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- Editorial
Dr Sharif Kaf Al-Ghazal
- Organ Donation and Transplantation: Islamic view
*Hassan Chamsi-Pasha, Majed Chamsi-Pasha,
Mohammed Ali Alba*
- Contraception – an Islamic perspective
Amin Habib, Hawwa Iqbal, Saad Amer
- The correlation between UK Good Medical Practice
guidance of the GMC with the established virtues of
Muslim Physicians
Nadia Khan, Amer Hamed
- Islamic Bioethical Perspectives on Gender
Identity for Intersex Patients
Nasir Malim, Aasim I. Padela
- COVID-19: The Pandemic, the Muslim Physician
and Authentic Reflection
Usman Raja, Sabena Y Jameel
- Al-Zahrawi (Albucasis) - A Father of Operative
Plastic Surgery in Europe
Sharif Kaf Al-Ghazal
- The First Step Towards Reducing Oral Health
Inequalities In Ethnic Minorities
Pushpa Momin, Sophina Mahmood
- Health, Prayer and Spirituality: A Review
of the Muslim Contribution
John F. Mayberry
- Make it Out not Burnout
Asma Khan
- Let's Talk about Organ Donation from
a UK Muslim Perspective
*Omar Ali, Rio Gkekas, Tsz Tang, Sameer Ahmed,
Saeed Ahmed, Imadul Chowdhury, Sharif Al-Ghazal*
- A study of the Fatawa on Brain (stem) Death
Zubair Umer Mohamed
- Albucasis (Abu al-Qasim al-Zahrawi), Renowned
Muslim Surgeon of the 10th Century (By Fred Ramen,
2006)
Mohamad Anas Nahil
- COVID-19: The importance of clear leadership
Mohammed Wajid Akhter
- A jurisprudential opinion on 'deemed consent' with
respect to the Organ Donation Act 2019
Abdullah bin Yusuf al-Judai
- Jumu'ah Khutbah on Blood and Organ
Usman Maravia

Contents

Editorial

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

Ethics

- 3 **Organ Donation and Transplantation: Islamic view**

Hassan Chamsi-Pasha, Majed Chamsi-Pasha, Mohammed Ali Alba

- 10 **Contraception – an Islamic perspective**

Amin Habib, Hawwa Iqbal, Saad Amer

- 16 **The correlation between UK Good Medical Practice guidance of the GMC with the established virtues of Muslim Physicians**

Nadia Khan, Amer Hamed

- 19 **Islamic Bioethical Perspectives on Gender Identity for Intersex Patients**

Nasir Malim, Aasim I. Padela

- 28 **COVID-19: The Pandemic, the Muslim Physician and Authentic Reflection**

Usman Raja, Sabena Y Jameel

History

- 34 **Al-Zahrawi (Albucasis) - A Father of Operative Plastic Surgery in Europe**

Sharif Kaf Al-Ghazal

Advocacy

- 40 **The First Step Towards Reducing Oral Health Inequalities In Ethnic Minorities**

Pushpa Momin, Sophina Mahmood

Islam & Health

- 44 **Health, Prayer and Spirituality: A Review of the Muslim Contribution**

John F. Mayberry

- 52 **Make it Out not Burnout**

Asma Khan

Research

- 54 **“Let’s Talk about Organ Donation”; from a UK Muslim Perspective**

Omar Ali, Rio Gkekas, Tsz Tang, Sameer Ahmed, Saeed Ahmed, Imadul Chowdhury, Sharif Al-Ghazal

- 62 **A study of the Fatawa on Brain (stem) Death**

Zubair Umer Mohamed

Book Review

- 78 **Albucasis (Abu al-Qasim al-Zahrawi), Renowned Muslim Surgeon of the 10th Century (By Fred Ramen, 2006)**

Mohamad Anas Nahil

Letters to the Editor

- 80 **COVID-19: The importance of clear leadership**

Mohammed Wajid Akhter

- 81 **A jurisprudential opinion on ‘deemed consent’ with respect to the Organ Donation Act 2019**

Abdullah bin Yusuf al-Judai

- 83 **Jumu’ah Khutbah on Blood and Organ**

Usman Maravia

JBIMA Editorial

Dr Sharif Kaf Al-Ghazal, Editor in Chief

Assalamo Alaikom

The last 6 months have been unprecedented in modern history; Covid-19 has changed the world in real time and many things we previously took for granted we currently cannot do. As healthcare professionals, our practices have been affected and we have faced myriad challenges which we continue to deal with. We at the British Islamic Medical Association (BIMA) have been working hard with other Muslim and non-Muslim organisations to mitigate the effects of the pandemic. We are proud of what we have achieved with our members, and whilst an in-depth explanation is beyond the scope of this editorial, more can be found on them by [clicking this link here](#).

One of the challenges we have faced is that of the increased death rate amongst the Muslim and BAME (Black Asian Minority Ethnic) communities during the pandemic, sadly including healthcare professionals. As the UK slowly flattens the curve, hopes rise that the government has a better grasp on the Covid-19 pandemic. The death toll and life changing impact of the pandemic on this segment of society has been a horrific ordeal. This is deeply worrying and highlights the importance of ensuring that urgent action is taken to protect members of the BAME community. As Covid-19 is still no clearer to being eliminated, the question must be asked: How can the Muslim and BAME community be protected? And what are the lessons that must be learned?

The evidence so far indicates that BAME doctors are affected worse by the lack of Protective Personal Equipment (PPE). This is no coincidence, BAME medical professionals can be reluctant to speak out when provided with inadequate PPE and fear being cast as troublemakers by their superiors. The metaphor of a soldier going out to the frontlines with no protection has been oft quoted during the pandemic, and it is a simple comparison to understand. Doctors who are seeing patients and do not have adequate PPE are quite literally risking their lives; those who protect society, must be protected themselves.

Moreover, it has been reported that BAME medical professionals have had inadequate Covid-19 risk

assessments making them feel more vulnerable as a consequence.

Furthermore, there are likely to be complex socio-economic, occupational, health and structural inequalities and cultural factors explaining the disproportionate impact of COVID-19 on the BAME population. It is imperative that other organisations join forces to put pressure on the NHS and its senior executives to protect its BAME staff members and eliminate structural racism. We have lobbied the government to launch a formal inquiry by adequately qualified professionals to explore the factors mentioned above and to make practical recommendations to the government that can be taken on board. In the long term, government intervention is needed to dissect more complex socio-economic factors that put the BAME community at greater risk, and more can be done at a community level.

BIMA was successful in taking on a leading role to form a BAME medical umbrella group (including almost 40 other medical organisations). BIMA will work hard as part of this umbrella group to go beyond the issues of the Covid-19 pandemic and explore the structural inequalities faced by the BAME community within the NHS. Inequality is so rooted within the NHS, that even Dr Rashid Abbasi (whose terminally ill daughter was in the hospital) was subject to gross mistreatment in the hospital at his daughter's bedside. The story that was released recently was shocking and horrifying.

Lobbying the government is a huge undertaking, but this advocacy is needed. And with the renewed focus on the Black Lives Matter movement, it is imperative that BIMA makes progress on this issue.

Finally, Ramadan has come and gone. Eid Al Fitr, and Eid Al Adha have both come and gone too. But somehow, we feel that we haven't experienced either. Even Friday jum'aa prayers at the mosque have only been restarted very recently and restrictions on numbers still exist. And whilst some have said that Muslims have been to blame for surges in cases in different parts of the UK, it must be said that the Muslim community has displayed remarkable discipline during the pandemic.

The announcement of a local partial lockdown with less than 24 hour notice on the eve of Eid Al Adha was a difficult pill to swallow, but the Muslim community abided by it. As Muslims, we have not been able to go on Hajj this year and have sacrificed for the sake of our community. Allah (SWT) is testing us; this virus which can barely survive outside a human host has proven to be so deadly and has taught even the strongest of nations, with nuclear weapons, humility. We are still learning about Covid-19; we do not yet have a vaccine or a cure but we must remain patient and optimistic. This

pandemic will pass InshaAllah and as Muslims, it is imperative upon us to be part of the effort to find a cure. After all, as the prophet Mohammad (PBUH) once said, "*there is no disease that Allah has created, except that He also has created its treatment*".

With all good wishes

Wassalam.

Dr Sharif Kaf Al-Ghazal
JBIMA, Editor in Chief

Organ Donation and Transplantation: Islamic view

Hassan Chamsi-Pasha FRCP, FACC¹,
Majed Chamsi-Pasha MBBS, SBIM²,
Mohammed Ali Albar MD, FRCP (Lond)³

1 - Consultant Cardiologist, Dept of cardiology, King Fahd Armed Forces Hospital, Jeddah, Saudi Arabia,
2 - Senior Registrar, Department of Internal Medicine, International Medical Center, Jeddah, Saudi Arabia,
3 - Director of Medical Ethics Center, International Medical Center, Jeddah, Saudi Arabia,

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

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Abstract

Organ transplantation has been accepted as a modality of treatment that improves the patient's suffering from end-stage organ failure. There is a wide gap between organ supply and demand, resulting in a very long waiting time for organ transplantation, and an increasing number of deaths of the patients while on the waiting list. Islam has given permission for organ and tissue transplantation to save human lives or vital organs. Although brain death has been accepted as true death by many Muslim scholars and medical organizations, the consensus in the Muslim world is not unanimous. The public attitude toward donation is pivotal in all transplantation programs, and increasing the awareness of the leaders of religion is extremely vital.

Introduction

Organ donation is the donation of biological tissue or an organ of the human body, from a living or dead person to a living recipient in need of transplantation. Organ transplantation has become one of the most effective ways to save lives and improve the quality of life for patients with end-stage organ failure in developing and developed countries. (1)

Nowadays, many diseased organs are being replaced by healthy organs from living donors, cadavers, and from an animal source. Successful bone marrow, kidney, liver, cornea, pancreas, heart, and nerve cell transplantations have been taken place. The incidence is limited only by cost and availability of the organs. The discovery of effective immunosuppressive drugs in the late 1970s was an important step toward increasing the success rate of organ transplants, and thus paved the way for organ transplantation to become a medical routine affair in the 21st century.(2)

The increasing incidence of vital organ failure, and the inadequate supply of organs, especially from cadavers, have created a wide gap between organ supply and organ demand, which has created a very long waiting time to receive an organ as well as an increasing number of deaths while waiting.(1) These events have raised many ethical, moral, and societal issues regarding supply, methods of organ allocation, and use of living donors including minors. It has also led to the practice of organ sale by entrepreneurs for financial gains in some parts of the world through the exploitation of the poor, for the benefit of the wealthy. In his editorial, Kaf Al-Ghazal (3) pointed out that the issue of organ donation still remains an incredibly important one attracting a lot of discussion amongst medics, ethicists, healthcare policymakers and wider society. It stimulated a lively debate within the Muslim community in UK with a recent positive shift towards organ donation. (3)

Despite the fact that transplantation programs are dependent on brain-dead patients as a supply of organs, these two questions should be separated. Accepting the concept of brain death is one thing, and allowing organs

to be procured from a dead loved one is a different question, with additional difficulties and concerns for the family. (4)

The history of organ transplantation in Islamic culture

Muslim jurists sanctioned transplantation of teeth and bones, which had been practiced by Muslim surgeons over a thousand years ago. Imam Nawawi (631-671H/AD1233-1272) fully discussed the subject of bone and teeth transplantation in his voluminous reference textbook *Al Majmu*. Imam Nawawi allowed bone graft from slaughtered animals (eg. Goats, sheep and cattle). He refused porcine bone graft but he stated that if it is already implanted and it is dangerous to remove it, it should not be removed.(5) Al Imam Al-Shirbini commented on the same subject in his book “*Mughni Al Muhtaj*”.(6) The bone to be implanted could be from the same person (autograft) , or the corpse of another person (allograft), or an animal (xenograft). The latter could be from a slaughtered (Halal) animal or a Najas, i.e., a dead (Carcass), or of porcine origin, both of which will not be allowed unless there is no other alternative, and is deemed necessary. However, Zakariya al-Qazwini, a grand Qadhi (judge) in Iraq (600-682H/1203-1283AD), noticed that porcine bone grafts function more efficiently than other xenografts, and reported this fact in his book “*Wonders of Creatures.*” (7) Ibn Sina (Avicenna 607-687H/1210-1288AD) (the greatest Muslim physician) in his voluminous textbook “*Canon*” mentioned in his encyclopedic book of Medicine “*Canon*”, bone grafting operations for long bone fractures which were taken from dead bodies or slaughtered animals. He regarded bone transplantation as a hazardous operation that he would never attempt to perform! (8)

No Harm

The majority of contemporary Muslim scholars legalized organ donation, with clear conditions as means of preserving life. Other scholars refused even the concept of donation claiming that: bodies are ultimate possession of God, no one has a right to donate what he does not possess, and donation of any human tissue is a violation for the rule of being vicegerents.

The human being should always maintain his/her dignity even in disease and misfortune.

The human body, living or dead, should be venerated likewise. "A funeral procession passed in front of the Prophet (PBUH) and he stood up. When he was told that

it was the coffin of a Jew, he said, "Is it not a living being (soul)?" (9)

Mutilation of humans or animals is not allowed. The Prophet Muhammad (PBUH) said: “Breaking the bones of the deceased is like breaking his bones when he is alive.” (10)

However, performing postmortems or donating organs from a cadaver is not tantamount to the mutilation of the corpse or an act of disrespect. (11) The harm done, if any, by removing an organ from a corpse should be weighed against the benefit obtained and the new life given to the recipient. The principle of saving human life takes precedence over whatever assumed harm would befall the corpse.(12) Nevertheless, Sheikh Mohammed Mitwalli Al-Shaarawi, a renowned commentator on the Holy Qur'an, but not a Mufti (Jurisconsult), rejected all types of organ donation.

In the case of a living donor, the principle of doing no harm is invoked. The donation of an organ whose loss would usually cause no harm or a minimal increased risk to the health or life of the donor is acceptable, if the benefit to the recipient is much greater than the harm. It invokes the principle of accepting the lesser harm when faced with two evils. The harm done by the disease, which can kill a human life, is not to be compared with the harm incurred by donation. (13)

Act of Charity

Organ transplantation can save many human lives and improve the quality of life for many others. Islam encourages a search for a cure and invokes Muslims not to despair, for there is certainly a cure for every ailment, although we may not know it at present. The donation of organs is an act of charity, benevolence, altruism, and love for humankind. God loves those who love fellow humans and try to mitigate the agony and sorrow of others and relieve their misfortunes. Any action carried out with good intentions and which aims at helping others is respected and encouraged, provided no harm is inflicted. The human body is the property of God; however, man/woman is entrusted with the body as well as other things. He/she should use it in the way prescribed by God as revealed by his messengers. Any misuse will be judged by God on the day of judgment, and transgressors will be punished. (14) Donation of organs should not be considered as acts of transgression against the body. Human organs are not a commodity, and they should be donated freely in response to an altruistic feeling of brotherhood and love for one's fellow

beings. Encouraging donation by the government is allowed by Islamic jurists and is practiced in Saudi Arabia, Gulf Countries, and Iran.

Islamic jurists' fatwas (juridical resolutions) regarding organ transplantation

The majority of the Muslim scholars and jurists belonging to various schools of Islamic law invoked the principle of priority of saving human life and hence gave it precedence over any other argument. Sheikh Hassan Mamoun (the Grand Mufti of Egypt) sanctioned corneal transplants from cadavers of unidentified persons, and from those who agree to donate upon their death (Fatwa No. 1084 dated April 14, 1959). His successor, Sheikh Hureidi, extended the fatwa to other organs in 1966 (Fatwa No. 993). In 1973, the Grand Mufti, Sheikh Khater, issued a fatwa allowing harvesting of skin from an unidentified corpse. The Grand Mufti Gad Al Haq sanctioned donation of organs from the living, provided no harm was done, and provided it was donated freely in good faith, and for the love of God and the human fraternity. He also sanctioned cadaveric donors provided there was a will, testament, or the consent of the relatives of the deceased. In the case of unidentified corpses, an order from the magistrate should be obtained before harvesting organs (Fatwa No. 1323 dated December 3, 1979).

