classified under two major headings: medical wisdom and religious (Islamic) wisdom.

A. Medical wisdom (Pure):

Perhaps starting with medical reasons is appropriate here to satisfy the cross-section of sceptics and atheists in God as a material evidence and concrete proof (before tackling religious wisdom, although both are linked to the divine will):

1. **For the advancement of medicine, surgery, midwifery, medical laboratory analyses and pharmacology for diseases** that were previously unknown to be treated, such as diabetes and the discovery of insulin for its treatment, treatment of fevers and infectious diseases by the discovery of penicillin, and for advanced treatment against viruses, microbes and various parasites: And God Almighty has spoken the truth by saying: (And He creates what you do not know)(ويخلق ما لا تعلمون). Now, syphilis, tuberculosis, smallpox, cholera, plague, and polio have all become diseases of the ancient past due to the discovery of vaccines and antibiotics. The same will be applied to COVID-19 vaccination.
2. **To show the weakness and insignificance of arrogant Man, since the simplest organisms such as viruses, bacteria and parasites can cause him diseases that can exhaust him and weaken him, as a deterrent to keep him humble.** How sweet are the words of the international actor Clint Eastwood at the end of the movie (Magnum Force 1973) in his famous saying: (A men got to know his limitations).
3. **In order to know locations of the epidemic, as no one goes to the places of infection for the sake of 'Quarantine Principle', which is a great Islamic principle engineered by the Prophetic hadith: [if an epidemic (plague) befalls a land, do not enter it, or leave it, in order to escape from it (i.e., from the epidemic or the plague)].**
4. **For the livelihood, livelihood of medical professional earnings of doctors, surgeons, laboratory analysts, pharmacists, nurses, and midwives.**
5. **To balance the numbers of human beings, birth versus death,** as deadly diseases and fatal accidents put the scales back in line in balance with the new-borns.
6. **To activate and strengthen the immune system against diseases by forming antibodies.**
7. **To regenerate tissues** in the affected organ by the process of wound healing in order to replace the dead and the old tissues with new active one.
8. **Human life has become longer than in the past due to advances in treating diseases and food sciences.** Perhaps the average lifespan of the Japanese is the longest in the world (80 years) due to their fondness for eating raw and cooked fish, while the average lifespan of Africans is the shortest in the world due to the spread of infectious diseases and the rampant violence.
9. **For self-education and prophylaxis and how to treat diseases by self-education,** you only know pain, indigestion, diarrhoea, dyspepsia, cough only by living through it and learning how to treat it and to prevent it. The flu remains unknown, no matter how much we talk about it, until you are being infected by it, so the lesson is taken by staying away from infected people and by immunization. For instance, food poisoning due to mayonnaise (raw eggs) in hot climate is better to be avoided in summer and in tropical areas. Food poisoning due to contamination during cooking as in Delhi belly and in Baghdad belly.
10. **To adapt to the new food (dieting or *Behriz*) (the wisdom of the ancients: the stomach is the home of disease and dieting is half the medicine, and in the Arabic advice: We are a people who do not eat until we are hungry, and if we eat, we do not fill-**

up). Eat what is suitable for the stomach. Refraining from spices, pepper, pickles, citrus, and fried food; and by eating dairy products (such as non-sour buttermilk, cheese, custard, and ice cream) and fresh natural food in its season instead of canned food preserved with artificial and harmful preservatives is preferable.

11. To control genetic and family diseases when genetic conditions appear in consanguineous marriages. And here comes the prophetic wisdom in the miraculous hadith: “get married to non-relatives, so that you are not weakened” (اغتربوا حتى لا تضووا) That is, marrying strangers to prevent offspring weakness.

12. To consult a doctor early. Pain, lack of appetite, nausea and vomiting may be an incentive to discover a disease earlier as in cancer and treat it in its early stages before it eventually spreads and becomes an incurable disease. It is noticeable that Western patients go to the doctor at the beginning of the disease because of health education and the philosophical vision that the worldly life is everything there, while the Eastern people sought medical advice late, not afraid of death, contrary to the wonderful prophetic advice:

(O’ servants of God, seek medical treatment, for God has not sent down a disease without a remedy, except for death) (يا عباد الله تداووا فإن الله ما أنزل داءً إلا له دواء إلا (السام – أي الموت).

13. Economically, sickness is a blessing in disguise, it is a reason for job-rest by taking extended and renewable sick leave with full salary. If the disease causes functional disability, disability benefit will be given, especially in the West, and the disabled person qualifies for early retirement (Early retirement on ill basis).

14. Illness is a station for contemplation, and self-review and audit before death, and the patient becomes wise after illness before death, so he begins to take matters seriously making dangerous decisions in distributing his possessions and properties, while alive. An incurable disease, especially cancer, is an opportunity to contemplate ‘**Bucket list**’ or **wish list** of the dying patients, mobilizing his energy to fulfil them before death is too late. There are rich people with incurable and fatal stomach or colon diseases who made their **wills** before death by donating their property and money to hospitals and charities.

15. Illness is an opportunity for the patient to contemplate on his deathbed to reconsider the priorities in life. Many Westerners have converted to Islam, as in the case of the international singer ‘**Cat Stevens**’ after his tuberculosis and drowning while swimming in Malibu when he almost died. In his near-death experience, he sworn If God saves his life and heals him, he will embrace Islam, so he did and changed his name to ‘**Yusuf Islam**’. The patient may write a will to transfer his property to charitable organizations. For example, the Superman character, represented by ‘**Christopher Reeve**’, after suffering from Tetraplegia, after falling from a horse, began to feel the pain of others with spinal cord injuries. He subsequently donated his money to fund research on the growth and repair of nerve tissue in the spinal cord; Perhaps research on stem cells was one of the fruits of this effort.

16. Patients with incurable diseases such as cancers, colon diseases and heart failure, for example, constitute a good sample for a fertile field of research on drug experiments and other therapeutic interventions in order to find an ideal treatment to help others.

17. The dying patient in the West is encouraged to donate his organs after death for the purpose of organ transplantation in neighbourhoods such as donation of the cornea of the eye, kidney, heart, liver, lungs and, more recently, face transplantation, provided that the death of the patient is not due to septicaemia or cancer (except for brain cancer that It is allowed because it does not usually spread outside the skull). Also, fatal viral diseases induce blood withdrawal and transfusion, especially the extraction of blood serum, for example, from patients with deadly viral infections to save others.

18. Just as illness is a source of livelihood for doctors, pharmacists, and laboratory analysts, death after illness is also a source of livelihood for “mortician”, “funeral director”, and “undertaker, “to bury the dead, in addition to purchasing lands and burial grounds for the dead, and in the West, there are places for crematorium.

B. The Religious (Islamic) wisdom of the disease:

1. To know the grace of God upon us with health by its loss (by disease) and to appreciate the blessing of wellness by its existence (things are known by their

contrasts). Ibn Taymiyah says in the Minhaj of the Prophetic Sunnah: (The creation of one of the opposites contradicts the creation of the other opposite, for the creation of the disease that brings about the servant's humiliation to his Lord, his supplication, his repentance from his sins, and his atonement for his sins, and softening his heart, and removing his pride, grandeur, and aggression, is against the creation health, with which these interests do not occur).

2. **Then to thank God and praise Him when patient has recovered from what have afflicted others**, as in the famous saying (Praise be to God who saved us from what afflicted others),
(الحمد لله الذي عافنا مما ابتلى به غيرنا) because (Health is a crown on the heads of the healthy), so Man is filled with peace of mind
3. **He learns from illness to be content with God's decree and predestination:** يقنع بقضاء الله وقدره
The companions of the Messenger of God, may God bless him and grant him peace, gave us the most wonderful examples in this regard, and they achieved the highest ranks in that, realizing in that his saying, peace and blessings be upon him: (And to believe in destiny, its good and its evil). God creates everything as much. So, he knows that the disease that is destined for him is only a test, (Perhaps a harmful event is beneficial) (رُبَّ ضَارَةٍ نَافِعَةٍ) (It may be that you hate a thing and God will make in it a lot of good) An-Nisa: 19.

Sickness is a divine gift that comes in the form of an ordeal. "If God wants good for a servant, He tests him,". The Prophet, may God's prayers and peace be upon him, says: (If God wants good for His servant, He hastens the punishment for him in this world, and if He intends evil for His servant, He withholds from him his sin until He recompenses him for it on the Day of Resurrection) Narrated by Al-Tirmidhi and authenticated. Al-Hassan Al-Basri said: (Do not hate the calamities that occur and the curses that occur, because in what you hate is your salvation, and in a matter, you like, is your destruction). Illness is the permanent law of life, so that a person learns that his worldly life is a permanent test, and his faith in God's decree and destiny increases, whether it is good or evil (apparently evil, as it seems to us).

The Almighty said: (We shall test you with something of fear, hunger, lack of money and lives and fruits, and glad tidings to the patients) Cow: 155. The acts of God are all full of wisdom.

Ibn al-Qayyim says in 'igathat al-lahfan' or healing the sick: **(The Lord, Glory be to Him, never does evil, but rather His actions are all good, good, and wise, as the Almighty said: (In Your hand is the good) (بِيَدِكَ الْخَيْرُ) (Al Imran: 26). He does not create pure evil from all aspects).**

Ibn Uthaymeen said: **(God created everything good and evil, but evil is not attributed to Him, because He created evil for wisdom, thus it is converted to good in His wisdom. Things created can be one of 3 types:**

- **Pure evil**, such as fire and Satan, considering their selves; but considering the wisdom for which God created them, it is good.
- **Pure good**, such as heaven, messengers, and angels.
- **There is good and evil in it**, such as humans, jinn, and animals. (Fatwas of Ibn Uthaymeen).

4. **With sickness, a person shows all kinds of devotion to God, such as fear and humility. Illness inflicts upon a Muslim a lot of harm and adversity, which leads him to fears, until it leads him to monotheism, and his heart become attracted to his Lord alone, so he calls Him sincerely to heal him.** It is narrated that when Urwa bin Al-Zubayr was afflicted by gangrene of the leg (likely to be diabetic), he said: "Oh God, I had seven sons, so You took one and kept six, and I had four limbs, so You took one limb and kept three, and if I was afflicted, I recovered." And if you took something, you kept something. Then he looked at his leg in the basin after it had been cut off and said: God knows that I have never led you to sin, and I know.

Al-Fadl bin Sahl, the minister of al-Ma'mun became ill one day, and when he recovered, he sat down to the people, so they congratulated him and said: "In the ills, there are blessings that sane people should know. A scrutiny of guilt and exposure to the reward of patience, awakening from negligence, a remembrance of grace in a state of health, a summons to repentance, an exhortation to charity, and faith in God's decree and destiny after given the choice".

5. **Encouragement and Incitement to supplication:** Imam Ahmad and Ibn Majah narrated on the

authority of Thawban, that the Messenger of God, may God's prayers and peace be upon him, said:

(Nothing will turn back fate except supplication, and nothing will increase life except righteousness).

(لا يرد القدر إلا الدعاء ولا يزيد في العمر إلا البر)

6. **The rule of isolation (Quarantine Principle) and to treat God's destiny by God's destiny:** Omar Ibn Al-Khattab went out to Syria, and when he reached 'Sar'a', he met people of Ajnad battle (Abu Ubaidah bin Al-Jarrah and his companions), so they told him that the epidemic had occurred in the Levant, Ibn Abbas said: Omar said: Call for me the first immigrants So I called them, so he consulted them and told them that the epidemic had occurred in the Levant, but they differed (in opinions).

Some of them said: You have come out for a matter, and we do not think you should turn back from it, and some of them said: The rest of the people and the companions of the Messenger of God, may God's prayers and peace be upon him, are with you, and we do not think that you should precede them over this epidemic. He said: leave me alone and call the Ansar (the supporters), but they took the same path of the Emigrants, and they differed as their differences, so he said: Invite the sheikhs of Quraysh from the Emigrants of the Conquest, so I called them, and two men did not disagree about it, they said: We see that you return the people and do not lead them to this epidemic, so Omar called out to the people: I am waking in the morning and at noon, they came to him. 'Abu Ubaidah bin Al-Jarrah' said: Fleeing from God's decree?! Omar said: "If someone else said it, O Abu Ubaidah - and Omar hated disagreeing with him — **yes, we flee from God's destiny by God's destiny.** What do you think if you had camels? and descended into a valley that had two areas, one of them fertile and the other barren, is it not that if you graze them the lush, you graze them by destiny of God, and if you graze them the barren, you graze them by destiny of God?" He said: So 'Abd al-Rahman bin Auf' came and was absent engaged in some of his needs, and said: I have the knowledge of this, I heard the Messenger of God, may God bless him and grant him peace, say: **[if an epidemic (plague) befalls a land, do not enter it, or leave it, in order to escape from it (i.e. from the epidemic or the plague)].** Omar Ibn Al-Khattab said: Praise be to God, then he left.

The witness in the story here is the words of Umar, may God be pleased with him, to Abu Ubaidah: **"yes, we flee from God's destiny by God's destiny."**

This word that the inspiring Caliph uttered has become immortal and clarifies the matter decisively.

7. **Giving reasons to see doctors, not just treatment by performing the legal 'ruqyah', and drinking holly water of Zamzam, and praying a lot, and not despairing.** For example, having cancer does not mean death from it or the inability to recover from it as some might imagine. Imam Muslim narrated on the authority of Jaber, that the Prophet, may God's prayers and peace be upon him, said: **"For every disease there is a cure. And the appropriate medicine hit that particular disease, he will be cured, God willing.**

On the authority of Anas, he said: The Messenger of God, may God bless him and grant him peace, said: **"God the Mighty and the Majestic commanded that wherever the disease is created, the medicine is created too, so seek medical treatment."** Narrated by Ahmad on the authority of Osama bin Sharik, he said: The Bedouins said: O Messenger of God, shall we not seek medical treatment? He said: **(Yes, O servants of God, seek medication, for God has not created a disease without creating a cure for it, except for one disease. They asked: O Messenger of God, what is it? He said: Al-Haram).** Narrated by Al-Tirmidhi. (Al-Haram) is the terminal disease and weakness of the elderly, and it has no cure.

8. **For the sake of illness, he learned patience, endurance and strong will. Patience in this world will bring about a high degree on the Day of Resurrection (Only the patient will be paid their wages without reckoning)**

(إنما يوفى الصابرون أجورهم بدون حساب).

Narrated that Anas: (The greatest reward goes to the greatest affliction, and that if God loved folk, He tests them, whoever is pleased God will be pleased with him, and whoever has discontent, God will be discontented with him.) Narrated by Al-Tirmidhi.

(إن عظم الجزاء من عظم البلاء، وإن الله إذا أحب قوماً ابتلاهم، فمن رضي فله الرضا، ومن سخط فله السخط)

Thus, the greater the affliction, the greater the reward, for the easy affliction has a small reward, and the severe affliction has a great reward, and this is from the grace of God Almighty over His servants.

This does not contradict the legitimacy of asking God for wellness, guarding against the causes of illness and calamity, and searching for medicine and treatment after a disease has occurred. Grumbling is contrary to contentment with God destiny. There is nothing wrong with showing one's pain, just as there is nothing wrong with seeking medical advice because of illness.

The poet says: Patience like its name, its taste is bitter, but its consequences are sweeter than honey
والصبر مثل اسمه مرٌّ مذاقته * لكن عواقبه أظلى من العسل

Patience is the path to healing, safety, and glory, and one of the greatest advantages of leadership, as Abu Ali al-Baghdadi says:

Do not count glory as dates you eat @ You will not reach glory until you lick the patience

لا تحسب المجد تمرًا أنت أكله * لن تبلغ المجد حتى تلعق الصبرا

9. Illness is a test to erase bad deeds and increase good deeds. Al-Bukhari narrated that the Prophet said: "No illness, anxiety, sadness, or harm befalls a believer, not even a thorn that pricks him, but that God erases some of his sins through it."