The Saudi Grand Ulama sanctioned corneal transplant in 1978 (Decree No. 66 H1398/1978). In Algiers, the Supreme Islamic Council sanctioned organ transplantation in 1972, while in Malaysia, the International Islamic Conference sanctioned organ transplantation in April 1969. (15)

The Saudi Grand Ulama Fatwa No. 99, 1982, addressed the subject of autografts, which was unanimously sanctioned. It also sanctioned (by a majority) the donation of organs both by the living and by the dead, who made a will or testament, or by the consent of the relatives (who constitute the Islamic next of kin). The Kuwaiti Fatwa of the Ministry of Charitable Endowments No. 132/79, 1979 sanctioned live and cadaveric organ donation. The Kuwaiti law No. 7, 1983 reiterated the previous Fatwa and pointed out that living donors should be over the age of 21 years to give their consent. (15).

Brain Death

The subject of the brain death was not addressed in any of these fatwas. It was discussed for the first time in the Second International Conference of Islamic Jurists held

in Jeddah in 1985. No decree was passed at that time until further studies and consultations were obtained. In the Third International Conference of Islamic Jurists (Amman 1986), the historic resolution (No. 5) was passed with a majority of votes, which equated brain death to cardiac and respiratory death. (16) Death in the true Islamic teaching is the departure of the soul, but as this cannot be identified, the signs of death are accepted. This decree paved the way for an extension of organ transplantation projects, which were limited to living donors. Campaigns for organ donation from brain-dead persons were launched in Saudi Arabia, Kuwait, and many Arab and Muslim countries.

The Islamic Fiqh Council of Islamic World League held in Makkah Al Mukarramah (December 1987), which passed Decree No. 2 (10th session), did not equate cardiac death with brain death. Although it did not recognize brain death as death, it did sanction all the previous fatwas on organ transplantation. This decree received little publicity in the media, and cardiac and kidney transplants from brain-dead individuals continued without any hindrance from the jurists. (17)

The most detailed fatwa on organ transplantation was that of the Fourth International Conference of Islamic Jurists held in Jeddah in February 1988 (Resolution No. 1). It endorsed all previous fatwas on organ transplantation, clearly rejected any trading or trafficking of organs, and stressed the principle of altruism. (18)

Later, the Islamic jurists started to discuss new subjects related to organ transplantation, namely, transplantation of the nerve tissue as a method for treating Parkinsonism or other ailments; transplantation from anencephalic; transplantation of tissues from embryos aborted spontaneously, medically, or electively; and leftover preembryos *in vitro* fertilization projects.

The Sixth International Conference of Islamic Jurists, held in Jeddah in March 1990, addressed all these issues fully. It sanctioned transplantation of nerve tissues to treat ailments such as Parkinsonism if this method of treatment proved superior to other well-established methods of treatment. The source of the nerve tissues could be: the suprarenal medulla of the patient himself (autograft), the nerve tissues from an animal embryo (xenograft), cultured human nerve cells obtained from spontaneous abortion or medically indicated abortions. (19)

However, the conference deplored the performance of abortion for the sake of procuring organs. It reiterated the

Islamic views against elective abortion, which is only allowed to save the life or health of the expectant mother. If, however, the fetus is not viable, organs can be procured if the parents donate and only when the fetus is declared dead. The aborted fetus is not a commodity and commercialism is not allowed. (19)

Anencephalics cannot be used as organ donors until declared brain or cardiac dead. The fully informed consent of the parents should be obtained in every case. Of note, a few cases of kidney transplantations from anencephalic were performed, where kidneys were transplanted to children with end-stage renal failure. The jurists also discussed transplantation of genital organs. They did not allow the transplantation of gonads as they carry all the genetic inheritance from the donor. However, they sanctioned the transplantation of the other internal sex organs. (19)

In 2003, the Islamic Fiqh Council of Islamic World League, Makkah Al Mukarramah, in its 17th session passed a Fatwa No. 3, which allowed using leftover preembryos for stem cell research and treatment of serious ailments. (20)

Organ Donation among Muslims in Europe

In his article, "Religio-ethical discussions on organ donation among Muslims in Europe," Dr. Ghaly sheds light on the discussions among Muslim religious scholars on organ donation particularly related to Muslims living in Europe. The article examines three main religious guidelines (fatwas) issued, respectively, by the UK Muslim Law (Shari'ah) Council in 1995 in the UK, the European Council for Fatwa and Research (ECFR) in 2000 in Ireland, and the Moroccan religious scholar Mustafa Ben Hamza during a conference on "Islam and Organ Donation" held in March 2006 in the Netherlands. The three fatwas examined in this article shared one main purport; organ donation is in principle permitted in Islam. (21)

The fatwa issued by the ECFR in 2000 stated that if the deceased did not make up his/her mind before death about organ donation, then the deceased's family has the right to decide. The ECFR went even further by giving the same right to "the authority concerned with the Muslims' interests in non-Muslim countries" if the deceased's family was missing.

The second fatwa was issued by the UK Muslim Law (Shari'ah) Council in 1995. Different to the ECFR fatwa, this fatwa was much less dependent on the religio-ethical

discourse in the Muslim world. The UK fatwa also dedicated much more space to the concept of brain death and argued that this death criterion is accepted from the Islamic perspective. The fatwa also clearly stated that Muslims might carry donor cards. Like the ECFR fatwa, the UK fatwa expressed no objection to the idea that the deceased's family can decide, if the deceased did not have a donor card, nor expressed his/her wish before death. Finally, the fatwa stressed that organ donation should be done freely without reward and that trading in organs is prohibited. (21)

The third fatwa was issued by a Moroccan scholar, Mustapha Ben Hamza, during a conference on "Islam and organ donation" held in 2006 in the Netherlands. This fatwa approved for a Muslim to donate his/her organs to a non-Muslim. A similar fatwa was issued by Mufti of Singapore Sheikh Bin Sumait in the early 1990s.

More recently, Mufti M. Zubair Butt issued a fatwa in 2019 on Organ Donation and Transplantation in Islam. (22) Regarding brainstem death, both the ECFR and Mufti M. Zubair Butt fatwa rejected the UK criteria for determining death. The ECFR only recognizes whole brain death when all functions of the brain have stopped (23) and Mufti M. Zubair Butt even rejects that as not conforming to the definition of Islamic death. The Muslim Law Council fatwa of 1995 is the only fatwa which recognizes brainstem death as legal death allowing for organ donation. (24)

Both the fatwa of the ECFR and of Mufti M. Zubair Butt require actual irreversibility of the heart which cannot be said to have been achieved after only 5 minutes of asystole as happens in the donation after circulatory death in the UK and elsewhere. We concur with the opinion that no clinician will testify that the heart cannot be restarted after 5 minutes of asystole. (24)

Even within medical circles, the notion that brain death represents complete death has been met with some resistance. (25,26) The debate about the concept of brain death continues among physicians. Year after year, there are media reports about patients who have been diagnosed as "brain-dead" and who have apparently experienced miraculous recoveries. Troug et al states that in every case, careful examination of the evidence has shown these reports to be false. There has never been a case in which brain death was correctly diagnosed and the patient subsequently recovered any neurological function whatsoever. (27)

Reported cases of brain death in which certain brain functions persist show that the current tests for brain death may need to be tightened.(28) Strategies to lessen the mismatch between the whole-brain criterion and brain death tests include: improving brain death determination training for physicians, mandating a test showing complete intracranial circulatory arrest, or revising the whole-brain criterion.(29)

We think that confirming the absence of intracerebral brain flow, for example, by transcranial Doppler, is feasible, inexpensive and will reduce the resistance against accepting brain death as a true death.

Opt-In and Opt-Out Organ Donation Systems

Many countries use what is commonly referred to as the “opt-in” organ donation system, in which individuals have to sign up to become a donor before their death, and then the final decision to use the organs from a given individual’s body rests with the potential donor’s family after his death. Some European countries have shed the restrictions of the opt-in system in favor of an opt-out system. The opt-out system presumes that all individuals would presumably consent to have their organs used for transplant. In practice, many countries have legislation allowing for “implied consent” which pays little regard to the informed consent and autonomy. Implied consent is a consent which is not expressly granted by a person, but rather inferred from a person’s actions and the facts and circumstances of a particular situation. (14)

The law around organ donation in England has changed, effective from 20.5.2020. The ‘Organ Donation (Deemed Consent) Act 2019’ is popularly known as Max’s and Keira’s Law, after a boy whose life was saved when he received the heart of a nine-year-old girl who died in a car crash. The sole aim of the law reform is to increase the supply of organs from deceased donors for transplantation to meet ever-increasing demand (30). All adults in England are now considered to have agreed to be an organ donor when they die, unless they have recorded a decision not to donate, or are in one of the excluded groups. This is commonly referred to as an 'opt out' system.

The excluded groups are those under the age of 18, people who lack the mental capacity to understand the new arrangements and take the necessary action, visitors to England, people who have lived in England for less than 12 months before their death, and those not living in England voluntarily (32,33). In cases where the individual hasn’t expressed a decision, specialist nurses

will support families to make a decision, based on what their loved ones would have wanted. (33,34,35)

The absence of an expression to opt out by a person does not imply a consent to donate.

The consent of the donor is a must, and consultation of the family (particularly the *wali* [guardian]) of the potential donor’s understanding of these wishes needs to be considered. (36)

If a person is not keen on organ donation after his/her death, it would be essential for him/her to sign the form expressing his/her refusal. This can be done by filling out an NHS Organ Donor Register withdrawal form.

Organ Donation and Transplantation in North America

In December 2018, the *Fiqh* Council of North America (FCNA) issued an Islamic ethico-legal verdict (*fatwa*) on organ donation and transplantation. The FCNA judges organ donation to be morally permissible from the perspective of Islamic law and ethics, subject to several conditions. These include first-person authorization, that donation occur either while living or after circulatory declaration of death, and that harm to the donor is minimized. Organ transplantation, in general, was also deemed licit. (36) Deceased donation must occur after cardiac determination of death. There are different opinions in the medical field itself when it comes to the definition of death. “Brain death” or neurological determination of death is a highly contentious issue among medical scientists and bioethicists, and stirs controversy among jurists. Some Islamic scholars consider a person deemed to have met neurological criteria for death as having met the standards for legal death in Islam, others hold the person to be in a dying but not dead state, and other reject neurological criteria as too uncertain to meet Islamic legal standards for death determination. (36)

Conclusion

Islam has given permission for organ and tissue transplantation to save human lives or vital organs. Islamic juridical deliberations around brain death largely took place over thirty years ago and this debate within Muslim bioethics need updating. To change the views of religious people about accepting the diagnosis of brain death and donating organs, there must be an education process which involves religious and spiritual leaders from the local community as well.

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Contraception – an Islamic perspective

Amin Habib MSc¹, Hawwa Iqbal BSc², Saad Amer FRCOG, MD³

1 - King's College London, Medical Student

2 - University of Leeds, Medical Student

3 – Professor, Obstetrics and Gynaecology Department, University of Nottingham,

Correspondence: Saad.Amer@nottingham.ac.uk

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Abstract

Currently, the stance of Islam on the use of different methods of contraception remains unclear amongst most Muslims including physicians as well as couples wishing to use family planning. This uncertainty as well as the confusion caused by conflicting views from different sources have led to a low uptake of contraception in most Muslim countries. Although most Muslim governments legitimise contraceptive methods, many Muslims have doubts about the incentives of this approach being politically driven. In this article, we will study the main ethical and religious issues associated with the use of modern contraceptive methods. We will also present the *Islamic* stance on contraception with an evidence-based approach considering all available sources of juristic Islamic law.

Introduction

Although contraception is widely practiced globally by people of all religions and cultures including Muslims, the exact position of Islam on this important practice remains unclear amongst a large section of the Muslim community. Whilst studies have found up to 75% of western women of reproductive age use contraception, the United Nations reported a lower utilization of contraception in predominantly Muslim countries ranging between 38% to 63% (Budhwani et al, 2018). This wide variation in the uptake of contraception amongst Muslim communities reflects the differences in views and lack of clarity on the Islamic law on conception as well as several other cultural and social factors.

Currently, most Governments of Muslim countries legitimise and promote contraception and family planning in order to overcome the rapidly growing population. However, this governmental enthusiasm is met with resistance from most Muslims due to the prevailing belief that contraception is prohibited or at least “*makruh*” (disliked) in Islam. Furthermore, many Muslims believe that the governmental enthusiasm towards contraception is driven by political incentives.

It is well known that Islamic laws and teachings play an important role in all aspects of the lives of Muslims especially when it relates an ethical issue such as reproduction. The primary sources of Islamic laws are the Quran and authentic prophetic sayings (Hadith), which constitute the Islamic Religious Texts (IRTs). The Quran does not explicitly mention contraception. The Hadith, on the other hand, approves the withdrawal method of contraception (*Azl*). Traditionally, the position commonly held by many Islamic jurists (*Ijmaa*, the third source of Islamic law) stems from Al-Ghazali's interpretation that coitus interruptus is not completely forbidden, but *makruh*. However, a minority of scholars have completely prohibited any form of contraception. More recently, with a better understanding among the current jurists of the different types of contraceptive methods, it has been possible to legitimize most modern contraceptive techniques using *Al-qiyas* (analogical reasoning), which is the fourth source of Islamic law.

Another area of misunderstanding amongst Muslims is viewing contraception as a theological rather than a Fiqh issue using arguments such as “contraception interferes

with the will of God” being used to demonise contraception.

This article will provide a brief overview the commonly used contraceptive methods, the main ethical and religious issues related to different methods, the role of procreation in Islam and the current *Fiqh* stance on contraception.

Current methods of contraception

Several types of contraceptive methods are currently in use. These are divided into two main categories including temporary (reversible) and permanent (irreversible) contraception (also called sterilisation).

Temporary (reversible) methods

Temporary contraceptive methods prevent conception by different mechanisms and fertility is resumed after discontinuation. These methods are further classified into natural contraception, barrier methods, intra-uterine devices and hormonal contraception.

Natural Methods

The natural methods include fertility awareness (also called the rhythm method) and coitus interruptus (also called withdrawal and the Arabic term is *Azl*). In the former method, the couples avoid sexual relationship during the fertility window of each cycle. Both methods have limitations, carry a relatively high failure rate and are not suitable for every couple. For instance, fertility awareness requires a good level of education and is only suitable for women with very regular cycles.

Barrier methods

Barrier methods on the other hand include the male condom, the cervical caps and female condom. These barriers prevent the sperms from entering the female reproductive system and reaching the woman’s egg thereby preventing fertilization. Barrier methods are mostly used with spermicides to enhance effectiveness. They are relatively successful, but not suitable for or acceptable by all couples.

Intra-uterine devices (non-hormonal)

Intrauterine contraceptive devices (IUCDs), commonly known as coils, are special devices made of copper and plastic, which are placed inside the cavity of the womb. It is exactly not known how they work, but it is widely held

that the IUD releases copper ions which impair sperm function thereby preventing fertilization of the egg. If the egg has already been fertilised, copper ions may prevent its implantation in the lining of the womb. Although some may argue that this is an early termination, this is not a universally accepted view. According to guidelines issued by American College of Obstetricians of and Gynecologists, termination is only considered if disruption occurs after implantation has been established, which does not happen with the IUD (Practice Bulletin No. 152).

Hormonal methods

Hormonal methods include administration of the female hormones (oestrogen and / or progestogen) through different routes to interfere with the reproductive function of the woman. They are generally divided into combined oestrogen + progestogen or progestogen only preparations. All hormonal preparations are highly effective, but commonly cause some undesirable side effects. The combined preparations are widely used, and they are commonly given in the form of daily tablets for the first three weeks of the cycle. These preparations work by inhibition of ovulation i.e. they stop the release of the egg from the ovaries.

On the other hand, the progestogen only preparations come in different preparations including daily tablets (called the mini-pill), three-monthly injections, intrauterine devices and implants that are inserted under the skin in the arm (lasting for 3 – 5 years). They work through two main mechanisms including stopping ovulation and preventing the passage of the sperms through the reproductive system due to thickening of the mucous secretion of the neck of the womb.

Emergency contraception

Emergency contraception is used soon after an unprotected intercourse and is generally highly effective. It can be achieved by administration of the morning after pill (levonell or ellaOne) or insertion of a copper intrauterine device (IUD). Levonell is a high dose combined contraceptive pill, which should be given within three days after intercourse. EllaOne is an anti-progestogen called ulipristal acetate, which is given within five days. The morning after pill works by inhibiting ovulation, so it will be ineffective if ovulation has already occurred. The mechanism of action of IUDs is as described above .