(ما يصيب المؤمن من وصبٍ ولا هم ولا حزن ولا أذى، حتى الشوكة يشاكها إلا كفر الله بها من خطاياها)

That testing is:

A- Sometimes, it is to erase sins and bad deeds.

B-Sometimes, it is to raise degrees and increase good deeds, as is the case in God's testing of his prophets. The Messenger of God, peace and blessings be upon him, said: "The most severely tested people are the prophets, then the next best, then the next... The affliction does not end with the servant until he leaves him walking on the earth with no sin on him." Narrated by Al-Bukhari.

(أشد الناس بلاء الأنبياء، ثم الأمثل فالأمثل... فما يبرح البلاء بالعبد حتى يتركه يمشي على الأرض وما عليه خطيئة)

C-For scrutiny of believers to distinguish them from the hypocrites, the Almighty said: (We have tried those before them so that God knows who the honest from the liars) Spider:3.

Thus, God tests His servants so that the true believers may be distinguished from others, and that those who are patient in affliction may be known from those who are not.

D-And sometimes the believer is punished with calamity for committing some sins, as the Messenger,

may God's prayers and peace be upon him, said: (A man is deprived of sustenance by a sin that afflicts him, and nothing faces fate except by supplication, and the life only increases by righteousness) Narrated by Ahmad, and others. There are 2 other sayings for the Prophet ﷺ:

(Wonderful is the affair of the believer, for all his affair is good, and this is not for anyone except for the believer. If good things befall him, then he is thankful to God, he will have a reward, and if adversity befalls him, he is patient, then he will have a reward, so all of God's decree for the Muslim is good).

(عجبًا لأمر المؤمن، إن أمره كله خير، وليس ذلك لأحد إلا للمؤمن، إن أصابه سراء فشكر الله فله أجر، وإن أصابته ضراء فصبر فله أجر، فكل قضاء الله للمسلم خير).

(Indeed, a man will have a rank with God, so he does not reach it with action, so he continues to afflict him with what he hates until he reaches that rank). The believer who experiences prosperity and grace and thanks his Lord will achieve good, and that is because God loves the thankful and increases them from His blessings, the Almighty said: (If you are thankful, I will surely increase you) Ibrahim:7

(إن الرجل ليكون له عند الله المنزلة فما يبلغها بعمل، فما يزال يبتليه بما يكره حتى يبلغه إياها).

10. Responding to the patient's supplication for himself and for others, for the patient is very close to God spiritually and with him. His visitors ask the patient to supplicate for them, because illness brings the sick closer to God Almighty, and this is a special closeness. God Almighty says in the Qudsi hadith: (Son of Adam, my servant was sick, and you did not visit him, but if you visited him, you would find me with him), Narrated by Muslim, عبيد بن جابر (يا ابن آدم، عبيدي فلان مرض فلم تعده، أما لو عدته لوجدتني عنده) (I am at the broken hearted) (أنا عند المنكسرة قلوبهم).

11. God made disease a station to break the Caesars, break the Khosrau's, and reduce the unjust rulers to size. Nimrod of Iraq was killed by an insect, and the Pharaoh of Egypt was tortured by lice and locusts.

12. To strengthen social bonds at the patient's bed between the patient's relatives, families, and peers. Paying a visit to the sick is one of the rights of the Muslim (a Muslim has to visit his brother if he becomes ill, and to walk in his funeral if he dies).

13. To know the nature of his family and to know his enemy from his friend: in adversity you know the real brothers, and (may God have a brother for you that your mother did not give birth to).

(رُبَّ أَخٍ لَكَ لَمْ تَلِدْهُ أَمَكَ) Friend in need is friend indeed.

14. In the aggravation and spread of infectious disease, people are urged to support one another in social solidarity, when fighting epidemics and diseases.

15. Sickness encourages charity. And the hadiths of the Prophet (PBUH) are among the masterpieces in this field: (Treat your patients with charity -sadaqa). (Doing good deeds protect from bad endings).

(داووا مرضاكم بالصدقة) (صنائع المعروف تقي مصارع السوء)

Time Management for Muslim Health Practitioners

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The only commodity in life that is given to all mankind in absolute equality is time. We all share the same 24 hours a day, 7 days through the week and 365 days per year. Yet only two variables differ; how many years each of us is given and how we spend this time, the former being uncontrollable, the latter being in our grasp. One of the first things that each one of us will be questioned about by God Almighty is our time. The Islamic literature does not go into detail regarding what the unit of time is that we are going to be accounted for. Is it every second, minute, day? But from that sense of responsibility, I'll try to shed some light on how to manage our precious time.

The aims of this article are:

1. To enable you to make the most of your time
2. To become more efficient in day-to-day activities.
3. To be more reliable and efficient
4. To achieve a better work-life balance.
5. To educate others around you not to be trapped by their bad time management.

Before learning about time management there is a question that must be asked. Why do you want to manage your time better? What is your motivation? What is your goal? Do you have that sense of valuing your time and what are you going to do if you have more of it?

To put it another way, if you have 26 hours a day or 8 days a week, will that make a difference to you? What are your wishes or goals in the short and long term?

For most of us, our starting point is to create a "to do list" for both the short- and long-term. Such lists should be split according to two classifications; importance and urgency, both of which are further subdivided into high and low. High importance and high urgency items (**A** in

the table) are the highest priority, but too many of them will burn you out. High importance, low urgency tasks (**B**) can be set aside until there is time available to plan them properly. Low importance, high urgency tasks (**C**) can be delegated to others or be taught to others so that they no longer need to be undertaken by you. Finally, low importance and low urgency tasks (**D**), such as relaxation and hobbies, should not be sacrificed otherwise burnout may occur in the long run. (Table 1).

Table 1:

	High Importance	Low Importance
High Urgency	A (no delegation)	C (others badly managed)
Low Urgency	B (plan for later)	D (relaxed time)

It would be important to follow a step-by-step guide:

1. Make your 'To Do List'
2. Prioritize it according to your goals
3. Fill in the week
4. Give double the time you expect for each task
5. Leave gaps for unexpected tasks
6. Fill in the gaps.
7. Learn how to deal with time wasters.

Giving double the time will give you more confidence and may create more relaxation time...enjoy it as a reward. Filling the gaps in your day can be looked at like a jar full of big pieces of rocks representing your category A, the highly important, highly urgent tasks. Then come the smaller-sized pieces representing the less important, less urgent tasks. Finally comes the sand that will fill all small spaces i.e., almost every minute of your day.

There are so many time wasters in our day, one of them being telephone calls. Every one of us has one or two people who we know call us just for a chat or to kill few precious minutes of our time. One of the ways to deal with such calls is the **GROW** model:

G: what is the goal of the call?

R: establish the reality of the situation. For example, so, you are calling me now to chat about your booked holiday.

O: options; for example, by saying: can we have a chat about it later on tonight or when we meet on the weekend?

W: what will you decide or wrapping it up and ending the call.

Paperwork is another known time trap, and we can deal with it in one or two ways. The Salami, or Pastrami, way meaning bit by bit, spending short spells of time, even 5-10 minutes at a time, to start sorting files and documents in three piles: urgent, filing and binning. The alternative way is to dedicate a whole day and decide to take a massive action of sorting all these files in one go.

Procrastination, meaning delaying decisions or actions and letting an issue or a decision that needs to be faced to drag on and on. Fear, frustration or simply a lack of courage or knowledge are all known reasons why we delay things and most of us have been in this situation at least once, however this should not paralyse us or our teams from moving forward. It usually leads to spending more time on tasks in the long term. Take for example how much time we spend trying to find something in the middle of a disorganized cupboard or a room. The delay in taking the decision and sorting that room or drawer out because of the fear that it may take a long time actually results in wasting more time in the long-term trying to find an item in the middle of the chaos. So, one tool of dealing with this handicapping shortfall is to ask why you are delaying facing the issue at hand, then try to find a solution to address these reasons. Facing these reasons is

the best way to take the first step towards dealing with any of them.

Delegation is key for more achievement so you can have time to do more or to progress to the next level of your planned goals. There is a science and an art to delegation to make it work for you and your time. Knowing who to delegate to, what to delegate and when to delegate are all essential for delegation to work for anyone. Supervision, follow up and feedback from and to the person you have delegated to are essential ingredients of the whole process. We all understand the sequence of see one, do one and teach one when we are learning new skills and taking new responsibilities and roles. As a general rule we start by delegating the least urgent, least important tasks then move upward gradually when becoming more confident and trusting of our team members.

One final skill that we need not only to learn but to master is how to do more tasks simultaneously. Multitasking is being practiced by almost all of us, but we do not realise that we are already doing it. We all listen to our patients while taking history and simultaneously typing or writing few words at the same time. How about if you can have someone watching you doing this as part of their training? So here you are, you have already added a third task. You may even add to that the organising of some leaflets, in advance, of most of the conditions or procedures that you need to give to your patients and so on.

Two concepts that many scientists are probably shy to talk about is the blessing in time and the blessed time. The blessing in time is what most of us will call efficiency in utilising our time, i.e., achieving more in the minimum time. This efficiency, or what Muslim scholars call blessing, is based on a balance between both tangible and spiritual factors as a general Islamic concept in looking at life as a whole. Planning, prioritising, preparedness, and self-discipline are all basic requirements, and the spiritual element of praying, knowing your self-limitation and above all focusing on the ultimate goal that whatever you are doing is, above all, to please your Creator and to be in harmony with your well recognised values in life. This balance gives us all that extra energy and efficiency, which early scholars simply called blessing.

The blessed time is that time of the day where you are most fresh, eager to perform and full of energy. Most of the great Muslim scholars historically identify that time as being the time after their early morning (dawn) prayer. Provided that you had good quality sleep, this is where

your body and mind are fresh to tackle what was planned for already, like studying, revising etc.

To summarise then, we must have a goal or goals to use our time successfully. We start with a 'to do list', prioritize the items on that list according to level of urgency and importance. Fill in the weekdays spreading these items according to your timetable. Give each item double the initial expected time for each task. Leave gaps in between for unexpected tasks then fill in the gaps with other smaller tasks. Learn how to deal with time wasters by developing your own strategies that work best for you. Finally celebrate your achievements to boost your energy

before moving on to the next goal. Be aware of the blessing that you have the option to spend time on different tasks and keep the balance between the four mentioned squares of importance and urgency.

Further recommended reading:

Effective Time Management Skills for Doctors (Developmedica): Making the Most of the Time You Have (Progressing Your Medical Career): Making the Most of the Time You Have (Developmedica) Paperback – 31 Oct. 2009. By Sarah Christie . ISBN-13 : 978-1906839086

The challenges facing medical workers towards Syrian Refugees in Lebanon

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Lebanon currently has the highest proportion of Syrian refugees in the world relative to the number of citizens, with 855,172 registered Syrian refugees according to the United Nations High Commissioner for Refugees (UNHCR) office in Lebanon (1).

The disruption in the formation of the government over several non-consecutive years affected the Lebanese health care system, which was already suffering from many challenges even before hosting refugees and led to more difficulties. According to the Vulnerability Assessment of Syrian Refugees in Lebanon (VASyR)(2), the poverty rate among Syrian refugees has risen to 75 percent. Moreover, their purchasing power has decreased due to the deterioration of the Lebanese currency exchange rate. The demand for health-care services among Syrian refugees has declined since 2019 because of various factors associated with the Lebanese economic crisis(3), which has led to an unprecedented increase in prices, including high fees for hospitals and doctors, drug prices and transportation costs, and has therefore affected the extent to which refugees consider their health needs a priority.

The Lebanese situation and the current healthcare realities means that the state is losing the capacity to provide healthcare services on its own due to its limited financial means and strategic planning to meet the needs of the population, including refugees. Healthcare in Lebanon is mostly executed by the private sector, making it more expensive for the vast majority of refugees, less able to accommodate them, and inaccessible to the majority of the population. Most secondary and tertiary health care institutions (specialized and highly specialized) are private, making the high financial cost of medical services a major challenge to Syrian refugees in Lebanon.(4). Lebanon's health care system is also heavily dependent on international funding for refugee health care, making it more vulnerable to economic crises

and increased donor burdens. The system has become heavier and increasingly unable to cope with the situation, especially as a result of the current build-up of crises in the country (5). Several actors have responded jointly to the health needs of Syrian refugees in Lebanon over the past eight years. These actors consist of the network of primary healthcare centers of the Ministry of Public Health (MOFH), UNHCR, local NGOs, (6) other international NGOs and humanitarian agencies such as WHO. (7)

The UNHCR in Lebanon covers approximately 85% of primary health care expenses for refugees in some cases that need urgent interventions, as UNHCR contracts annually with medical institutions to provide medical services for free or at low cost in primary health care centers and Lebanese hospitals. In addition to UNHCR, the World Bank and several NGOs play active roles in providing healthcare services to Syrian refugees in Lebanon, by establishing health centers and providing free medical consultations and medicines. (8)

Main healthcare Challenges Faced by Syrian Refugees in Lebanon:

According to more than 15 academic studies on the health needs of Syrian refugees in Lebanon women's health care is the most prevalent health need, followed by mental health, infectious diseases, and vaccinations. (7)

General Difficulties and Challenges:

The difficulties preventing access to health care services include several factors such as the complex healthcare system in Lebanon; geographical barriers such as the high cost of moving between areas; the high cost of obtaining medical services; structural barriers such as the complex medical referral system;(8) a lack of necessary awareness and knowledge about symptoms of diseases,

treatment, available services and how the system works; prejudice against refugees; discrimination from health care providers;(8)and finally the perceived lack of attention and care from service providers.(7)

Nonexistence of Identification Documents:

Some primary health care centers and hospitals ask Syrian refugees for their identity documents in exchange for the health service, which is difficult to obtain by refugees who have lost or not issued their identity documents and/or cannot return to Syria to extract an alternative. (10)

Challenges Facing Syrian Healthcare Workers:

The path to the official employment of Syrian healthcare workers in the health sector is not available in the first place. As the Ministry of Labor has prohibited foreigners, including Syrians, from undertaking their liberal professions, which include medicine and pharmacy related sectors, and limited these professions, in addition to businesses, professions, as well as job and trades in administration, banking, insurance, and education to the Lebanese, and only excluded Syrian workers from the ban on work in the agricultural, construction and environmental sectors (11). Refugees also face numerous organizational, administrative, legal, and professional barriers to formal practice. For example, Syrian doctors in Lebanon face difficulties in obtaining legal work permits, inability to secure licenses to practice without incurring unusual costs, and other related challenges that prevent entry into the labourmarket. (12)

Random Costs of treating Refugees:

Hospitals and health centers are taking on additional costs due to higher prices for medical equipment without a change in the pricing of various medical procedures, (12) by the official Ministry of Health, which led to the imposition of random prices and charging additional prices, especially on Syrian refugees who may not be aware enough of the financial details of their treatment bills. Hospitals do not hand over an invoice in case the UNHCR contributes to part of the cost and are therefore able to increase the prices charged without bringing it to the attention of the patient or even the contributor.

Syrian Refugees and the COVID-19 Pandemic:

Although Syrians constitute approximately 20% of the population in Lebanon, and the registration process on the electronic platform to receive vaccine doses does not

base an assumption on nationality at all, the percentage of Syrians registered, according to the data of the Ministry of Health vaccine platform, does not exceed 97.611 (4.3%) people, compared to 2,227,427 registered from all nationalities on the platform as of August 9th, 2021. (14)

Relevant Laws and Policies:

Article 12 of the International Covenant on Economic, Social and Cultural Rights indicates that the right to health is not limited to the right to medical care, but rather considers the right in its broadest sense, which guarantees the enjoyment of the highest attainable standard of physical and mental health. Indeed, it embraces many social and economic factors that determine what is healthy, including food and nutrition, housing, access to drinking water and sanitation, healthy and safe working conditions, as well as a clean environment.