Permanent (irreversible) contraception

Permanent methods for contraception, also known as sterilisation, are commonly utilised in the western countries. In the female, sterilization is achieved by blocking the Fallopian tubes either by applying a special clip or by ligating it. This is usually performed via a laparoscopic (keyhole) procedure under general anaesthesia. Male sterilization is achieved by transecting the two tubes which convey sperms from the testicle to the urethra (called the vas deferens). This procedure is called vasectomy and is performed through small incisions in scrotum under local anaesthesia. Sterilization is highly effective in the male and female. Although considered permanent, sterilization can be successfully reversed via a surgical procedure, which is generally effective in helping women and men to regain their fertility.

Advantages, disadvantages and the necessity of contraception

Contraception confers many advantages for women and their families. Spacing pregnancies allows the woman to fully recover from childbirth and regain her health before starting another pregnancy. This is crucial for the wellbeing of the new-born who needs a healthy mother. On the other hand, successive pregnancies without gaps could be damaging to the woman and her offspring. Contraception is also beneficial in reducing maternal, foetal and infant mortality.

Contraception also offers many medical benefits such as relieving period pains, lightening heavy periods and protecting against sexually transmitted diseases. Other benefits include improvement of acne, premenstrual syndrome and iron deficiency anaemia. Contraception also offers protection against pregnancy related risks (especially in high risk women), certain reproductive cancers and bone thinning.

Social benefits of contraception include allowing the parents to focus on providing good support and quality upbringing for their children. Contraception may also prevent financial strains on the family (World Health Organization, 2018).

Based on the above, contraception seems to be a necessity for the health and success of the family. Practically, if contraception is not used, a family may potentially grow to an unmanageable size resulting in poor health, upbringing and education of the children. It is worth mentioning here that raising children well is a

major Islamic responsibility and obligation on the parents. Furthermore, successive pregnancies without gaps are medically considered harmful to the mother and baby and indirectly to the society. Based on the well-established major Islamic legal Maxim known as “*La Darar Wa La Dirar*” i.e. no intended or unintended harm allowed, successive conceptions without gaps may be considered prohibited “*Haram*”.

There are also several disadvantages with the use of contraception. Most hormonal contraceptives are associated with significant side effects such as irregular bleeding, headache, weight gain and mood changes. Oestrogen containing contraceptives may also pose some health risks such as deep vein thrombosis and cerebrovascular diseases.

Islamic Concept of Procreation

Islam greatly values and encourages marriage and reproduction to protect humanity and to allow nations to flourish and survive. This is highlighted in Islamic scriptures, with a huge emphasis on the concept of marriage, family formation, lawful reproduction, and maintaining a correct and morally functioning society (Serour, 2013). There is a consensus amongst scholars of Islam that the concept of procreation and Islamically lawful reproduction is one of the great objectives of Islamic law (*Maqasid Al-Shari'a*). This is highlighted in an authentic prophetic hadith stating: ‘Marry those who are loving and fertile, for I will be proud of your great numbers before the other nations on the day of judgment’ (Ibn Haban).

Foundation of Fiqh Rulings in Islam

In general, Fiqh is primarily sought from Islamic Religious Texts (IRTs) including Quran and authentic Prophetic Hadith. In the absence of a direct IRT, Islamic rulings are usually provided by reputable and respected Scholars either as individuals or institutions based on specific and well-documented evidence. This evidence could include indirect IRTs, rulings on similar issues (*Qiyas*), or well-established Islamic legal Maxim (*Usool*). In Islam, no scholar or Fatwa council has the authority to produce a verdict on any matter without providing an acceptable evidence.

In order to reach a valid Islamic ruling, scholars need to have a good grasp of the Principles of Fiqh, a good understanding of the subject matter and awareness of all cultural circumstances of the population concerned.

They also need to consider all potential consequences of their rulings. All these require input from multidisciplinary experts from various relevant fields.

Apart from the unanimously accepted and well-established Islamic rulings based on IRTs and Usool, many Scholars and schools of *Fiqh (madhhab)* have produced, over the centuries, many different rulings “*Fatwas*” on various issues concerning Muslims. Many of these rulings need to be reviewed and updated by contemporary scholars in view of emerging new information. Furthermore, current scholars need to address new issues that were not known to the predecessors. In recent years, there has been a greater focus by scholars to collate their efforts in research papers and articles, which can be widely available for those seeking the Islamic stance on various issues (Sachedina, 2005; Padela, 2007; Badakhsh, Balouchi and Balouchi, 2016); the Islamic Code of Medical Ethics (The Islamic Code of Medical Ethics, 1982) being a good example of this.

Ruling on Contraception

General Rulings

Considering Islamic IRTs, contraception is not mentioned in the Quran, but several authentic prophetic sayings “*Hadith*” indicate the permissibility of coitus interruptus (*‘azl*) as a means of preventing conception. Traditionally, the position held by modern day Islamic jurists stems from the classical view of Imam Al-Ghazali's interpretation that coitus interruptus is an acceptable but disliked (*makruh*) act.

Applying the concept analogical reasoning “*Al-Qiyas*” has allowed modern Muslim Scholars and Islamic Fatwa councils to legitimize various contraceptive techniques based on the permissibility of coitus interruptus. Currently, there generally two different views on family planning, with one generally approving in all circumstances (e.g. Al-Azhar Fatwa Committee, see below) and the other only allowing in the presence of a valid reason (*makruh tanzihī*, see below).

In 1988, Al-Azhar Islamic Research Academy, Fatwa Committee issued an important Fatwa approving family planning (Al-Azhar Islamic Research Academy, 1988). The committee stated that Islamic Law allows for individuals to purposely delay childbirth, so long as it is done within Islamic Law's general rules, prescribed by a trustworthy physician, and is not harmful when practiced. Another condition includes the consent of both spouses. This is based on the principle that having a child though

the marital relationship is the right of both parties and contraception without consent denies the spouse his/her right (Faraz, 2012). The Fatwa also confirmed that family planning does not contradict Allah's words, but it is not permissible for a country to codify a law for family planning.

On the other hand, some Fuqaha allowed contraception only when there is a valid reason. In the absence of such a reason, contraception is considered a disliked (although tolerated) act due to its contradiction with the Islamic encouragement of procreation (*makruh tanzihī*) (Faraz, 2012). Examples of these reasons include increased risk of birth defects; unsuitable personal circumstances (wealth, housing etc.); mother's weakness or ill health, unstable marital relationship, fear if impact on the upbringing of current children and being away from home for a period of time. (Faraz, 2012; Atighetchi, 1994)

Ruling on reversible contraception

Natural methods are permissible as they comply with the Islamic general rules. Barrier methods are also allowed, although female condoms and caps are disliked as they require an item inserted into the vagina. Some scholars of *Fiqh* state that inserting items unnecessarily through the vagina is disliked. Similarly, for the same reason, the use of intrauterine devices is permissible, but discouraged. Finally, hormonal methods are regarded permissible provided that they pose no health risk based on medical advice (Faraz, 2012).

Ruling on irreversible contraception (sterilisation)

There seems to be a significant body of *Fiqh* prohibiting sterilisation. In the absence of a direct IRT, Scholars applied the concept of analogical reasoning “*Al-Qiyas*” to forbid sterilization being similar to castration, which is forbidden by an authentic prophetic hadith. Al-Bukhari narrates, that Abu Hurayrah (may Allah be pleased with him) sought the Prophet's permission to undergo castration, as he could not afford to get married, but the profit did not allow him. Also, in a hadith narrated by Imam Ahmad, the Prophet (PBUH) forbade fighters in the cause of Allah, who miss their wives for long times, from getting castrated.

Another “*qiyas*” used to prohibit sterilization is that it leads to a change in the creation of Allah, which is not permissible in Islam. Preventing the reproductive organs

from performing their natural function contradicts the Divine Wisdom behind creating both sexes.

Based on the above, the Fuqaha concluded that sterilization should be forbidden, unless justified on serious health grounds.

However, with all due respect to all Scholars, the above two Qiyas methods are not accurate from a medical point of view. Whilst sterilization is prevention of the reproductive function, castration is prevention of the sexual function, which completely different. With regards to permanent contraception being a change of the creation of Allah, this could also apply to temporary contraception, which has the same effect on reproduction, but on a temporary basis. If prevention of reproduction is a change of Allah's creation, it should be the same regardless of being temporary or permanent. We therefore urge Scholars to reconsider their position on permanent contraception after careful review of the available medical knowledge.

Conclusion

Most modern Scholars and Islamic Fatwa councils legitimize various reversible contraceptive methods based on the Prophetic approval of the withdrawal method. Whilst some Scholars allow reversible contraception in all circumstances, others consider it a disliked act, which is only permissible when there is a valid medical or social reason. On the other hand, there is a consensus amongst Scholars that permanent contraception is forbidden based on the prophetic disapproval of castration and on the prohibition of any act that changes of creation of Allah. However, this rational warrant further consideration by Scholars given the inaccuracy of these conclusions based on medical knowledge.

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The correlation between UK Good Medical Practice guidance of the GMC with the established virtues of Muslim Physicians

Nadia Khan ¹, Amer Hamed ²

¹Consultant in Palliative Medicine, John Taylor Hospital, Birmingham, UK

²Consultant Cardiologist, Stockport, UK

Correspondence: Nadia.khan28@nhs.net

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Revalidation was introduced in the UK in 2012 as a process by which all licensed UK doctors demonstrate that they are up to date and fit to practice in their chosen field, and are able to provide a good level of care¹. The standards for revalidation reflect the UK General Medical Council's (GMC) core professional guidance for doctors, *Good Medical Practice (GMP)* (2013)². Whilst revalidation is a recent phenomenon and is still in the process of embedding within the UK medical system, the concept of ascertaining quality assurance of physician care has been established within the Islamic medical ethos, with Ibn Al-Qifti (1172-1248 AD) advocating the supervision and maintenance of medical knowledge including by the periodic checking of physicians' medical knowledge and practice, alongside the established licensing procedures for medical practitioners which were developed in the tenth century A.D.³.

The ethical code of physician conduct (Adab al-Tabib) is well recognised within the discourse and practice of medicine in Islamic cultures through the ages. The core standards are rooted within the moral virtues espoused within the Quran and Hadith, and have reflected the prevailing virtue ethics of the Islamic cultures of the time as articulated by scholars and physicians such as Al Razi, Al Ruhawi, Ibn Butal and others, with a noticeable emphasis on the physician as a moral being in his/her own right. In contrast, *Good Medical Practice* defines a framework of principles and values of professional conduct, which has been developed from consultation with medical professionals, patients and other societal stakeholders and so reflects UK secular societal values

including the increasing value of individualism and patient autonomy. The GMC state that "serious or persistent failure to follow it [*Good Medical Practice*] will put a doctor's registration at risk"², and so judges the physician's actions, rather than the physician's moral fibre.

Nevertheless, in practice, the domains of *Good Medical Practice* show a significant alignment with the Islamic ethical concepts guiding the Muslim physician, due to a convergence on what may be considered a set of universal ethics of the medical professional. This will be expanded on below.

GMP Domain 1 (Knowledge, skills and performance) highlights the need for physicians to develop and maintain professional performance, apply knowledge and experience to practice.

This correlates with the Islamic virtue of pursuit of excellence. The Prophet, peace and blessings upon him, said: "Verily, Allah loves proficiency in all things" [*Muslim*] and instructed the Ummah to implement excellence in all aspects of life, even to the point of routine tasks such as the slaughter of animals: "Verily Allah has enjoined goodness (*ihsan*) on everything; so when you kill, kill in a good way and when you slaughter, slaughter in a good way. So every one of you should sharpen his knife, and let the slaughtered animal die comfortably" [*Sahih Muslim 21:4810*]. It may be easily deduced how valued the pursuit of excellence would be, when practicing the art of medicine.

The Qur'an describes an attribute of the inheritors of al-Firdaus (the highest rank in Paradise): *"Those who are faithfully true to their amaanaat (all the duties which Allaah has ordained, honesty, moral responsibility and trusts, etc.) and to their covenants."* [al-Mu'minoon 23:8]. The practice of medicine to a certain standard of proficiency is a trust between the Muslim physician, and the licensing regulatory body on behalf of the general public, and so should be honoured.

Domain 1 also and record work clearly, accurately and legibly. Clinical recordkeeping should reflect principles of physician-patient confidentiality, honesty and transparency – which is also highly valued in the Islamic ethical context: *"And cover not Truth with falsehood, nor conceal the truth when you know what it is"* [al-Baqarah 2:42]

In reaching for excellence in all aspects of professional work for the Muslim physician, this links to other domains within the *GMP* framework.

GMP Domain 2: Safety and Quality highlights need to take part in systems of quality assurance and improvement in order to promote patient safety. Domain 2 focuses on responding to risks of patient safety, and offering help within emergencies and to those who are vulnerable, as well as protecting patients who are posed a risk by a physician's health. The removal of harm to others is a foundational legal maxim in Islamic law – *"Do not cause harm or return harm"* [Sunan Ibn Majah 2340] and highlighted through numerous lived examples and sayings within the life of the Prophet, peace and blessings be upon him – *"Whoever believes in Allah and the Last Day, let him not harm his neighbor"* [Sahih al-Bukhari 6110] *"The Muslim is the one from whose tongue and hand the people are safe, and the believer is the one who is trusted with the lives and wealth of the people"* [Sunan al-Nasa'I 4998]. The great emphasis within the Islamic ethical tradition on not causing harm to others, and actively reducing harm, aligns with the medical professional standard requirement to engage in clinical governance and protect patient safety.

GMP Domain 3 highlights the need for effective communication, partnership and teamwork. Physicians should be able to take into account the views of patients, meet their communication needs and respond honestly. In addition, they should work collaboratively, treat others fairly and with respect, and honour any agreed work contracts, including contractual notice. The GMC stipulates that physicians should be prepared to teach and

train, be honest in assessments, and take on a mentoring role.

Teamwork can be seen as a group-contract in relation to rights and responsibilities to achieve a certain aim in the area of work. An emphasis on teamwork with others within domain 3 is harmonious with the strong emphasis on honouring agreed contracts with others, as a defining characteristic of a Muslim: *"Those who faithfully observe their trusts and their covenants."* (Surah An-Nur 24:8). The Prophet (peace and blessings upon him) demonstrated excellence in just leadership, communication and teamwork when it came to achieving various goals in establishing the community of believers in Madinah. His communication and conduct with others was underpinned with the Islamic ideals of respect, patience and mercy: *"Be merciful to others and you will receive mercy. Forgive others and Allah will forgive you."* (Musnad Ahmad 7001)

Regarding the Prophet (peace and blessings of Allah be upon him), Anas (may Allah be pleased with him) relates: *"I served him for ten years, and he never said 'Uff' (an expression of disgust) to me. He never said 'Why did you do that?' for something I had done, nor did he ever say 'why did you not do such and such' for something I had not done."* (Al-Bukhari and Muslim).

The Prophet (peace and blessings be upon him) acted as a role model, mentor, guide and teacher throughout his life with numerous examples contained within his Seerah. Although a detailed review is beyond the scope of this article, the attitude and approach he took when fulfilling these roles provides an exemplar par excellence for Muslim physicians meeting domain 3, as praised in the Quran: *"And most surely you conform (yourself) to sublime morality"* (Al-Qalam 68:4).

The final Domain 4 focuses on the maintenance of physician trust. It outlines the need for respect of patients, not exploiting vulnerability, and acting with honesty and integrity in all dealings and communication with patients, colleagues and other health and societal stakeholders. Within the Islamic tradition, there is an extremely high level of value placed on fairness, uprightness and trustworthiness, with numerous exhortations within the Quran and Hadith: *"Oh you who believe! Fear God, and be with those who are true (in word and deeds)." (At-Tawbah 9:119)*. The Prophet (peace and blessings be upon him) would say in his sermons: *"Remember, there is no faith in him who is not trustworthy; there is no place for him in religion who cares not for his pledged word or promise."* and *"The*

Muslim is one from whose hand and tongue the people are safe, and the believer is one people trust with their lives and wealth.” (Sunan Nisa’i 4998). Another tradition says: *“The signs of a hypocrite are three: when he speaks, he is false, when he promises, he fails; and when he is trusted, he plays false.”*

The principles of professionalism defined within the 4 domains of *Good Medical Practice* are encompassed within the traditionally established ethical conduct of the Muslim doctor (*adab al-tabib*), as defined by physicians such as Al-Ruhawi in the 9th century CE. It can be seen that there is no incongruity between the practical manifestations of two codes, although the underlying inspirational source may be differ. For the virtuous Muslim physician, maintaining and honouring the principles of professionalism is an expression of his or

her *adab* (an inner disposition that inclines towards good) with the Creator and creation.

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Islamic Bioethical Perspectives on Gender Identity for Intersex Patients

Nasir Malim^{1,2}, Aasim I. Padela^{2,3,4}

¹*Department of Medicine, Montefiore Medical Center, Bronx, New York; USA*

²*The Initiative on Islam and Medicine, the University of Chicago; USA*

³*Section of Emergency Medicine, Department of Medicine, the University of Chicago,*

⁴*Maclean Center for Clinical Medical Ethics, the University of Chicago*

Correspondence: nasir.g.malim@gmail.com

Keywords: Intersex, Khunthā, fatwa, Islamic bioethics, Gender

Abstract

Best practice policies for the care and treatment of intersex patients, specifically in deciding their gender assignment, are a disputed topic. Analyzing Islamic resources regarding intersex individuals helps inform Islamic bioethical views on the most appropriate medical approaches to diagnosis and treatment. Based on readings of a classical Islamic legal manual as well as contemporary legal rulings we contend that Islamic legal precedent problematizes the notion of a complete gender binary, and provides precedence for both early and delayed approaches to medical intervention for intersex patients. Additionally, we discuss how such scholarly understandings set the stage for negotiating the gender identity of intersex patients.

Introduction

Although record keeping practices make it difficult to collect accurate data on intersex, some studies have indicated that the frequency of live births with some form of ambiguous genitalia is as high as 2%, with high levels of complexity in medical management and decisions surrounding gender assignment (1, 2). Data is again limited when analyzing patient satisfaction in long-term quality of life studies based on current treatment policies, specifically “corrective” genital surgery (3). With increasing numbers of adolescents seeking treatment with gender identity services, greater medical resources at hospitals and medical schools devoted to improving transgender health, and an overall improved recognition of the harms of gender dysphoria with underlying discordance between expressed and experienced gender and assigned biological sex, there is room to further explore medical management of intersex patients that achieves the best physical, psychological, and emotional health outcomes (4, 5). Beyond discussions of medical

management, general exploration of the complexities in gender and sexuality has been of greater interest recently within academic discourse, as demonstrated by the rise in “new college courses, concentrations, majors, and programs in gender and sexuality studies(6).

Similar discussions are found within Islamic religious and scholarly circles as well, highlighted by a recent decree from Pakistani religious clerics declaring “full marriage, inheritance, and funeral rights for transgender people under Islamic Law” (7). Ethnographic works speaking of the gender and sexuality in the Muslim majority nation of Indonesia discuss the *Bugis* group, a group that challenges the traditional model of gender dimorphism between male and female. The *Bugis* in Indonesia, not unlike other groups in countries such as India, problematize a simple categorization of gender into male and female based on identifiable physical characteristics (8). In her book *Gender Relations in an*

Indonesian Society, Nurul Ilmi Idrus adds to this work by discussing how some of those who study the *Bugis* group acknowledge room for a gendered space beyond the dominant male and female paradigm, and include a third, or even fourth or fifth gender (9).

This paper seeks to build upon this larger discussion of gender complexity by examining intersex conditions and what is considered appropriate medical care through an Islamic bioethical perspective. Just as more clinical and outcome research is needed to develop best care practices for intersex patients, bioethical analyses can help inform current approaches as well. Specifically, we analyze various biomedical and Islamic definitions of intersex, think through contemporary notions of gender, and describe what Islamic bioethical considerations can contribute to modern medical treatment practices concerning intersex individuals.

Intersex, *Khunthā*, and Disorders of Sex Development

It is important to understand exactly what is meant by the term intersex and other related terms across different fields. Biomedical scientists consider intersex as a deviation from a single, idealized version of male and female in regard to chromosome composition, gonadal structure, hormone levels, and structure of internal genital duct systems and external genitalia. In medical practice, the term intersex has been replaced by the umbrella term disorders of sex development (DSD). Diagnostically (DSD) encompasses any problem associated with atypical development of chromosomal, gonadal, or anatomic sex (10).

A useful definition provided by the Intersex Society of North America, a group that seeks to end stigma and unwanted genital surgeries for those deemed intersex, defines the condition as “a general term used for a variety of conditions in which a person is born with a reproductive or sexual anatomy that doesn’t seem to fit the typical definitions of male or female” (11).

Lastly and of particular importance to this discussion is the term *khunthā*, a term analogous to intersex used globally in Islamic legal context as well as scholarly discourse. Ultimately what is commonly shared through all these definitions is atypical sexual development leading to ambiguity in the assignment of biological sex. This paper will primarily use intersex and the social and legal equivalent in Islamic tradition *Khunthā*, as well as DSD as it is common in contemporary medical work.

Medical Classification and Treatment of Intersex Conditions

The typical process when health practitioners encounter a patient with ambiguous genitalia consists of a complete family and prenatal history, physical exam, and noninvasive procedures such as karyotyping, imaging tests, and hormone serum level tests, among others. Based on the results a specific diagnosis may be made that orients further gender assignment. Treatment consists of one or all of sex assignment surgery, hormone replacement therapy, and psychosocial support (10).

In regard to surgery, the timing of when to perform the surgery is a highly contentious issue that incorporates two opposing views regarding treatment practices. On one hand is the “optimal gender policy” wherein genital surgery is recommended within the first year of life in hopes of fostering an unambiguous gender identity congruent with body image and reducing potential harmful psychosocial influences around ambiguity (12). This is possible assuming a diagnosis is made at birth or soon after. On the other hand, is the “full consent policy” which seeks to postpone any operation until the child is old enough to give full consent and approve surgical treatment addressing genital ambiguity (3). This delayed approach is done to avoid major psychological turmoil later in life caused by a premature operation that causes discord between physical gender identity and other forms of gender identification. It is important to note here that conditions of imminent harm with uncontroversial surgical treatments such as hypospadias in genetic male infants should not be delayed (13).

Conversations concerning the medical treatment of intersex individuals are occurring throughout the Muslim world as Muslim practitioners and researchers aim to determine best practice models while seeking appropriate reference of Islamic ethical and legal sources. We will review some of this discourse by examining a classical legal manual and modern legal opinions (*fatāwa*).

A view on Intersex within an Islamic Legal Manual

In this section we explore the contents of the Chapter of Intersex from a traditional book on Islamic jurisprudence (*fiqh*). *Mukhtasar al Qudūri* is a classical textbook taught in traditional Islamic studies seminaries in numerous educational institutions across the world as a primer for the Hanafī School of *fiqh* (14). Imam Abul Husayn Ahmad ibn Muhammad al Qudūri wrote *Mukhtasar al Qudūri* in approximately the 12th century AD(15). The

specific chapter titled “The Chapter of Intersex” (Kitāb al khunthā), is a short chapter that deals with the legal proceedings and considerations for transactions and worship of intersex individuals.

Kitāb al Khunthā begins by providing a definition of what the term *khunthā* means according to jurists at the time:

إذا كان للمولود فرجٌ و ذكرٌ فهو خنثى

“If a child is born with male and female genitalia, then the child is intersex.” The understanding of intersex here clearly relies on visible physical ambiguity of the genitalia. The chapter moves on to providing criteria for helping to determine the sex of a child born with such ambiguity.

و إن كان يبول من الفرج فهو أنثى، فإن كان يبول من الذكر فهو غلامٌ

“So if the child urinates from the male genitalia, he is a boy. And if the child urinates from the female genitalia, she is a girl.” This methodology for helping to determine gender is derived from a saying of the Prophet Muhammad in which he was asked, “How does one (who is intersex) inherit? So he said, according to how they urinate” (15). The method of urination and the genitalia used indicates a form of empirical indication of gender categorization. The text then goes on to discuss further criteria for determining gender based on the method of “according to how they urinate” in more difficult situations. If unclear one should examine which external genital they urinate from first, and which one releases more urine.

The text then transitions to what happens at puberty.

و إذا بلغ الخنثى و خرجت له لحية أو وصل إلى النساء فهو رجل، و إن ظهر له ثدي كثدي المرأة، أو نزل له لبن في ثدييه أو حاض أو حبل أو أمكن الوصول إليه من جهة الفرج فهو امرأة

“And if the intersex individual reaches puberty and a beard emerges, or he has sexual attractions toward women, then he is a man. And if breasts appear like the breasts of women, or milk comes out from the breasts, or she menstruates, or she becomes pregnant, or if it possible to enter her from the vaginal canal [i.e. sexual intercourse is possible] then she is a woman.”

Another type of criteria for the determination of gender after the onset of puberty is by using secondary sexual development characteristics. Sexual characteristics that are female sex specific, as described above, help to

classify one as female, and sexual characteristics that are male sex specific help to classify as male. An interesting point to note is that sexual attraction is included here in the discussion of determining gender.

The gender determination discussion concludes with the recognition that even after attempts have been made, it is still quite possible to not be able to classify someone into a male or female gender. The text mentions this before proceeding.

فإن لم يظهر له إحدى هذه العلامات، فهو خنثى مشكل

“And if either of these signs are not apparent, then the individual is a complicated intersex (*khunthā mushkil*).”

Lastly the chapter closes by discussing specific rulings as they pertain to worship and legal transactions stating that during congregational prayer intersex individuals should stand for prayer in rows that are between the rows for men and women.

“And if the individual stands behind the Imam (for prayer), the individual stands between the rows for the men and the rows for the women.”

As far as this text provides insight for the medical treatment context it is clear that in some cases of intersex it may be easier to assign sex earlier in life, some may be more difficult and require more delay, and some still may not be possible with certainty. Concessions were given to this latter type of cases, as the *khunthā mushkil* category was accepted and accommodated both in social and religious practice. We learn three concepts of interest from this chapter. Firstly the concept of intersex according to classical Islamic jurists pertains mostly to visible primary and secondary sex characteristics. As we will see in more discussion below, the Islamic notion of intersex has since broadened to include other indications as medical knowledge on the subject has improved. Secondly, the usage of specific internal psychological and emotional factors such as sexual attraction and orientation to help in the decision process may indicate a considerable role of the individual themselves in determining their gender preference. This point however needs to be expanded by Islamic scholarship.

Thirdly, the text further contributes to an understanding of gender in Islamic legal practice. It is undeniable that significant importance is placed upon gendering an individual as male or female. For Muslims, this gender determination implicates numerous ritual practices and obligations, legal transactions, and interpersonal rulings. Yet despite the efforts developed to help determine

gender that the first half of the chapter considers, it maintains that in some cases the process of determining gender may simply be too difficult. That is to say, although the chapter indicates that Islamically a gender binary is sought out, Islamic law acknowledges this may not always be possible and there may be a third ambiguous category.

Fatāwa Pertaining to the Treatment of the “Intersex Condition”

Using the Van Den Branden and Broeckaert methodology of online *fatāwa* review, we examined English-language internet using the search terms “intersex,” “khunthā,” “hermaphrodite”, and “disorders of sex development” on June 23, 2019(16). This strategy was supplemented with additional relevant *fatāwa* using the same search terms through searches in Medline (via Pubmed) and the online Islamic Medical and Scientific Ethics (IMSE) library database at Georgetown University. Specifically as it relates to medical treatment, we analyzed the theological and ethical undergirding of these *fatāwa* concerning modern methods of determining gender and the legal rulings pertaining to assignment of gender.

The online search yielded nineteen total *fatāwa*, of which three were discarded because they did not discuss biological or ethico-legal aspects of intersex (Table 1). The PubMed and the IMSE database yielded seven more opinions from various Islamic jurisprudential councils and organizations (Table 2). Thus twenty-three *fatāwa* were reviewed. They discussed the concept of sex change or gender reassignment surgeries in the case of intersex individuals. There were two primary themes throughout the *fatāwa*. The first discussed the meaning of the term intersex, which was also used interchangeably with hermaphrodite and *khunthā*. The second centered on a key point: although under normal circumstances procedures that alter physical markers of biological sex are not allowed, in the case of intersex patients such a procedure may be permitted on the basis of medical need. Some areas of nuance also accompanied this second theme. Some *fatāwa* additionally contributed ancillary points including legal social rulings for intersex individuals.

Because we discussed terminology previously, we now turn our attention to the juridical rulings. The main controversy under ethical consideration throughout all these *fatāwa* was how to resolve tensions between recommending the seeking of medical treatment with the prohibited aspect of changing Allah’s creation.

As a general principal, permanent bodily change is prohibited as it opposes the sanctity of “Allah’s creation”. One *fatwa* states as evidence of this prohibition, “Allah relates to us that Satan says: ‘And I shall order them and they will alter Allah’s creation.’”(17) The case of the intersex patient however is given exception from this general rule, as it is deemed to accord with the Prophet Muhammad’s statement to seeking treatment for a medical condition -“O Servants of God seek medical treatment for your ailments”(18). These ideas are summarized by the following *fatwa*:

“With regard to one who has in his physical makeup both male and female characteristics, we should see which is prevalent in his case. If masculine characteristics are prevalent, then it is permissible to treat him medically in order to remove any ambiguity about his masculinity. If feminine characteristics are prevalent, then it is permissible to treat her medically in order to remove any ambiguity about her femininity. That may be done whether the treatment is by means of surgery or hormone therapy, because this is a disease, and the purpose of treatment is to heal disease, not to change the creation of Allah, may He be glorified and exalted.” (19).

As indicated above, treatment is congruent with current medical recommendations. In addition to treatment, diagnostic criteria have also been expanded beyond the classical concept of visible physical characteristics in external genitalia. One *fatwa* offers a conception of intersex that is more congruent with modern medical definitions by stating that a goal of treatment is to “achieve agreement between a person’s exterior and chromosomal makeup”(17). Ultimately a medical practitioner is responsible for determining diagnosis and treatment procedure. In response to a question from IslamWeb regarding gender assignment through surgical means, the *fatwa* titled “He was born hermaphrodite and needs sex change operation” states:

“If you are sure that you are a male, you should be treated as a male and it is not permissible for you to undergo any operation to change into a female. However, you are permitted to undergo an operation to remove the features of femininity.

On the other hand, if a person is not sure about his actual gender, he is, considered a problematic hermaphrodite. In this case, this person is dealt with according to rulings which are safest, as previously clarified in *Fatwa* 82158. This type of hermaphrodite is allowed to undergo an operation to change into a male or a female according to the opinion of the doctors...” (20)

The process of determining if medical need is present is left to the treating physician.

Additional *fatāwa* echo sentiments similar to the statements from *Kitāb al khunthā* above.

Secondary physical characteristics that develop after puberty as well as the sexual orientation of the individual in question are useful in helping to determine the assignment of gender (21). In fact, one *fatwa* goes as far as stating that gendering decisions regarding those with intersex conditions should wait until after puberty in order to allow for secondary sexual characteristics such as the emergence of breasts or menstruation to help resolve the gender identity question (22). In situations with challenging cases of intersex, we have additional policy implications concerning timeline for diagnosis and treatment:

“But in the case of one who was created with both female and male genitalia – this is what is called ambiguous intersex – it is not permissible to be hasty in removing one and making the other more apparent. Rather we should wait until it is known what Allah, may He be exalted, will decree for this individual, which may become apparent after some time has passed” (23).

This ruling judges there to be a benefit to waiting before gender assignment surgery is performed and thus supports the delayed approach.

Gendering Society and Gender Ambiguity

A point of ambiguity in *Kitāb al khunthā* and the *fatāwa* is the usage of the term gender. As used in the process of determining an intersex individual’s gender, gender is a term that intersects the current paradigms of both gender and biological sex. In this way gender and biological sex are used somewhat interchangeably, and arguably incorrectly. According to the World Health Organization, “sex refers to the biological and physiological characteristics that define men and women,” whereas gender is “the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women,” (24). In the Islamic sources gender is primarily used to discuss whether an intersex individual is male or female based on physical, chromosomal, or hormonal characteristics. This is more accurately representative of the term biological sex. As mentioned above, Islamic law appreciates the critical need for categorizing one as male or female because of the differing religious obligations that ensue. Yet moving from biology to social roles moves from sex to gender.