Article 12 also affirms the state's obligations towards individuals under its jurisdiction in terms of securing a health protection system that provides equal opportunities for all to obtain the highest attainable standard of health. Accordingly, the state bears the first and primary responsibility in this, and in the second place comes its duty to resort to and allow organizations and other bodies to carry out part of these responsibilities when the state is not able to fulfill its obligations, with the state's continuing responsibility for organizing and supervising these processes to ensure the maximum extent possible of the protection of individual rights in this context. Moreover, a state cannot be sustainably unable to fulfil its obligations, as the International Covenant requires states to permanently and/or gradually endeavor to meet these obligations. States must ensure "the right of the entire population to the enjoyment of the highest achievable standard of physical and mental health," and states must ensure "the establishment of conditions that secure 'for all' medical services and medical attention in case of illness."(10) Consequently, the state bears the responsibility to provide the appropriate and required conditions to spare the population, to the maximum extent possible, the lack of standards of physical and mental health. Here, the right to adequate housing, adequate sanitation and access to clean water and food cannot be separated from this right, and therefore the state must take care of fulfilling its obligations towards those rights in the context of fulfilling its obligations regarding the right to enjoy the highest possible standards of mental and physical health (15). Depriving some Syrians of their right to health for

reasons related to identification papers, for example, is not considered a legal justification, as the state's inability to fulfill other rights that lead to such conditions does not place responsibility on the refugees themselves. The duty of the Lebanese state to respect the right to health of Syrian refugees within its jurisdiction requires not to deny or limit their equal access to the health services available in the country. The state's duty to protect this right also dictates that it prevents non-state actors from prohibiting Syrian refugees from having equal access to these services, especially if this prohibition is on discriminatory grounds. As for the state's duty to fulfill the right to health, it must provide everyone without discrimination with healthcare, especially in the time of epidemics, when it must secure access to immunization and awareness programs as well as measures to contain the pandemic.

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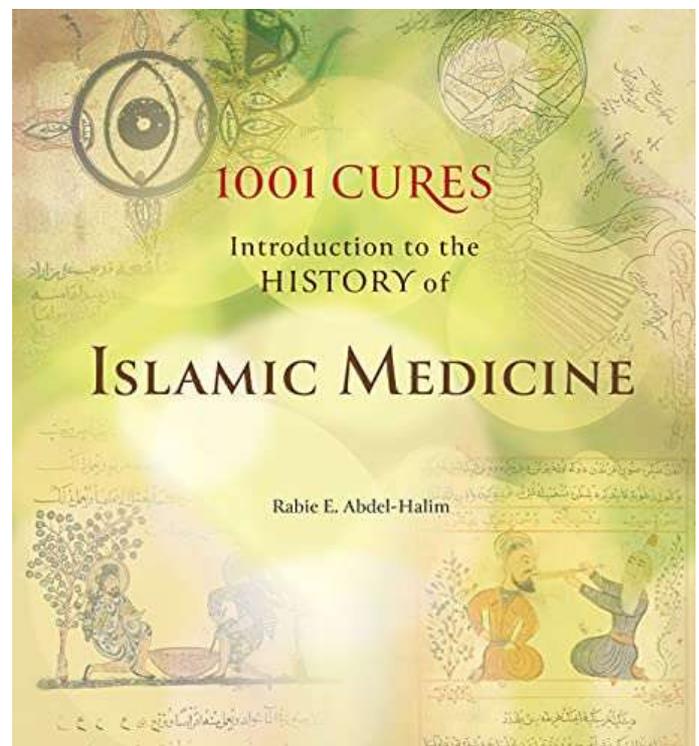
1001 Cures: Introduction to the History of Islamic Medicine - by Rabie E Abdel-Halim

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The author of the book was a prolific amateur historian of medicine, Dr Rabie Abdel-Halim was also an emeritus professor of urology from the Department of Urology at King Saud University Medical College, Riyadh, Saudi Arabia. His main urological research interest was urinary stone disease, about which he published a book: *Urolithiasis in the Western Region of Saudi Arabia: A Clinical, Biochemical and Epidemiological Study* (King Abdulaziz City for Science and Technology, 1996). It was a great privilege to be asked to review his magnum opus history of Islamic medicine, although unfortunate that I was unable to discuss it with him. Dr Rabie completed this great work the night before he died.

The book, *Introduction to the History of Islamic Medicine* would not be considered academic history, as some of his methods and perspectives would not agree with those of professional historians. However, that does not detract from its usefulness and contribution. In my view, the great value of the book is two-fold. First, as a practicing physician Dr Rabie brought to the subject valuable insights about medicine that are not possessed by a non-physician professional historian such as myself. And this reminds us that for the history of Islamic medicine, both historians and physicians are needed--just as the broader history of Islamic science requires historians and technical specialists. And second is the feature that I shall discuss in more detail, namely, his deep religious faith and his insights into how the spirit of Islam not only made Islamic civilization possible, but more importantly for our present discussion, how it created within Islamic civilization an environment wherein science could flourish. So, I would like to focus on this theme of his work, which he also expressed in his publication that was included with your conference materials, the article entitled: “The Spirit of Scientific Enquiry in the Early Islamic World.” Acknowledging that the science of today is “a joint global contribution”



of many civilizations, Dr Rabie focuses on one of the most creative periods in the history of this global science, namely, that of Islamic civilization. He finds that the most important factor in the contribution of Islam was what he calls “The spirit of scientific inquiry.”

The spirit of scientific inquiry is an attitude and orientation toward nature that affects the way of handling empirical data, and fosters a community of shared practices, beliefs, and criteria for scientists to assess each another’s work. Dr Rabie finds the ultimate source of this spirit in the Qur’an and the Sunnah of the Prophet. Islamic science began with the divine command to search for knowledge that became ingrained in the Muslim heart, the command to use the divine gift of reason to

contemplate the world and the cosmos, and to avoid intellectual taqlid, or blind imitation of past authorities. Islamic jurisprudence is the central Islamic discipline where this rational, scientific spirit was further developed. The importance of gathering corroborating evidence and testimony, as well as recognizing the inherent uncertainties within all intellectual constructs, were at work in the source methodology of Islamic *fiqh*, which sought to discover God's law for specific situations. Even the notion of natural law owes something to the Islamic notion of nature having its own God-given sunnah, or habitual patterns of behaviour, which in the simplest case is understood as God's own sunnah as he works His will through the natural world.

Dr Rabie also taught that Islamic society fostered the brotherhood of intellectuals through the exercise of reason, a fraternity that transcended ethnic and religious lines, which came about as a result of this spirit of scientific inquiry. As Aristotle would say: for Islamic civilization, reason was a good in itself, with applications in all fields. Dr Rabie sees these seeds of this spirit in the very first verse of the Qur'an: Read! In the name of thy Lord and Cherisher, Who created man out of a (mere) clot of congealed blood. Read! and thy Lord is Most Bountiful, He Who taught (the use of) the Pen, Taught man that which he knew not" (Qur'an, Sura 96, verses 1-50). The emphasis of the Divine Word here is on reading and writing, the tools through which the new revelation of Islam would be fulfilled. There are many other verses in the Qur'an that command mankind to seek and acquire knowledge, and to not be content with what one thinks one already knows, but to seek more knowledge and understanding. Knowledge is central to the Qur'anic revelation and is contrasted with the *jahiliyya* "ignorance" that prevailed before. God commands mankind to observe and contemplate the world, and the objects of nature. For example, in another *sura* and *aya* of the Qur'an: And He has subjected to you, as from Him, all that is in the heavens and on earth: Behold, in that are Signs indeed for those who reflect" (Qur'an, Sura 45, verse 13). Everything in the natural world is encompassed by this command. The signs, of course, point to something (as all signs do), namely, to God's activity in the cosmos. The true believer sees the natural world as "an ongoing epiphany", i.e., a continuous revelation of divine activity. Dr Rabie calls the search for truth the "method of Islam", which is an intriguing phrase because of its resonance with the ancient Greek philosophical schools, each with their methods for living a complete life in accord with what the respective school valued most. Specific to medicine is the ethical dimension of Islam. The human body and the quality of

the Muslims' lives are important in Islam. So, medicine, which is concerned with maintaining and restoring the well-being of the body and its health—to paraphrase Ibn Sina's famous Introduction to medicine in his Canon of Medicine, as well as with the relief of suffering, these are virtuous acts of worship and are essential religious duties.