This turn is seen in the *fatāwa* but obscured by the fact the jurists maintain the same terminology. Indeed the *fatāwa* and other references discuss the impact of biological sex on gender roles. Discussing actions specific to male and female gender such as prayer spaces delves beyond merely categorizing, and also considers the actionable expectations and roles that are male or female specific.

The very notion of describing how male and female gender is normally enacted, or how gender roles are performed, is a term used in the field of gender studies known as performativity. Indeed this notion of the significance of gender as performative is something common within contemporary studies in gender and sexuality. One of the earliest established texts on this topic came from Zimmerman and West, in which they state “We have claimed that a person’s gender is not simply an aspect of what one is, but, more fundamentally, it is something that one *does*, and does recurrently, in interaction with others” (25). Among the most famous contemporary theorists on the topic is Judith Butler, who argues that in this mode gender is a “stylized repetition of acts...which are internally discontinuous,” and that it is only real “to the extent that it is performed.” She adds that gender is “a constructed identity, a performative accomplishment which the mundane social audience, including the actors themselves, come to believe and to perform in the mode of belief” (26). That is to say unlike biological sex, gender is a transient concept based on societal cues. What may be an expected or acceptable act for a given gender at a particular place and time may not be considered acceptable under different circumstances (27). When viewing gender through this lens it becomes easier to understand why the process of sex categorization and through extension gendering was given so much emphasis in Islamic legal texts.

As mentioned in Rispler-Chaim’s chapter titled “The Khuntha,” the intersex individual presents not simply a medical challenge, but also a challenge to a Muslim society’s ability to provide gender norms assuming a gender binary. The establishment of gender remains essential to religious acts as well as to more mundane ones (28). Given the need to fulfill such religious and social obligations as determined by gender, it is no surprise that when deemed appropriate, such obligations were expanded beyond an established gender binary by creating space for a third gendered group. An intersex individual unsure of how their performative gender in regards to prayer or inheritance was offered unique alternatives. They were allowed to pray in the rows

between men and women, or allowed to inherit a sum in between men and women. In this way the *khunthā*, particularly the *khunthā mushkil*, may be deemed as a group with differing social roles and performance expectations of gender from what is considered male or female.

Conclusion

Based on the research presented above, there are numerous areas of contention when considering proper classification and medical treatment of intersex individuals from an Islamic bioethical viewpoint. As a purely biomedical concern, the question of the most appropriate time to treat an individual with a DSD is particularly significant. While clinicians and ethicists debate, there is no clear medical evidence for early intervention as opposed to a delayed intervention near or after puberty, except for cases of imminent or increased harm caused by delay in intervention of a DSD such as the increased rate of postoperative fistulas in treating older hypospadias patients (29). Meanwhile from an Islamic perspective, both the timing of and the criteria for medical intervention are also important. Although not all *fatāwa* opined on a timeline or clear decision maker for intervention, those that spoke to the concern in addition to jurisprudential text emphasized puberty as a milestone requiring waiting until an individual is old enough to make such decisions. This may additionally provide the benefit of improved physical and psychological health of intersex patients. Additionally, given that there is modern theoretical backing for gender variance beyond a strict binary, and precedent from traditional Islamic legal texts that indicate a gender beyond the binary, it is possible that in some cases a wholly accurate male or female designation cannot be made. Indeed where biological determination is inconclusive, it may be appropriate for an individual to carry on in life without fitting into a gender binary as male or female, and society should accommodate for this gender ambiguous position as something that is normal, even if not very commonly seen, as discussed in *Kitāb al Khunthā*. This idea may not be easily fit into all societies, including Muslim ones where a strict gender binary is deemed normative, but nonetheless Islamic texts presuppose the notion.

Our preliminary work also suggests some lines of further inquiry. For example, the Malaysian Ministry of Health suggests that Androgen Insensitivity Syndrome (AIS) and Congenital Adrenal Hyperplasia (CAH) should be included as part of the definitions for “*khunthā mushkil*” (18). This judgement notes that both CAH and AIS are particularly difficult for the purposes of determining and

assigning a single gender. Given this, can CAH and AIS widely be considered to be modern medical interpretations of *khunthā mushkil*, and are any other DSD classifiable as *khunthā mushkil*? Considering diseases are socio-culturally constructed and based on the techno-scientific vocabulary of the time, it is particularly interesting to consider updating the classical imaginary of *khunthā mushkil* with an enhanced biological vision from the modern age.

Additionally, another important area of investigation is to clarify the respective roles of the physician and the adult patient in determining medical need for gender assignment therapy. Some may argue that the physician should determine need based on biology, while others may suggest that the patient should determine need based on their psychological and identity needs. Hence just like in other areas of medicine, the debate between paternalistic models of the patient-doctor relationship and respect for patient autonomy would also be inflected into the intersex treatment debate. The question for researchers is- what are the Islamic stances on this debate? The *fatāwa* obliquely reference both ideals, further analyses should explicate out how each model may or may not fit within an Islamic moral framework.

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Appendices

Table I: Online <i>Fatāwa</i>	
<i>Fatwa</i> Source	Question that originated the <i>Fatwa</i>
Islam Web	She has no womb and wants to marry ¹
	Division of Inheritance among 4 sons, 3 daughters, and a hermaphrodite child ²
	Died leaving a full-brother and a hermaphrodite sibling ³
	He was born hermaphrodite and needs a sex change operation ⁴
	A hermaphrodite should be treated as an opposite sex from both sexes ⁵
	Why Allah created hermaphrodite people ⁶
	Operation for sex change ⁷
	Washing the beard and running the fingers through in Wudhoo ⁸
Islam Today	Sex-change operation before converting to Islam ⁹
	Sex change operation ¹⁰
Islam QA	Ruling on Marrying a Man who is intersex or impotent, and the difference between them ¹¹
	When is it permissible to do a sex-change operation from male to female or vice versa ¹²
	He has Klinefelter syndrome; does he have to wear hijab? ¹³
	Her outward appearance is like other girls but she does not have female organs; she has male organs. What should she do? ¹⁴
	He had an operation to turn him from a man into a woman ("sex-change"). Can he be alone with women? ¹⁵
	She changed her sex to male then she became Muslim ¹⁶

1 ("She has no womb and wants to marry," 2014)

2 ("Division of inheritance among wife, 4 sons and 4 daughters," 2017)

3 ("Died leaving a full-brother and a hermaphrodite sibling," 2010)

4 ("He Was Born Hermaphrodite and Needs a Sex Change Operation," 2009)

5 ("A hermaphrodite should be treated as an opposite sex from both sexes," 2006)

6 ("Why Allaah created hermaphrodite people," 2005)

7 ("Operation for sex change," 2001)

8 ("Washing the beard and running the fingers through in Wudhoo'," 2014)

9 (Al-Funaysān)

10 (Al-Jar, 2016)

11 ("Ruling on marrying a man who is intersex or impotent, and the difference between them," 2014)

12 ("When is it permissible to do a sex-change operation from male to female or vice versa?," 2014)

13 ("He has Klinefelter syndrome; does he have to wear hijab?," 2014)

14 ("Her outward appearance is like other girls but she does not have female organs; she has male organs. What should she do?," 2016)

15 ("He had an operation to turn him from a man into a woman ("sex-change"). Can he be alone with women?," 2004)

16 ("She changed her sex to male then she became Muslim," 2011)

Table II Supplemental *Fatāwa* From Medline and IMSE

Original <i>Fatwa</i> Source	<i>Fatwa</i> Topic	Article Source of <i>Fatwa</i>
Fatwa Committee of the National Council of Islamic Religious Affairs Malaysia	Permissibility of genital reconstruction surgery in patients with DSD	1. The Islamic Perspectives of Gender-Related Issues in the Management of Patients with Disorders of Sex Development ¹ 2. Islamic ioethical Deliberation on the Issue of Newborns with Disorders of Sex Development ²
The Senior <i>Ulamā</i> Council Saudi Arabia	Consensus statement on intersex issues	Disorders of Sex Development: Diagnostic Approaches and Management Options- An Islamic Perspective ³
The Islamic Fiqh Academy	The Issue of transforming the male into a female, and vice versa	Islamic Bioethical Deliberation on the Issue of Newborns with Disorders of Sex Development ⁴
The Permanent Scientific Research and <i>Ifita</i> Committee Saudi Arabia	N/A	Islamic Bioethical Deliberation on the Issue of Newborns with Disorders of Sex Development ⁵
Abd Al Rahman Muhammad Fawdah	The Ruling Regarding Intersex ⁶	IMSE
Hātīm Ahmad Abbās	Human sex change and the position of Islamic law regarding it ⁷	IMSE
Haneef, Sayed Sikandar Shah Adb Majid, Mahmood Zuhdi Haji	Medical management of infant intersex:the juridico-ethical dilemma of contemporary Islamic legal response ⁸	IMSE

1 (Zainuddin & Mahdy, 2017)

2,4,5 (Mohamed & Noor, 2015)

3 (Al Jurayyan, 2011)

6 (Fawdah, 2009)

7 (Abaas, 2011)

8 (Haneef & Majid, 2015)

COVID-19: The Pandemic, the Muslim Physician and Authentic Reflection

Usman Raja¹, Sabena Y Jameel²

¹Fourth Year Medical Student; University of Birmingham

²Medical Professionalism Lead and Senior Clinical Tutor, University of Birmingham, Former Associate Dean for GP Education, Birmingham

Correspondence: uxr778@student.bham.ac.uk

Abstract

Medicine and medical education have reduced reflection and its practice to a means of assessment and formalised it as an aspect of professionalism, which itself has become reduced and misunderstood in modern thinking. In doing so, this has led to a lack of engagement with authentic reflective practice for the healthcare worker. Muslim physicians, who belong to a faith that considers existential reflection a necessity, are also subject to the impacts of the reduction of reflection to an instrument or tool. However, when considering the true scope of reflection, it seems that the COVID-19 pandemic may provide a suitable environment for self-engagement and authentic reflection to prosper once more. In turn, particularly for the Muslim, physicians may see improved holistic practice and the betterment of patient-doctor relations.

Introduction

“So, undoubtedly, along with hardship there is ease. Undoubtedly, along with the hardship there is ease.”¹

Debate regarding the ontology of medicine that is the identity to which it should depend upon and also therefore the manner of practice it should adopt, is a longstanding and well-discussed topic in medical literature²⁻⁷. The value of these discussions cannot be overstated, however it ought to be recognised that the pluralism that has consequentially developed has left the physician with a ‘fractured’ and arguably ‘impoverished’ identity^{8,9}. Among the losses experienced by the physician, ‘reflection’ has been prominent. This piece aims to establish a working foundation with which to understand reflection for the Muslim physician, while outlining how the COVID-19 pandemic may allow for the individual to reflect more authentically.

In an increasingly reductive and instrumentalist field, the notion of reflection as well as the intention with which it is used has fallen victim to the capitalist sense of production that pervades many, if not all, aspects of healthcare¹⁰. In a field now governed by targets and

efficiency, reflective practice has become a means of assessment¹¹, foregoing virtues and aspects of true holistic development such as ‘healing’ or ‘courage’. In response to challenges and moral dilemmas, the physician therefore no longer sees reflection as an end in itself and a means to navigate the troubling but rather operates in a manner that sees them “pinball from one moment of crisis to another”¹², with little time for self-engagement.

Muslim healthcare workers, despite belonging to a tradition that promotes existential authenticity¹³, are no exception to this reality. In the light of the COVID-19 pandemic and the significant impact it has had on the physician, both as an individual but also as a doctor discussion regarding reflective practice is warranted.

Authentic Reflection for the Muslim Physician

What then is ‘authentic reflection’? And why should it matter to the physician or Muslim? Though it is difficult to establish a definition that encapsulates the scope of

this action, it may initially be considered an amalgamation of concepts such as Kant's "reflektierende Urteilskraft"¹⁴ or Aristotle's "phronesis"¹⁵, denoting an active and practical wisdom. Kant (an eighteenth century German philosopher and rationalist), in describing reflection, states "it is a peculiar talent which can be practised only, and cannot be taught"¹⁴ and this presents a suitable foundation for building a framework within which to understand reflection. It is of interest to also note that Aristotelian phronesis encompasses cognitive, reflective and affective aspects of decision-making, highlighting the integral role reflection has in wise behaviour¹⁶.

For the Muslim, there are further complementary aspects from within the Quran and hadith as well the work of philosophers, past and present, that may be of benefit in beginning to comprehend the value and necessity of reflection. When considering the "pseudo-reflection"¹⁷ begotten by modern medicine, a stoic approach may seem to be a direct solution. While this approach, orientated in actions of 'journaling' and 'rumination', is indeed of value¹⁸, it ought to be considered removed from authentic reflection, particularly for the Muslim. Further, the value of such a stoic approach is restricted and reduced by the formalisation of the reflective process, which affects the physician's willingness to engage fully with reflective practice as fears of repercussions and a perception regarding a lack of confidentiality prevent truthful reflection which is predicated upon vulnerability¹⁹.

Authentic reflection may only take place when self-reflection is grounded in the subjective experience, distinct from the objective narrative approach stoicism advocates for, formulating "emotional movement"¹⁸. The engagement of one's emotions and the allowance to feel sadness and other associated emotions was a practice that Muhammad (PBUH) himself did not shy away from. At the time of his son Ibrahim's passing, the Prophet (PBUH) responds to questions regarding his emotional state as follows:

*"Do you not hear, Allah does not punish for the shedding of tears or the grief of the heart but punishes or bestows mercy for the utterances of this (and he pointed to his tongue)"*²⁰

*"This is mercy." Then he wept more and said, "The eyes are shedding tears and the heart is grieved."*²¹

Thus, for the Muslim practitioner, it is evident that emotions are of value and worthy of attention, despite the

unwritten rulings and culture of both healthcare and the communities within which Muslim healthcare workers exist which may otherwise deny 'permission' to feel to the physician. Medical education must also hold responsibility for this reality, as it promotes positivist objectivity at the expense of 'soft skills' – the term itself connoting the lesser importance and apparent 'weakness' of such skills.

From these hadith, one may even argue that the necessity of engagement with emotions is of even greater value for the Muslim, as the Prophet (PBUH) suggests that working through the 'grief of the heart' is a necessity if one wishes to be able to behave in a holistic manner, at peace with themselves, and therefore find themselves a recipient of the mercy of their Lord. This is synonymous with the concept of 'self-awareness' that is proselytised in literature regarding medical professionalism²². Indeed, the mercy that is received may also account, in part, for the transformative and relieving properties included within the action of reflection.

Moreover, within Islamic philosophy, reflection is considered a deep-rooted and contemplative endeavour. It is clear from the work of Al-Ghazali that reflection is a predicate to truly meaningful and content existence²³. The Algazelian prescription of 'muhasabah', that is the active engagement of the self, provides the Muslim physician with a further tool with which to understand authentic reflection. Here, the individual both recognises turmoil and the associated emotions brought forth before journeying towards an acceptance of their struggle. In turn, this leads to a grounded reconciliation of an event and its associated troubles with one's beliefs, leading to solace, comfort and the potential to flourish. Thus, reflection, especially for the Muslim, may be considered a liberating, transformative and enlightening experience. An experience which allows the agent to feel 'whole', allowing for the development of resilience, perseverance and passion. This growth may even allow the physician to have a more sustainable commitment and become more highly achieving within their field^{24,25}.

COVID-19 and Reflection

Medicine and healthcare are tied to the politico-cultural and economic environment in which they operate²⁶. The interaction and impact of these factors, alongside many others, is complex and discussed in-depth in medical literature. For the individual, the COVID-19 pandemic has affected all aspects of society. Ethical, political and cultural concerns have dominated headlines, while

religious practice has also been greatly impacted as congregational prayers, pilgrimage (Hajj) and the month of Ramadhan have all required alterations, ranging from the withdrawal of prayers in the masjid to the cancellation of a once in a lifetime pilgrimage to Makkah for those outside of local borders.