Furthermore, the Qur'an chastises those who insist on following old ways over discovering and adopting new knowledge. Dr Rabie sees this as reflected in the well-known critical attitude of Muslim scientists, such as al-Razi and Ibn al-Haytham, toward established authorities, like Galen and Ptolemy. The seeker after truth must question everything said by these authorities and test it against his own first-hand experience. He must "make himself the enemy of all he reads", in the words of Ibn al-Haytham. Dr Rabie observes the curious fact that many of the intellectual tools later applied to the sciences were first developed within and by the thinkers who created the religious sciences of Islam. He is careful not to suggest that this means that the religious scholars were all therefore naturally inclined to accept the sciences, which they were not, as the well-known historical conflicts between some scientists and some more conservative *ulama'* show.

However, the mere fact that so many of the greatest scientific thinkers in Islam were also known as religious scholars strongly indicates that there was an essential affinity between these two spheres of intellectual activity. This fact refutes the commonly held view that science and religion are and always will be essentially incompatible and always in conflict with each other, a view that has, unfortunately, prevailed in the West and has retarded scholarship. Within the Golden Age of Islamic science, however, it was not the case that science and religion were essentially incompatible and inescapably in conflict with one another. Rather, there eventually developed a harmony between them, which could serve as a model for our present age. Aristotle has shown how all scientific activity must rest on a metaphysics which, by its very nature is speculative, since it deals with things that are unobservable, things that pre-condition what we do observe in the natural world. And so, a metaphysics that is given by revelation may be a superior place for science to begin than one derived from human wisdom alone, the latter being the preferred perspective in secular science today. In effect, Dr. Rabie describes the setting up of an intellectual milieu within a society that was organized around Islamic ideals, in which the sciences could flourish, and scientific knowledge could advance. This milieu is an entire cosmology, and a complete existential way of being for a

Muslim seeker after truth. This milieu rests on the central imperative that God-given rationality is to be used not only to further the cause of Islam, which is also the cause of mankind generally, but also that knowledge, like reason, is a universal good, and knows no ethnic, sectarian, or religious boundaries.

Moreover, Islam is essentially a culture of healing, a religious tradition that has had a deep affinity with medicine from its beginning. The relationship of Islam and healing, as Dr Rabie taught, is that Islam is concerned with the two-fold healing of the body and mind of a person. That Muslim medical thinkers were concerned to heal the body is obvious from the contributions to medicine that we have been discussing at this Congress. The second part, namely, the healing of the mind, may be less clear to us moderns. Islam aims to heal people's minds from ignorance or lack of understanding of the pure principles of Islam, which are the essential principles of human existence. (Remember that the pre-Islamic period in Arabia is called jahiliyya, "[The era of] ignorance"). For some Muslim thinkers, this healing of the minds or psyches involves a systematic organization of the whole body of rational thought, as Ibn Sina sought to do in his *Kitāb al-Shifā'*, a vast encyclopaedia of knowledge. In his history of Islamic medicine, DrRabie begins with the revelation of Islam and the creation of the Islamic community.

Proceeding from there, he describes how the Islamic conquests and translations brought the medical knowledge of Greece, India, and Persia to the Muslims, and how they assimilated and appropriated it—making it their own. In his book, as I have indicated, Dr Rabie wrote much about the compatibility of Islam and science. In the first part he showed how the revelation given to the Prophet enjoins mankind to use reason and to seek knowledge, and how the systematic working out of Islamic Law requires both reason and data/evidence, which are also the two pillars of science, namely, theory and data. This essential connection of Islam and reason is found in the commandment, mentioned above from the Qur'an, to apprehend the many signs in God's creation, and to follow them rationally to the object toward which they point, which object is the existence of the Creator and his attributes. (This is related to the famous medieval European argument for God's existence, "The Argument from Design"). The signs do not point to God's being *per se*, which could not be apprehended even if they did, but rather to His activities, or His energies, to employ a useful expression from Orthodox Christian theology, namely, His activities in our world—that which is profoundly expressed by the 99 Beautiful Names of God,

such as the one in Dr Rabie's own name (الحليم) (al-Hālim "the Forbearing", or my personal favourite (الوالي) (al-Wālī "the Protecting Friend."

DrRabie is correct, I think, that there never was a religion and a culture more compatible with the investigation of nature and the activity of science than Islam. The rapid assimilation of the essential intellectual tools from other traditions into Abbasid culture, which parallels the rapid military conquests of the Umayyads, is proof enough of that. And then there was the flowering of the sciences under the auspices of Islamic civilization when thinkers creatively shaped the ancient tools into something new and original. And space was opened for Christians and Jews to participate in these efforts, because reason as an activity transcends the boundaries of culture, religion, and language. The Baghdad Renaissance of the 10th Century under Buyid rule is the first major demonstration of this principle. At that point, the fruits of the first several generations of translations were being studied by Muslims, Jews, and Christians, and thinkers from each of these groups were discussing and arguing with one another in Baghdad, in a grand intellectual enterprise, using Arabic as well as reason, the universal language. What Muslim thinkers were creating was a science that was embedded within an Islamic cosmos. This is a reminder that science is never without a cosmology—there's no such thing as a metaphysics-free science—whether that be a religious, philosophical, or secular-materialist. One of the greatest achievements of Muslim thinkers, in my view, has had a profound effect on the development of science in later cultures. Muslim thinkers demonstrated how faith and philosophy, religion and science, revelation and reason could not merely co-exist, but thrive together in harmony within a monotheistic cosmology. (See Ibn Rushd's *Decisive Treatise*). There are certain fundamental incompatibilities between science as expressed in Aristotelian philosophy and revealed religion—for example, the issue of the creation. Aristotle's view was that the world has always existed, that it has been in a state of perpetual change. (He was, no doubt, thinking of the paradox of beginnings: how could anything ever get started, when every starter itself must have a starter? With the motions of the spheres, he could stop with the Prime Mover, but that option was not satisfactory to him where the existence of the whole cosmos was concerned.)

In Islam (and the other Abrahamic religions) the universe was created by an eternal self-existent creator God. Muslim philosophers such as Ibn Sina and Ibn Rushd showed how both points of view could be true. Well, without these philosophical tools from Islamic

philosophy, Christian philosophers, such as Thomas Aquinas, might not have been able to accomplish the same type of reconciliation between reason and faith for Christianity, and thus science might not have developed in Christian society when and as it did, and the history of science would have been very different. In medicine, the Islamic principle that God, the Creator, placed purposes in everything, helped to advance the study of anatomy and physiology. In the first place, this idea made Galen the favoured Greek physician, whose treatise *On the Usefulness of the Parts* was an extended effort to show how the Divine Wisdom is manifest in bodily structure and function. Moreover, the legacy of Islamic medicine to Europe was more than just hospitals, surgical tools, and medical theories, etc. There was, I believe, something even more significant for the development of science that came with the medicine: the whole empirical attitude toward nature that reached maturity under Islam.

Medicine is essentially empirical and is a model for how practical sciences actually work, as it shows how the empirical and the rational must work together in the creation of new scientific knowledge. To adapt a famous quote by Albert Einstein: “Theory without empiricism is lame, empiricism without theory is blind”. The original quote, “Science without religion is lame, religion without science is blind,” would be appropriate in this context, since the dyad “science and religion” was a live issue for Muslim thinkers of all fields and in all periods. Western science before the “reawakening” in the 12th and 13th Centuries was notoriously slanted toward the theoretical at the expense of the empirical, although with a few important exceptions.

As I am trying to demonstrate in my own research into Islamic astronomy and medicine, these tools, when appropriated by Western thinkers, spurred the development of science at a crucial time. Basically, physicians required the empirical data of the stars to assist them in giving prognoses for patients in a kind of scientific astrology—a kind of astrology that was distinctly removed from the superstitious sort of astrology, and so within that medical-astrological

context, the relationship between theory and practice became highly developed.

To conclude, in presenting significant historical Muslim contributions to medicine, Dr Rabie has invited us to assume a perspective on the history of medicine that has not been the popular or dominant one. He invites us to follow him to a vantage point where we can see that, within Islamic civilization, the fundamental tenets of the religion harmonize with the fundamental principles of scientific method. From that perspective it seems that there should be a natural affinity between Islam and science, one that is closer than that between science and any other religious tradition. How, then, can we account for the well-attested conflicts between science and religion that have occurred historically? If Dr Rabie is correct, then such conflicts can be shown to have been motivated by political and social factors, rather than by purely scientific or theological ones. Dr Rabie’s achievement reminds us that a responsible history of science must not only keep track of these multiple factors for the culture and period under investigation but must also attend to the ways that these factors interact with one another. If we do this, then many of the misconceptions about the historical relationship between science and religion will evaporate. Attending to these details will also help us to avoid projecting the issues of our present age back onto the subjects of our study. This includes discarding “grand narratives” about the history of science that centre on the West and its supposed destiny, while minimizing the pivotal contributions of Islamic civilization, without which world science would not have become what it is.

The kindle edition of the book can be obtained through the link below:

https://www.amazon.co.uk/1001-Cures-Introduction-History-Medicine-ebook/dp/B098BJGQ27/ref=sr_1_1?dchild=1&keywords=1001+cures&qid=1625501527&s=digital-text&sr=1-1

Organ Donation in Muslim Communities: Sharing Your Opinion With the Family

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Dear Editor

There is a high prevalence of end-stage organ dysfunction within Asian population in general and the Muslim communities are a sizable component of those ethnicities. Renal failure secondary to diabetes is top of the list¹.

32% of patients waiting for a kidney are from Black, Asian and minority ethnic communities². They often have a significantly longer wait for a successful match due to a shortage of suitably matched donors³. This is coupled with a shortage of suitably tissue-matched organs due to lack of Asian donors. We know that an increased HLA tissue typing mismatch is a risk factor for rejection⁴.

When considering the Muslim population, we have a variety of opinions regarding organ donations from the progressive opinions that sees this as an act of ongoing charity beyond death offering the gift of life to needy individuals⁵. Fatwas (religious opinion) have been issued by a UK-based Sunni scholar, Mufti Mohammed Zubair Butt, a Juris consult from the Institute of Islamic Jurisprudence in Bradford who In June 2019, produced a fatwa, Organ Donation and Transplantation in Islam: An Opinion and a similar one in 2000 from the European Council for Fatwa and Research^{6,7}.

On the other extreme, there is a sizable body of scholarly opinion that considers organ donation to be forbidden (Haram) and a form of body mutilation and desecration of its sanctity. The body should be buried whole without subjecting it to any unnecessary procedures or taking away any parts from, these are same views to those against autopsy it^{8,9}.

The mainstream view within the Muslim is more undecided due to the ignorance of the progressive points of view and the apprehension of the unknown and misconceptions of how the body is treated such as loss of dignity and the delay in expeditious burial which is very important in Islam¹⁰.

Research has shown that many families are not aware of their members wishes to become organ donors or that they've signed up to the register. With such differing opinions on organ donations within the Muslim communities and within the same families it becomes even more important to have an honest and frank dialogue amongst those families on this subject. The wishes of those who agree to it should be well known, respected, and accepted and thereafter honoured if they tragically die and the family is approached by the donor team¹¹.

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Bioethical Basis for Prioritising Critical Medical Care During the COVID-19 Pandemic

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Dear Editor,

COVID 19 pandemic took the whole world by surprise and left policy makers and clinicians with a series of ethical dilemmas(1). The unprecedented number of hospital admissions following COVID 19 infections had exhausted the previously struggling healthcare systems globally. The decision to prioritise the vastly expanding medical need against patients who already suffered from debilitating disease (cancer patients for example) are few among many who had to pay an expensive price debited from their health; unfortunately, not all these patients were able to afford this.

Frameworks and flowcharts have been devised to help clinicians prioritise hospital admissions (1)(2). The basis for this selection is a matter of intense ethical questioning. Among the highlights of selection criteria are the likelihood of survival following this hospital admission and the overall long-term survivability. Although extremely difficult to predict especially with a new disease that we still know so little about, it represents a huge responsibility on the decision makers when it's a matter of life or death. These lists however are not limited to clinical based decisions, but it also extends to a shocking level of de-prioritise patients who have "particular narrow social utility to others in a pandemic"(1).

Attempts to obtain an Islamic perspective to tackle these dilemmas have been initiated by various scholars. Padela et Al (3) have explored the conflicting concepts of prioritising patients with higher societal input with the Islamic notion of *almaslaha* which might imply that those, if survived, can help save more lives. This contradicted with the concept of universal human *karama*

which calls for equal treatment of all human beings regardless of their social status or benefit as their value is equally sacred (4).

The Islamic bioethical approach to this crisis can be constructed based on religious and historical evidence (5). Further engagement of religious leaders in the process of delineating the framework for individual Muslims in the face of this dilemma is beneficial.

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A Cry for better medical care in *Al-Aqsa* Mosque from a Palestinian doctor in *Al-Quds* (Jerusalem)

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Al Aqsa Mosque has suffered for decades from clear neglect by those responsible for it, especially in terms of health, medical facilities, and clinics. Despite the presence of tens of thousands of worshippers in its courtyards and corridors during the days of the year.

Perhaps (for me) as a doctor who was born in Jerusalem and grew up there, educated in its schools, worked in the city, moved between its hospitals, and spent his life in the vicinity of al Aqsa Mosque, I can say that I lived this tragedy in its vastness. Perhaps what increased the emergence of this tragedy is what happened during the month of Ramadan of this year which showed the extent of the suffering experienced by health sector among Arabs in the city of Jerusalem and al Aqsa Mosque in particular.

Perhaps the conflict of sovereignty over al Aqsa Mosque between the Islamic Awqaf department and the Israeli authorities, and elements of bureaucracy from these departments has led to an increase in the gap in the deliberate neglect of the mosque. The actions of the Israeli police who stormed al-Aqsa mosque ahead of Jerusalem Day march earlier this year made matters difficult. (1).

For example, the mosque only contains one medical clinic that is not equipped with the necessary medical equipment and has a narrow space that is not sufficient to provide first aid to the injured patients. And there is no doctor, except one nurse. And there is a small open cart to transport patients on stretchers on it. There are also no umbrellas in the mosque courtyards to prevent sun stroke which expose the worshippers in the month of Ramadan to heat stroke, dehydration, and loss of consciousness. Adding to that, the overcrowding in its courtyards which makes it difficult to transport the injured patients to the emergency clinic when necessary. This sort of help has been requested before. (2)

Other suffering for doctors is when they're called to enter the mosque to help injured patients. By closing the gates of the mosque and isolating it from areas around it and preventing anybody from entering or leaving which exacerbates injuries and delays the arrival of assistance to injured people in good time.