As societal axioms and customs are challenged and the spiritual homes of the Muslim are closed to them, an accumulative plethora of ethical and existential crises have ensued²⁷⁻²⁹. In addition to this, the physician must also face the difficulty of working within a healthcare system that has its own dilemmas. The ideals to which they treat patients seem distant as challenges arise in the current climate, such as healthcare rationing³⁰ and the disproportionate impact of COVID-19 on BAME individuals³¹. These factors amount to a cumulative and additional existential taxation for the physician, particularly when considering their duty but also their identity as a human, as a Muslim and as a doctor. This “meaningless suffering”¹⁸ or *anguish*, as per Kierkegaard – a nineteenth century Christian philosopher considered the ‘father of existentialism’, seems overwhelming and paralysing in its description, even before the inclusion of wider concurrent global issues such as racial inequality, poverty and the climate crisis all of which have remained intensely discussed themes in everyday life.

*“That was a means of torture which Allah used to send upon whomsoever He wished, but He made it a source of mercy for the believers, for anyone who is residing in a town in which this disease is present, and remains there and does not leave that town, but has patience and hopes for Allah's reward, and knows that nothing will befall him except what Allah has written for him, then he will get such reward as that of a martyr.”*³²

The above hadith has been heavily advertised in Muslim circles and recounts the words of the Prophet (PBUH) when asked for guidance regarding a pandemic. While many have focused on drawing their attention to the pragmatic nature of the allusion to aspects of quarantining and lockdown, the engagement with the Prophet’s (PBUH) call for patience has been oft overlooked or underappreciated.

Sabr or صَبْرٌ (patience) is not merely the passive passage of time but an active endeavour, akin to persistence or perseverance. It is the nature of the Semitic languages for terms to hold layered and extensive meaning and this word holds within its semantic grasp aspects such as ‘resilience’³³, ‘toughness’³⁴ and ‘grit’¹⁹, all of which are regarded as invaluable characteristics formed under

immense stress and stimuli. Authentic reflection is the necessary predicator to such a consistent approach or even the integral first step of such an approach, holding within its action the virtues of ‘moral courage’ and ‘wisdom’, which both relate to Aristotle’s conceptualisation of ‘phronesis’ or ‘practical wisdom’¹⁷.

In amidst the overwhelming nature of the pandemic and unable to escape from its grasp, the Muslim physician is placed in a unique position as they become an “agent-experient”³⁵. In the face of increasing demands and stresses, the principles of ‘slow medicine’ somewhat paradoxically take hold, predisposing the individual to reflect authentically and conscientiously. The individual has little choice but to navigate through their feelings rather than dismiss or steer past them. In this process, the Muslim physician has the benefit of being able to look back at the examples of the Prophets and Sahabah themselves and aim to seek spiritual guidance from their Lord.

The accessibility of these role models provides the Muslim with a favourable opportunity with which to develop their reflective practice and orientate oneself within the active practice of wisdom³⁶. Moreover, a common theological concept in the Abrahamic tradition is that at man’s lowest point, when there seems to be no hope left, God may directly intervene and inspire man to raise him to a better standing than before. If this is to be believed, the Muslim can consider the opportunity afforded to them to begin a practice of authentic reflection the means by which to raise their station and character, allowing them find ease that verily comes following, if not during, hardship.

Conclusion

Self-care and self-actualisation may be considered an ethical obligation both within the Islamic faith and a healthcare setting. This pandemic has the potential to perpetuate the growth of this practice once more. Reflection, particularly for the Muslim physician, is a predicate to achieving such an outcome. In reference to social justice, Hamza Yusuf states that the Muslim is not responsible for the outcome of their efforts, rather they are accountable simply for the struggle itself³⁷. This statement holds true when considering the issues Muslim physicians may face in facets of their healthcare practice but also in daily life.

Within a secular framework, recent literature advocating for ‘slow medical education’ or ‘slow medicine’ indicates

there is an alternative method to the journey and education of becoming a doctor. Proponents argue that actions such as reflection, among others, allow for the doctor-in-training to develop a holistic approach to healthcare - an approach centred in human understanding and dignity that allows for the most appropriate existential pace as a physician³⁷. It follows that if the Muslim healthcare worker can more readily incorporate reflection into their spiritual daily practice, then the benefits that start within themselves could hold the key to a better standard of medical consultation and practice – one that recognises the humanity and suffering of both the doctor and the patient and allows for ‘healing’ to take hold once more.

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Al-Zahrawi (Albucasis) - A Father of Operative Plastic Surgery in Europe

Sharif Kaf Al-Ghazal MD, MCh, Plast Cert (RCS), DM, MA (Med Law & Ethics),
*Consultant and Plastic Surgery Lead, Plastic Surgery Department, Bradford Teaching Hospital,
Council & Founding member of the International Society for History of Islamic Medicine (ISHIM)
President of the British Islamic Medical Association (BIMA)
Director and Board member of the Foundation for Science, Technology & Civilisation (FSTC), UK*

Correspondence: skalghazal@hotmail.com

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Abstract

Medicine has a great many “fathers” of the profession; Hippocrates in Ancient Greece, Sushruta in Ancient India, Hua Tuo in Ancient China, Guy de Chauliac and Ambroise Paré in France, Scotsman John Hunter, American William Stewart Halsted, and many, many others in between. One of those “in-between” was Abu al-Qasim Al-Zahrawi, who is also known in the west as “Albucasis. Al-Zahrawi has a great contribution in many surgical fields, including plastic surgery. He described many procedures and invented good number of surgical instruments.

Introduction

Al-Zahrawi, the Muslim physician is considered one of the great fathers and pioneers of surgery in Europe. We will focus here on his contributions into plastic surgery in particular as he was an innovator in this field.

He was born in Al-Zahraa, a little village near Cordoba in the Andalusia region (modern day Spain) in 936 AD. There is very little that remains from that old city which became ruins (Figure 1). Al-Zahrawi lived most of his life in Cordoba. It is also where he studied, taught and practiced medicine and surgery until shortly before his death in about 1013 AD (1). A remarkable lifespan and one that is not out of place in today’s era.

There is no doubt that Al-Zahrawi was a remarkable man, one whose achievements were well ahead of his times. However, it is worth reading a little into the background and context in which he flourished and succeeded in. It has often been stated that the Muslim period of Spain’s history (Al-Andalus) was part of the Golden Age of Islamic civilisation (2). Harmony existed between Muslims, Jews and Christians as people from



Figure 1: The ruins of Al-Zahraa city (Madina Azahra) near Cordoba

different faiths lived in peace and tolerance (3); a situation almost unthinkable in various parts of Europe which suffered from rabid anti-Semitism and subjected Jews to vicious pogroms. Great advancements were made in different sciences (4). This reached the extent to which

kings of Europe would send their children to Al-Andalus to be educated.

Under the Caliphate of Córdoba, Al-Andalus was a beacon of learning, and the city of Cordoba, the largest in Europe, became one of the leading cultural and economic centres throughout Mediterranean region, Europe, and the Islamic world. Al-Andalus became a major educational centre for Europe and the lands around the Mediterranean Sea as well as a conduit for culture and science between the Islamic and Christian worlds. This brought a degree of civilization to Europe that matched the heights of the Roman Empire and the Italian Renaissance. Al-Andalus became one of the great Muslim civilizations; reaching its summit with the Umayyad caliphate of Cordoba the tenth century; the era in which Al-Zahrawi lived (3).

Al-Zahrawi lived and served the Umayyad Caliph Al-Hakam II and the military ruler Al-Mansur (5). He ended up serving as a doctor for over 50 years. Unlike many doctors and hospitals in today's era, Al-Zahrawi insisted on seeing patients regardless of their financial status (5). By seeing a wide variety of patients every day and recording his treatment of them, he left behind a very valuable text of medical knowledge that he called Al-Tasrif. Its full name *At-Tasrif liman 'Ajiza 'an at-Ta'lif* (The Method of Medicine – for who cannot write a book) is a medical encyclopaedia consisting of 30 volumes compiled from medical data that Al-Zahrawi accumulated in a medical career that spanned five decades of teaching and medical practice. He apparently travelled very little but had wide experience in treating accident victims and war casualties. It was considered the first Text Book of Medicine with many illustrations (this was the standard text in European medical schools in the 12th century). It is remarkable that Al-Zahrawi wrote the book for his students and for those that would come after him – it wasn't a guide for the ruler, and he never expected financial benefits from it.

Al Tasrif's Last volume, number 30 (which consisted of over 188 chapters) was about surgery. It included over 200 illustrations of surgical instruments, most of which were invented by Al-Zahrawi himself, and explanations of their use. He was the first medical author to provide illustrations of instruments used in surgery; this act alone revolutionised the way in which surgery was taught. Al-Zahrawi was at odds to point out any good practitioner in surgery would have a strong understanding of anatomy which at the time was a controversial topic Islamically though a famous Muslim physician once said "*He who is*

engaged in the science of anatomy, increases his belief in God" (6).

On wound management

Al-Zahrawi promoted the use of antiseptics in wounds. In (chapter 26) he explained the differences between primary and secondary wound closure and also the importance of wound Debridement before closure. He described four techniques to close the abdominal wall; two of which were quoted from Galen. The ones which he described in great detail were the Ant's head technique and the Cat's gut technique using absorbable suture taken from the cat's intestines.

On Haemostatsis

This involves stopping the vessels from bleeding, and was done by compressing the artery, by cauterization or by ligation (using silk known as Harir in Arabic or using Cat Gut made from Cat intestines) (7). This was long before the French Surgeon Ambroise Parr in 1552 spoke of it. Al-Zahrawi also used both Ligation or Cauterization of the temporal artery for the Treatment of Migraines and severe chronic headaches too (8).

On Hand Surgery

Al-Zahrawi described congenital hand deformities such as polydactyly and syndactyly. He reported the various presentations of polydactyly and the origin and composition (bone, flesh) of the extra finger. He also described the treatment for the various presentations of this anomaly: "*A superfluous finger, sometimes is all flesh, sometimes contains a bone, sometimes has a nail. That which is purely flesh is easily removed; you cut it off at the root with a broad scalpel. But the treatment of that which arises at the root of a finger is difficult; you should avoid amputating. In the case of one growing from the finger at a phalangeal joint, you should first cut through the flesh down to the bone with a circular incision; then saw the bone through, with one of the saws that suit the purpose; then dress it until it heals*" (9).

He identified syndactyly as a condition resulting from either a congenital disorder or a healing wound. He went to describe its treatment as: "*You have to cut the web away until the fingers are brought back to their original form; then interpose between them a pad or piece of material soaked in oil of roses to prevent them from rapidly joining together and to keep them apart*" (9,10).

In the last section of his volume "On Surgery," Al-Zahrawi described symptoms of fractures and

dislocations of different bony parts along with treatment and complications. (9,11).

On dislocation of the wrist, he mentioned the following technique of reduction: *“The carpus of the hand if often dislocated. The way of reducing the dislocation is to place the patient's wrist upon a board while an assistant stretches the hand and the doctor applies pressure on it until it goes back”*. To reduce the fingers' dislocation, he recommended *“When one of the fingers is dislocated dorsally or ventrally, then extend the finger and thrust the dislocation with your thumb until it goes back”* (9).

He described the decreased grip strength as one of the symptoms of severed tendons, for which successful treatment was unfounded at the time: *“If the hand is slackened so that he is not able to grip anything; then you may know that the tendons are either severed or bruised. In this situation there is no method but to strengthen it by cauterization; this sometimes helps but sometimes is of no use at all”* (9).

On Hypospadias and Genital Reconstruction

The work of Al-Zahrawi had significant impact in this field. He elucidated the treatment of imperforate urinary meatus, which involved creating a small opening in the meatal region of the glans penis (9): *“You should be quick and make a perforation with a fine scalpel, then put in the opening a lender leaden sound, tie it and keep it in for three or four days”*. This was similar to Galen's suggestion of using a lead tube to keep the new urethra open. However, Al-Zahrawi used a solid fine probe instead. Hypospadias management involved making a new orifice in the middle of the glans penis and was narrated as: *“In those cases having a misplaced meatus, draw out his glans firmly and cut the end of the glans at the place of the meatus with a broad knife or sharp scalpel as if sharpening a pen, so that the middle of it protrudes like a glans penis and the opening falls in the middle as it should. And be aware of hemorrhage, which often happens; meet it with styptics and dress the wound until it heals”* (9,10) (Figure 2).



Figure 2: The knife Al-Zahrawi invented for the Hypospadias (Ref.18)

In contrast to the currently recommended surgical approach for management of penile fractures, Al-Zahrawi recommended conservative treatment by stabilizing the

penis with a goose's neck (9,12): *“When man's organ is fractured, take a goose's larynx (tube) and introduce the penis into it; then let it be wrapped and bandaged and left for about three days until it is healed”*.

Al-Zahrawi also described the diagnosis and treatment of both a Hypospadias and an Imperforate anus. Circumcision was another surgical procedure that was mentioned by Al-Zahrawi and its description was apt as it was not practiced by non-Muslims before. He wrote also about surgical techniques for circumcision, the instruments used (Figure 3) and how it was not advisable to use sedation as well as briefly describing complications.

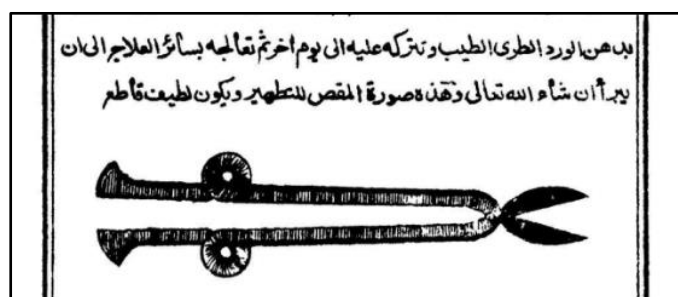


Figure 3: The scissors Al-Zahrawi used for circumcision

On Oculoplastic and eyelid surgery

Al-Zahrawi was the first to introduce an eye speculum with 3 hooks and fine scissors to remove superfluous skin (Figure 4). He wrote about eyelid surgery and described the ectropion of both the upper and lower eyelids. In (chapter 11) of volume 30 of his book he noted various principles in that surgical field (1). He used ink to mark the incisions pre-operatively which became now as a routine standard procedure. Also he used the inverted V-shaped incision to treat the lower eyelid ectropion (9) (Figure 5).

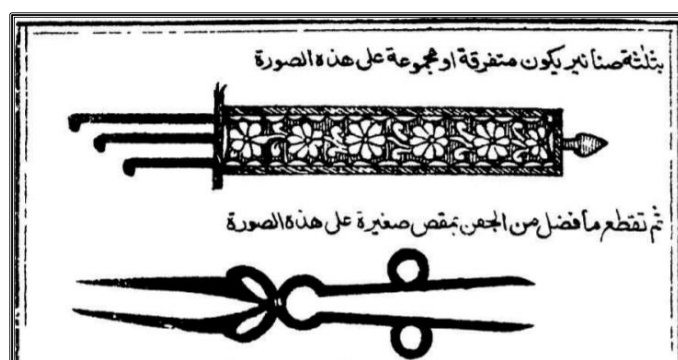


Figure 4: The hooks and scissors Al-Zahrawi used in eyelid surgery

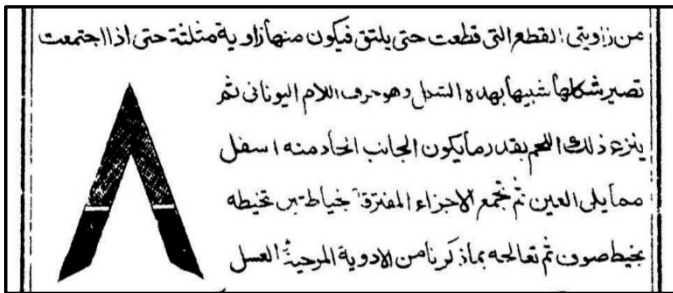


Figure 5: The incision Al-Zahrawi used for lower eyelid ectropion

On Gynecomastia and breast surgery

He explored this in Chapter 47 of his book *Al-Tasrif* and he described the surgical options to treat Gynecomastia and recommended the removal of the glandular tissue by a C-shaped incision for large breasts with excess skin and said “make two incisions so that the edges join each other, then remove the skin and glandular tissue in between and suture the edges of the defect”. Remarkably, this technique is still used for such Gynecomastia 1,000 years later (1).