There is no health relief system that includes al Aqsa Mosque or the worshippers in it similar to the relief system in the city of Jerusalem which is entirely under Israeli Sovereignty at least. The BBC reported that 90 Palestinians were injured in Israeli crackdown with more likely not to have been documented. (3)

Despite the complicated health situation in the city, some health associations operate shyly and humbly with their simple capabilities to serve the worshippers inside the mosque. However, they lack the trained persons, the necessary equipment, and the medical expertise to assume these responsibilities, especially like the disastrous situation that occurred in the month of Ramadan this year.

What can we conclude from these events?

1. Al Aqsa Mosque must be identified from any other conflicts in the region and dealt with as a small village that has its own peculiarity for all Muslims in the world (Al-Aqsa capacity can reach 180.000 - 200.000 of worshippers) (4).
2. Improving the status of clinics inside the mosque, either by expanding them or increasing their numbers in addition to improving their performance and efficiency and training their medical staff.
3. Providing an ambulance inside the courtyards of the mosque to transport injured patients.
4. Increasing and developing awareness and guidance in first aid and disaster management, especially in areas

that are difficult for beneficiaries and ambulances to reach.

5. Increasing the efficiency and training of the working staff and employees there.
6. Establishing special courses and training sessions on how to deal with difficult conditions, places for evacuation and how to manage in the event of closing gates of the mosque.
7. Unifying the efforts of health associations and institutes in operation there and providing an effective communication network among them.
8. Protecting the rights of doctors and patients and avoiding assaulting them or preventing them from performing their humanitarian role towards patients.
9. Al Aqsa Mosque should receive greater attention from all Muslims around the world. It should also be present in their minds, spreading its news in newspapers, magazines, and publications. Clarifying the truth of what is being plotted against it in the city of Jerusalem, and receiving moral and material support.

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Dr Husain Nagamia Obituary

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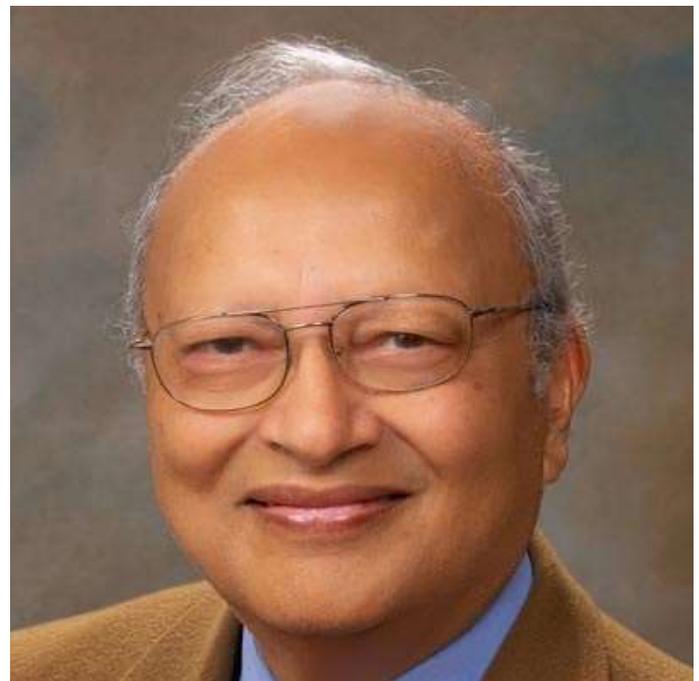
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Dr Husain Nagamia, age 81, of Tampa, passed away on June 4, 2021 at the age of 81. He was born June 29, 1939 in Baroda, India, son of the late Fakhrudin and Kamaljeahan (Refai) Nagamia. His wonderful achievements leave a positive legacy and there is much to celebrate when assessing all that he did.

History class in the U.S. consisted of reading about the Greeks, Romans, and then fast forward to the conquering of England and the European Renaissance. Although the main goal at that time was to not fall asleep, it wasn't hard to notice this huge gap in our history education. That gap that neglected to mention the vital contributions from the Middle East and North Africa was normalized. I never really questioned this until I truly learned about the history of Islam and science, specifically medicine, from Dr. Husain Nagamia. To the world he was the Chairman/Founder of the International Institute of Islamic Medicine (IIIM), a Cardiothoracic surgeon, Past President of the Islamic Medical Association of North America (IMANA), member of the Founder's Committee of the Islamic Society of North America (ISNA), Editor-in-Chief of the Journal of the Islamic Medical Association of North America (JIMA). To me, he was Uncle.

I was a resident when we first implemented an IIIM essay competition for undergraduate and medical students about the history of Islam in medicine. I didn't know much about IIIM and only knew of Dr. Nagamia through a family friend connection. But I quickly learned of his genuine passion for educating young Muslim professionals about their history in their own field, and ultimately their identity. I didn't realize at the time how that would shape me. We did this essay competition for a few years, where we learned about surgical instruments



developed by Muslims during the Golden Age of Islam, advances in the understanding of the circulatory system

and optics by Muslim physicians. We learned about all the papers Dr. Nagamia wrote and published about the

history of Islamic medicine and surgical procedures and Neo-Islamic medicine throughout the years. Despite his amazing achievements, wealth of knowledge and being so busy, he always reached out to me and included me in the planning of these competitions. He expressly wanted youth involvement in these efforts because he knew that it wasn't about him, but about the mission and vision, whether he was there for it or not.

Because of the success and growth of the IIIM since 1992, eventually [NIIMS](#) was born in 2019, the Nagamia Institute of Islamic Medicine and Science. Dr. Nagamia oversaw the creation of an independent institution solely dedicated to Islamic medicine and science history, the first of its kind in the United States. An institution that engages with and teaches local students, showcases a unique and rare Qur'an exhibit, provides monthly education webinars on medical advances both current and historical. Dr. Nagamia's vision became a physical reality. He was also a well published author and wrote a variety of publications and academic articles on different topics. These include:

- *Islamic Medicine History and the current practice*
- *Prophetic Medicine: 'A Holistic Approach to Medicine'*
- *New Definition of Islamic Medicine: 'Neo-Islamic Medicine'*
- *A Museum and Library of Islamic Medical History: A new perspective*
- *The Great Physician Historian During the Golden Islamic Medical History - Ibn Abi Usaybi'aa*
- *Abū Zayd Ḥunayn ibn Ishāq al-'Ibādī: A Physician Translator Par Excellence Ibn A-Nafīs*
- *The Bukhtīshū' Family: A Dynasty of Physicians in the Early History of Islamic Medicine*
- *What is Wrong with American Medicine? The Role of IMANA*

This vision and passion weren't singular events. This journey was 25 years in the making, to which Dr. Nagamia dedicated a lifetime. Understanding that our Islamic history isn't just for one culture or group, he collaborated with leaders and motivated people around the world to spread this knowledge and passion for our

history. This led to multiple presentations at international IMANA meetings, to collaborative research projects, to the creation of the International Society for the History of Islamic Medicine ([ISHIM](#)), and many other international conventions. Dr. Nagamia was attending these meetings every year and was only forced to stop because of the COVID-19 pandemic. These meetings created lifelong friendships, friends who are now feeling the pain of the loss of Dr. Nagamia. His legacy invigorated people to know their history, and ultimately know themselves.

Dr. Nagamia knew who he was. Born in 1939 in Baroda, India he remained connected to his roots where he studied medicine. He was one of the founding members of the American Federation of Muslims of Indian origin, dedicated to the universal education for minorities in India to achieve 100% literacy. He had all these accomplishments and was still working in his busy clinic! But his main passion and dedication was to his family. He was married to Dr. Zubeda Nagamia for 55 years, traveling together around the world as they spread this passion for Islamic history. His daughter, Dr. Afshan Ahmed, son, Dr. Sameer Nagamia, and grandchildren were his pride and focus as he attended every major event, most recently his youngest grandchild's highschool graduation.

Dr. Nagamia was one of those people with the great blessing to have changed their community so much during their time here on Earth, and also leaving a legacy that is a *Sadaqahjariyah*. He was one of a kind, and will be dearly missed. Though we grieve, he would urge us to continue the work because it wasn't just his; he made sure it was ours.