On skin lesions and cancer conditions

Al-Zahrawi described the surgical option as the excision of benign warty skin lesions and dealing with planter warts. His work was unique and ahead of its time too. He recommended their wide excision and used breast cancer and thigh cancer as examples. He stated that if the tumour is large and at an advanced stage it would indicate that surgery is not a suitable option and once said “I could not cure any patient with advanced cancer” which underlined his wisdom and judgement that an “operate at all costs” mentality is not the right approach (13) and you should only try to perform surgery on operable cancers.

On Maxillofacial Surgery including congenital abnormalities

Al-Zahrawi described cleft lip as a fissure in the lip, more commonly identified in boys. For the treatment of cleft lip, he suggested cauterization (*kai*), which would heal with fibrosis and scarring and close the defect: *heat a small edged cautery, then quickly place it on the fissure till the burning has reached the depth of the lip. Then treat with wax plaster till healed*” (9).

He also discussed the management of some facial fracture, including nasal and mandibular fractures. He acknowledged the bony and cartilaginous parts of the

nose and suggested the following for the management of nasal fractures: “If one of the two upper parts is broken you should pass your little finger into the nostril and straighten out the fracture from inside, with your index and thumb of the other hand is outside. If the fracture is in the upper part of the nose and your finger does not reach, it should be evened by means of a probe with some thickness to it.

You may pack the nose with fatty dressing and then apply externally a plaster of white flour and frank incense made in to a paste with egg-white; then put on top some soft towel, but do not bind up the nose at all” (9).

He placed emphasis on comminuted nasal fractures and internal wounds: “If the nasal bones are broken into small pieces or crushed, you should cut down upon them, remove them with a suitable instrument, and then suture the wound”. He continued “If there is an internal wound of the nose, you should dress it with pads and employ leaden tubes until it heals”.

The management of mandibular fractures was also described in his book (chapter 4/section 3) as: “If it is merely an external fracture, not broken in two but sunken in wards, you should from within, push the concavity of the fracture gently outwards.” He continued “If the break in the jaw is total, into two pieces, traction must be implored in a straight line on both sides, until it can be set, and if the alignment of the teeth is disturbed, you should tighten the teeth with golden or silver wires” (9).

His principles of wound management involved primary suturing for fresh wounds and debriding healed margins prior to attempting surgical closure: “If the wound is fresh and bleeding, bring the edges of the wound together with a suture, and dress it till it is healed. If the discontinuity has separated the edges, and both edges have healed, it is necessary to scrape both edges on the external skin till they bleed; then bring the edges together with a suture, and put over the powder a plaster of palm ointment, and leave it bandaged for two or three days” (9).

Interestingly, Al-Zahrawi also wrote about Dental Surgery too; the distinction between the fields of dentistry and medicine were not as well pronounced at the time as they clearly are today. His writings included topics such as the wiring of loose teeth, the roots of broken teeth extraction, dental arches, dental instruments of the day and the correction of irregularities of non-aligned or deformed teeth (14). Furthermore, he also wrote about the replacement of loose teeth (implants) using part of the bone of the cow to replace a missing

tooth (to create a crown or bridge) . Al-Zahrawi also described the way to abrade and shave the prominent teeth in order to improve its appearance. He described in great detail many instruments he used in the field of dental and maxillofacial surgery (Figure 6,7).

All the instruments Al-Zahrawi used and described in his book (Al-Tasrif) have been replicated a few times by different museums, universities and people interested in Al-Zahrawi and his legacy (Figure 8).

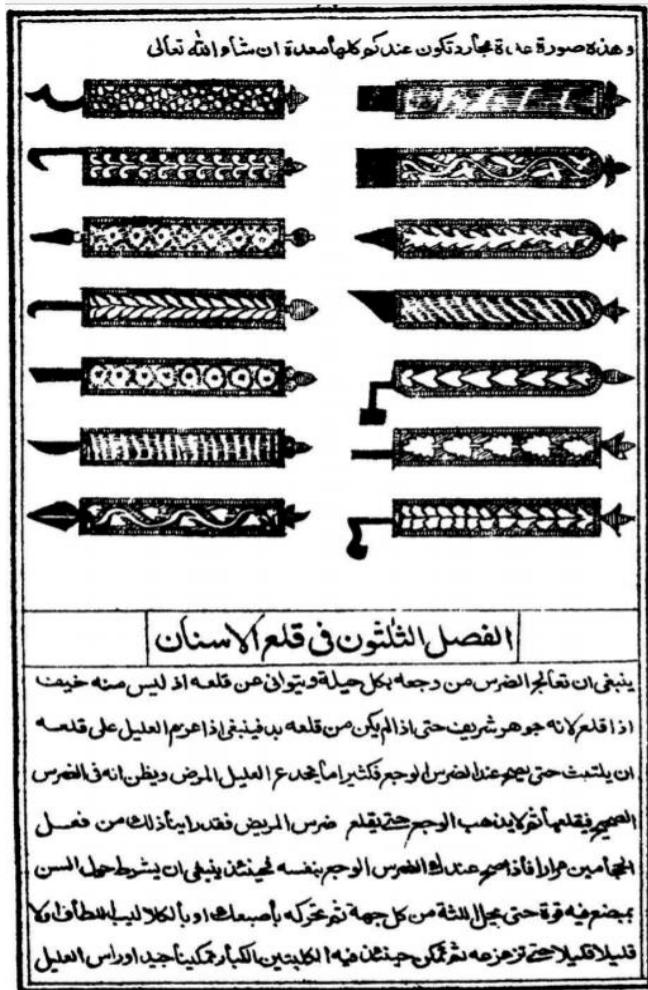


Figure 6: A page from Al-Tasrif showing the dental instruments (Ref. 18)



Figure 8: Replicate of Al-Zahrawi surgical instruments. Sidi Mohamed University Fes (Morocco)

On observation of malpractice and ethics

It is important to touch on another field in which Al-Zahrawi excelled; the observation of malpractice and ethics. His observations were profound. Someone removed a tumour from the neck of a female patient which led to bleeding and her subsequent death. Another observation was the splintage of a leg with too tight plaster which led to compartment syndrome and then gangrene. The removal of a large bladder stone from a very elderly patient which led to complications due to his fragile state and subsequent death. The removal of advanced breast cancer which lead to bleeding and death bringing more harm than benefit. It was about knowing when not to operate as opposed to operating because “it is what was expected” and knowing the difference could prevent malpractice. Malpractice was not a concept understood at the time but the writings of Al-Zahrawi helped create a rudimentary understanding of best practice that went past the Hippocratic Oath. Al-Zahrawi would tell his students and other junior doctors “Keep away from anything which may negatively affect your reputation in this life and the hereafter, for it is better for you and increases your ranks and pleases your lord”. He also wrote about the importance of positive doctor-patient relationships, referred to his medical students as his own children, and emphasized the importance of treating patients irrespective of social status. (9, 15).



Figure 7: Instrument to remove broken teeth

Conclusion

Al-Zahrawi's book *Al-Tasrif* was translated into Latin by Gerard of Cremona in 1187 and remained the main reference for surgery in the universities of Italy and France for centuries. The French Surgeon Guy de Chauliac in his book *Great Surgery* completed in 1363 quoted *Al-Tasrif* over 200 times. Pietro Argallata in a 1531 Latin translation of *Al-Tasrif* said "*Without doubt, Albucasis (Al-Zahrawi) is the chief of all surgeons*" (16). Al-Zahrawi was clearly a surgeon well ahead of his time. Although I tried to focus mainly on the field of plastic surgery, his surgical achievements go beyond plastic surgery (17) and include general surgery, orthopaedic surgery, vascular surgery, urology, neurosurgery, ophthalmology, as well as obstetrics. These are all well documented and may need to be expanded on in a future article. His descriptions of the almost 200 surgical instruments (18) which fit their respective purpose was significant. Al-Zahrawi's findings and practices influenced healthcare practitioners in Europe for centuries to come and his impact is still felt in today's world (19).

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The First Step Towards Reducing Oral Health Inequalities In Ethnic Minorities

Pushpa Momin BDS, MFDS (RCS Ed)¹, Sophina Mahmood BDS, MFDS (RCS Ed)²

¹Dental Core Trainee at the University of Manchester Dental Hospital

²Maxillofacial Dept. Bradford Royal Infirmary

Correspondence: p.momin@hotmail.co.uk

Keywords: Dental care, Oral health, Prevention, Public health, Tower hamlets, Barriers to care

Abstract

Tower Hamlets has the largest Bangladeshi population in the UK, making up nearly 32% of the borough. Within the area, there are significant language and cultural barriers that hinder the effective delivery of preventative oral health care. A project comprising of visits to local day centres in the borough was devised to explore these barriers, as well as attitudes to oral health care and the chewing of betel-nut (a known carcinogen and risk to oral cancer).

The project identified many challenges that community members are facing, including social isolation, barriers in accessing dental care and deeply rooted cultural beliefs. The impact through a single project is limited, and as discussed in this article, a more extensive multidisciplinary approach is required. Building upon this work, there is scope for raising awareness of the importance of oral health care as well as providing basic support to those in communities who are otherwise not accessing any dental prevention.

Introduction

Tower Hamlets has the largest Bangladeshi population in the UK, making up 32% of the borough, alongside other ethnic minorities. 38% of residents are Muslim, which is the highest proportion in the UK (1). A total of 84 languages are spoken in Tower Hamlets, with the major languages being English, Sylheti and Bengali (1). As such, there are significant language and cultural barriers that hinder the effective delivery of preventative oral health advice.

A project comprising of visits to local day centres and mosques in the borough was devised to explore these barriers, as well as attitudes toward oral health care. One of the common practices in the Bangladeshi culture is the chewing of areca -nut and paan; both are known carcinogens, linked to oral cancer. Oral cancer is an umbrella term covering cancer that can develop on the tongue, inside of the cheeks, palate, lips or gums; it may

also extend to the oropharynx or salivary glands. The treatment for oral cancer is often life-changing and carries a high morbidity. 5 year survival for oral cancer is dependent upon the specific cancer site, however the average is 60-65% (2).

Areca nut (also known as betel quid) is a seed of Areca catechu, a type of palm tree. It is commonly chewed after being ground up or sliced, and wrapped in leaves of the Piper betel vine (commonly called 'Paan'), often coated in lime. Tobacco and spices may be added to this (3). Areca nut is classified as a carcinogen by the World Health Organisation. Areca nut is not considered safe for chewing or eating by the Food and Drug Administration, and has been placed on the Poisonous Plants Database (4). Areca nut is implication in oral submucous fibrosis, and if used alongside tobacco can cause leukoplakia - both which are potentially malignant (5). The packaging of these products does not contain any information about the carcinogenic effects and the risk of oral cancer, by

contrast with warning labels on tobacco products in line with the Tobacco Products Directive (from the WHO Framework Convention on Tobacco Control) (6). These products are also not subject to any other form of regulation in the UK (7). Areca nut is chewed for several reasons, these include: providing an energy boost, beliefs that it relieves ailments such as dry mouth, and a tradition of chewing it after meals.

Aims

1. Explore attitudes towards oral health and betel-nut/pan chewing.
2. Identify challenges and barriers in accessing dental care.
3. To gain an insight into the impact of oral health problems on service users within the day centres.

Methods:

A total of four workshops were undertaken in two day centres during April-August 2018, with volunteers comprised of dentists and dental students.

The first day care centre had majority Bangladeshi users, with over 90% of users speaking Bengali as their only language. Two of our volunteers were able to speak Bengali and assisted in translating. The centre has daily activities such as exercise, socialising and prayers. There are separate male and female lounges to be sensitive to religious and cultural norms. The centre reports to have approximately 40 users daily. Service users are picked up in the morning by transport and brought to the centre from four surrounding areas: Wapping, Shoreditch, Whitechapel and Shadwell.

The second centre is open to the elderly in the Somali community. The centre is used by males Monday to Thursday (up to 40 males per day), and for females on Friday (up to 20 females). A member of staff from the centre assisted in translating.

The workshops were run in an informal fashion; we begun with individual discussions, including exploring the patients background, access to dental care and any dental concerns. In the Bangladeshi community, further discussions involved gaining an insight towards their attitude towards paan and betel-nut chewing. Brushing demonstrations were given using a large toothbrush and model, both individually and as a group. A list of local NHS practices were given to those who were not registered.

Results:

When the harmful effects of paan and betel nut were discussed with the day care users, many were unable to consider or accept the health risks. Further discussion allowed the authors to gain an insight into why this may be the case. Many patients felt that the paan was improving their oral health and helped to keep their teeth clean and strong. One of the recurring themes whilst discussing the harmful effects of paan, is users reported that themselves and others in the community have been using paan for decades, yet they have not seen any negative effects such as oral cancer.

Others barriers included users relying on carers or children to arrange dental visits for them, and concerns that their children may be unable to take them. In most cases users were not able to communicate with the local dentist and were not sure where to seek oral health advice.

Whilst demonstrating the modified bass technique on the model, many users expressed a lack of interest as they rely on their carers to brush their teeth. In one of the centres, 80% of the male users relied upon their carers for brushing their teeth. A basic lack of understanding of the importance of dental care was evident through discussions. In one of the centres, 20% of the male users brushed without toothpaste. Dental concerns which users expressed included pain, wobbly teeth and having gaps; in all cases, these patients were not under the care of a dental practitioner.

Discussion

A study carried out in 1997 found that majority of Bangladeshi people in this area are exposed to carcinogens in betel nut, but are unaware of the risk (8). During our discussions, when users were made aware of the risk of betel nut, they were unable to accept this. Various reasons were presented by users as an opposition to the risk, which are mainly derived from anecdotal experiences. This could be overcome by inviting patients who have experienced oral cancer secondary to paan-chewing to share their experience first-hand; this could be carried out via workshops in community hubs or day care centres. The discussions with users taught the authors the deeply ingrained culture within Bangladeshi elderly communities with regard to paan and betel nut chewing.

We have acknowledged that our interventions at this stage will have limited impact; a multi-disciplinary approach is required to make a holistic and long term improvement in the community. Many of the service

users mentioned their medical complications and that they have regular contact with healthcare professionals through hospital and GP appointments. Medical professionals could aid in signposting patients and their family members to where to access dental care, and the importance of doing so.

As healthcare professionals we have very little contact with members of the community who do not present to our services, and in such cases we have not yet built the rapport that is necessary to influence deeply rooted cultural norms and beliefs which are harmful to health. Whilst we strive to develop this, we can utilise members of the community who are in a position of influence and have regular interaction, such as staff members at day care centres. By developing a working relationship with day care centres, we are able to work alongside those who have a greater understanding of the users individual circumstances and daily challenges. This would be invaluable in allowing us to gain a greater insight and in developing effective interventions.

A list of local NHS practices were given to users who were not registered, however there are users who are not registered due to their difficulty in finding a family member to take them to the dentist. Many of the users rely on their carers and family members for their oral health, from their daily oral hygiene regime, to arranging dental appointments. Therefore it is vital to ensure oral health care is incorporated into training which carers receive. This should be monitored at the initial stages to ensure that there is adequate oral care and access to dental services, including an interpreter being arranged for dental visits.

This project opened our eyes to the challenges that members of our community are facing, such as social isolation in the elderly community, barriers in accessing dental care and deeply rooted cultural beliefs. Although the impact through a single project is limited, and as discussed, a multidisciplinary approach is required, through this project there is scope for raising awareness of the importance of oral health care, and providing basic support to those in communities who are otherwise not accessing any dental prevention.

Conclusion:

This project has revealed the stark reality in our community; from misconceptions about oral health, to difficulties in accessing care. We encourage further initiatives to take place in communities with similar demographics, to obtain further research on the barriers

to oral health, and interventions on how these can be overcome. Involvement of our colleagues in the medical profession would provide an insight into whether these barriers extend to general medical health and access to healthcare. Dental and medical students are encouraged to take part in such initiatives, to improve their communication skills and provide them with an insight into challenges faced within the local community.

A multidisciplinary approach needs to be taken in order to provide holistic care to members of our community who are experiencing multiple barriers in accessing dental care. We are just at the tip of the iceberg; further exploration of barriers to oral health is necessary, through a root cause analysis and interventions developed accordingly. By doing so, we can aim to reduce health inequalities which are due to language and culture.

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Health, Prayer and Spirituality: A Review of the Muslim Contribution

John F. Mayberry DSc MD LLM FRCP,
Professor of Gastroenterology, University of Leicester
Research Fellow, Muslim College, Cambridge

Correspondence: johnfmayberry@yahoo.co.uk

Keywords: Clinical trials, Prayer, Religion, Effectiveness

Abstract

The use of porcine derived mesh for the repair of abdominal wall hernia is increasing in surgical practice in recent years. Dietary consumption of porcine containing products is prohibited in Islam and Muslim patients would not accept it in usual circumstances. However, the majority of Muslims would only use forbidden material in life saving conditions. The Islamic jurists allow it in dire need and in the absence of any other suitable alternative. This study employs a review of the literature about the use of porcine derived mesh for the repair of incisional hernia and also comprising historical evidences from Qur'an, traditions of Islamic Prophet Muhammad and views according to Islamic Jurisprudence. The findings explicate the religious and legal basis of using porcine mesh for the use of repair of abdominal wall hernia in Muslim patients. This study will provide guidance on the understanding of its use to obtain a formal informed consent.

Introduction

This paper reviews the origins of prayer studies and considers the differences between those concerned with demonstrating the general efficacy of prayer on disease outcomes and those investigating its supportive effects for patients. The limitations in the design of randomised controlled prayer studies are considered, especially the difficulty of creating adequate control groups. Studies on the role of prayer as a supportive therapy in heart disease, renal disease and oncology are reviewed. The potential benefit of prayer early in life, leading to a reduction in impaired cognition when older, is considered. In summary, the need for a more open approach to the role of prayer in clinical settings is suggested.

In 1872 Henry Thompson, a surgeon, laid down a challenge in *"The Prayer for the Sick: Hints towards a Serious Attempt to Estimate its Value"*.^[54] He suggested that over a 3 year period the morbidity and mortality on two comparable wards should be compared, with one being the subject of "special prayer by the whole body of

the faithful." This led to the Prayer Gauge debates of the 19th Century and formed the basis for later such studies across a range of medical fields. This framing of the debate around the question of whether God/Allah/Y_HW_H listens to men and women rather than to an assessment of potential benefits of prayer has largely continued to the present. However, in 2004 Puchalski wrote that:

"Physicians and other clinicians who diagnose and develop treatment plans should address spirituality with patients because it can affect how a person understands their illness, how they make treatment decisions, and how they cope with suffering, illness, disability and/or stress."^[41]

Although much of the research concerned with spirituality and prayer has had a Christian basis,^[47] during recent years an emerging Islamic literature has developed. Most originates from Iran, but other communities are also involved.^[26] The purpose of this review is to draw together these publications, compare

the findings with literature from other faiths and consider how this form of research might be best developed and to maximise its impact on the day-to-day care of patients.

There is considerable spiritual literature on aspects of prayer seldom dealt with in scientific publications. This includes the intensity with which the prayer is made and its impact on electroencephalographic activity, blood pressure and heart rate. How any potential role of prayer induced changes in physiology in promoting health and alleviating illness is yet to be defined. A significant question would be whether petitionary prayer could alter mortality. However, there is a consistent belief within Islam, Christianity and Judaism that the time of a person's death is fixed and so within these faiths researchers would be limited to assessing other benefits such as less complications and shorter hospital stays. On an individual basis there is growing evidence patients with chronic disease who have positive beliefs can deal with the psychological impact of their disease better, as suggested by a qualitative study of 35 patients at Tabriz, Iran. However, with time and lack of clinical improvement these beliefs weakened. Those who felt that Allah paid no attention to their prayers were more depressed, lonely and anxious and were less likely to follow their prescribed therapeutic regimes.[2]

The gold standard for assessment of the efficacy of medical interventions is the randomised controlled clinical trial (RCT), which was developed out of the initial work by Cochrane.[8] This approach minimises the effects of observer bias and false-positive as well as false-negative results. It puts interventions to an objective test and should remove elements of subjectivity which can mislead researchers. However, it raises a major question concerning distant prayer research. It introduces the concept that Godly intervention can be subject to human testing, an issue of deep concern to many believers. Apart from the overall issue of subjecting prayer to clinical trials, there is also the impact of such studies on those who pray. It requires a belief on their part that testing prayer is appropriate, which means that those involved in such research are unlikely to be a representative cross section. The difficulty associated with recruitment of Christians to prayer trials is well illustrated by Lesniak's work on healing of wounds in bush babies, where a number of those approached felt prayer for healing of animals was inappropriate.[28] A further example of the theological problems connected with prayer research is the study by Sicher et al at the California Medical Centre. [51] They recruited a bank of prayers from a range of spiritual backgrounds including Christians, Jews, Buddhists and Native Americans. There

were no Muslims in the study. Its purpose was to investigate whether the beneficial outcome of prayer was affected by the spiritual background of the prayer. Although the results were interpreted to suggest this was not a factor, there was a failure to take account of the fact that all of the patients were prayed for at various times by all of the religious groups represented in the study and this does not mean that all were equally effective.

In conventional medical studies control subjects either receive a placebo or the best available alternative treatment. If the control receives placebo, the trial can demonstrate that the active intervention works. Where the control receives the best alternative treatment, the trial can demonstrate that the new intervention may be better. In many trials of prayer the control is a placebo. This assumes that controls do not pray on their own behalf, and family members are not praying for them. It also assumes that distant prayers strictly obey the rules and do not feel tempted to pray for all people involved in the study. As Jantos has written:

“Praying only for individuals unknown to the intercessor and specifying the number and duration of prayers that can be offered each day has no religious rationale and only a tenuous relationship with traditional prayer practice.”[25]

If we were to follow the RCT model to its extreme one could imagine devising a protocol which compared different types of prayer or which compared the effectiveness of Muslim and Christian prayer. It is extremely unlikely that such methodologies would be acceptable to the faith community.

In contrast to studies from the West, most work from Muslim centres has been concerned either with the physiological and clinical impact of personal prayer or with the benefit of listening to recitations from the Qur'an. There have been no studies comparable to the distant intercessory petitionary prayers referred to by Jantos.[25]

Impact of Prayer:

If prayer changes outcomes, then there is every reason to support its continued use in religious communities and to encourage its greater use in secular societies. For some time there has been a keenness to limit the role of religious practices within many healthcare systems, especially in the West. Such attitudes should be challenged if there is an adequate evidence base. Interestingly Archie Cochrane saw clinicians who failed

to take account of evidence as “villains” if they “succeed in ignoring the results if they do not fit in with their own preconceived ideas”.[10]

Clinical relevance:

Puchalski and others have encouraged clinicians to consider the spiritual needs of patients. In the USA this led to the emergence of Departments of Spirituality and Health within a number of medical schools.[41,42] The difficulties many clinicians experience in dealing with this aspect of their patients’ lives is emphasised by their need to use a validated tool, such as FICA,[427] to articulate questions about whether a patient is a practicing believer and member of a faith community. Studies from Pakistan and Iran show a more ready recognition of the links between spiritual and physical health. In a study of 605 patients across all specialties from Islamabad 93% wanted their physicians to pray for their health out-loud in front of them and 88% believed having a God-fearing doctor would have a positive impact on their health [1]. Similarly in Karachi 96% of patients believed prayer had healing properties and 90% claimed to have experienced healing through prayers [43]. In Punjab a study of 800 patients found that almost all used prayer as an adjuvant to conventional medical treatment. [5] The consequences of such beliefs is of particular importance when considering controlled studies amongst Muslims as it is likely that any control group will be praying for themselves, as may be others.

In 2008, 131 physicians in Teheran completed a structured self-administered questionnaire about their attitudes to prayer in the clinical setting. 95% admitted that they had prayed for patients, with 31% saying patients “often” requested prayer of them. More than 90% of these clinicians had been asked at some time by patients to pray for them. Interestingly only 7% of these physicians believed prayer could influence the outcome of treatment, and less than 3% had received any training on prayer for the sick.[48] An improved relationship of trust between patient and clinician has been reported in the West when doctors and patients have discussed spirituality together.[30] In contrast a study amongst Muslims in the UK has shown that a failure to acknowledge and discuss the influence of religion on long-term illness leads to a vacuum in professional knowledge, inadequate support for patients’ decision-making and poor responses to requests for assistance.[33] Such situations can also be seen in Muslim countries. In a Saudi study of 225 physicians, 91% believed religion had a positive influence on health but more than half never questioned patients about religion.[3] At times this was

because they believed that it would lead to refusal of appropriate medical treatment, although there seemed to be a lack of awareness of issues of congruence. So should clinicians pray with patients when requested to do so? Dagi has suggested open prayer should only happen if specifically requested, but preferably to facilitate prayer being led by an identified religious leader so avoiding even the appearance of religious coercion.[9] This may overcome some of the difficulties caused by those who believe that any form of prayer with a patient is an unacceptable crossing of professional boundaries. However, such constraints will be a challenge for devout clinicians, with 13% of a small sample of 40 such physicians in the USA admitting to openly praying with their patients.[39] In countries such as Iran, traditional physicians (or Hakims) who practice Unani-Tibb are ready to pray with patients with conditions such as thalassaemia major and practice “healing touch”. In an open before and after study of 7 patients intercessory prayer resulted in an increase in haemoglobin and transfusion intervals, decreasing ferritin levels and improved performance at school.[23,24] In a similar study amongst 12 patients with multiple sclerosis there was evidence of improved physical health and energy levels as recorded on serial questionnaires.[22] These small scale underpowered studies were unfunded and limited in size because clinicians were unpaid volunteers, although one would have hoped that financial incentive did not play a part.

Prayer studies need appropriate funding and professional design so as to ensure that they are adequately powered, have appropriate controls and use validated outcome measures.

Prayer and its Physiological Impact:

Yucel is a Hospital Chaplain who investigated the effects of reading or listening to Arabic religious selections compared to non-religious pieces at Brigham and Women’s Hospital in the USA amongst 60 Muslim patients.[55] Patients were exposed to two texts daily for a period of 2 to 5 days. Those exposed to the religious selections showed a significant fall in blood pressure, heart rate and body temperature. They also reported that they felt less stress and depression, comforted and more hopeful. However, the survey tools used to measure these feelings had not been externally validated.

In an Egyptian study of the benefits of meditation on post-operative pain, 20 patients were assisted by researchers in reading and repeatedly reciting short religious phrases or prayers (zikr) and jaw relaxation

techniques. A control group received no intervention. The intervention group became less anxious, although the benefits on pain control were less obvious.[52] The study can be criticised on a number of goals, particularly the absence of a comparable but non-religious education program for the control group. However, it is consistent with many other studies from different backgrounds that relaxation and meditation techniques can have a profound influence. Similar criticisms could be directed at a study on the role of Muslim prayer movements as an alternative therapy for erectile dysfunction.[25]

Malaya Doufesh et al investigated the effect of 4 to 6 minutes of salat on the α relative power of electroencephalography (EEG) and autonomic nervous activity and the relationship between them by using spectral analysis of EEG and heart rate variability in 30 healthy volunteers.[11,12] They found an increase in parasympathetic activity and a decrease in sympathetic function. These findings suggested that the high levels of α activity during salat are associated with increased relaxation and reduced tension. The effect of Dua prayer for 5 to 9 minutes was also investigated in 9 volunteers in a separate study.[4] There was higher alpha amplitude during the prostration phase of the Dua prayer which was similar to other studies documenting increased alpha amplitude in the parietal and occipital regions during meditation and mental concentration.[37]

Prayer and specific diseases:

The impact of prayer has been examined in patients with coronary artery disease, cancer and HIV. It has also been assessed in conditions ranging from warts through to life-threatening organ failure, including chronic obstructive pulmonary disease.

Cardiology:

The sentinel study which brought the role of distant intercessory prayer in alleviating illness to international attention was that of Byrd in California.[7] In his randomised double-blind study of 393 patients admitted to a coronary care unit, those who were the subject of distant intercessory prayer required less ventilatory assistance, fewer antibiotics and less diuretics than the control subjects. There was no evidence of a difference in mortality. Studies from Iran have suggested that listening to recitation of the Qu'ran can reduce anxiety prior to angiography,[29] anaesthesia [6] and heart surgery.[14, 53] There is evidence that this effect can be enhanced by ensuring that the listeners understand what is being said through appropriate translation, in this case

into Persian.[49] Similarly in a study on the intensive care unit of Baqiatallah Hospital, Teheran patients with cardiac failure or chronic pulmonary obstructive disease who listened to a recording of one of the Prophet's prayers over a three day period developed lower scores on the SOFA (Sequential Organ Failure Assessment) scale compared to a control group who received no intervention.[27] However, again this study is limited by those difficulties associated with Nasiri's work, who reported on the benefit on pain of repeatedly saying the name of "Allah" during the recitation of Hazrate Zahra's praises daily over 3 days [35,36]. The intervention group received training on correct pronunciation of the prayer, whereas the control group received nothing. This is a serious limitation and the control group should have been trained to use a non-religious recitation. The authors went as far as to suggest that reciting the word "Allah" could be a non-pharmacological, safe, low cost intervention for effective pain relief ! A major issue with this type of study is the likelihood of patients in the control group or their family praying. In addition more than 90% of physicians in Iran pray for their patients and more than 90% of Muslim patients pray for themselves so it is unlikely that the control group were not prayed for.[48]

Renal Disease:

In a study of hemodialysis from Golestan, 245 patients were asked to complete Meraviglia prayer frequency [32] and Palutzian-Ellison spiritual health questionnaires.[18] A similar study was conducted amongst 85 patients at Imam Reza Hospital in Amol.[17] Both scales were developed in the USA in largely Christian settings and require validation in other countries and communities. Both Iranian studies demonstrated that prayer was practiced by more than 90% of patients. For those on haemodialysis 42% continuously demanded help of Allah.[18] In a later study of 88 patients, 44 listened to intercessory *Tavassol Prayer* played periodically for 10 weeks in the mornings for 20 minutes during dialysis. Measurements of the spiritual health of patients in the intervention group were significantly higher than in the control group, but there were no assessments of its impact on clinical parameters.[38] However, clinicians from all backgrounds need to be aware of these spiritual aspects of the life of many of their patients.

Cancer:

In a qualitative study of 11 cancer patients in Teheran, Rahnama et al demonstrated that Muslim patients: "use a number of religious beliefs as their spiritual sources:

"Believe in the possibility of gaining health from God", "believe in miracles", and "believe that God defines the length of one's life"[44].

In a study of 360 patients with cancer from Teheran, prayer and spiritual healing was the most commonly used method of complementary medicine. [48,49] Older patients, the widowed and divorced together with those who had received only a primary education prayed significantly more often and had more positive attitudes towards prayer than others. Work from Golestan has shown that someone's experience of prayer prior to onset of cancer had a positive effect on their view of its value subsequently.[15] In a small study from Iran of 12 patients readings from the Qu'ran and prayer improved patients feelings of spiritual well-being.[31] In Saudi Arabia religious involvement led to less depression and less suicidal ideation amongst patients with colorectal cancer.[50]

Dementia:

In a community based study of 935 Arabs living in the largely Muslim area of Wadi Ara in northern Israel the proportion of individuals praying at midlife was significantly higher among controls (87%) as compared to those with mild cognitive impairment (71%) and Alzheimer's disease (69%); $\chi^2 = 28.60$, $p < 0.0001$. [21] The proportion that prayed during midlife was 94% for men and 66% for women. Since only six percent of males did not pray, the contribution of praying as a dichotomous variable could be evaluated only in women. Among women, 74% of controls compared with 60% of those with mild cognitive impairment prayed during midlife. The number of praying hours for those who prayed did not significantly influence the risk. The observed association between prayer and decreased risk for mild cognitive impairment was independent of educational level, which may influence the choice or the capability to learn and recite prayer. No benefit was seen for prevention of Alzheimer's disease.

Coma:

Thirty three patients in coma were randomised to an intervention or control group. The intervention consisted of listening to the Azan at noon and evening prayer for 14 days through headphones. Level of consciousness was measured before and after each intervention. The intervention resulted in a significant improvement in consciousness.[34] However, the study provides no evidence that it was specifically the Azan which had this effect. In order to demonstrate such a benefit the control

group needed to be exposed to similar sounds, but without a religious basis.

Carpal Tunnel Syndrome and Warts:

An Iranian study of 12 patients in whom 23 hands had been diagnosed as having carpal tunnel syndrome with objective tests demonstrated a significant improvement in 48% of patients six weeks after a three week period of intercessory prayer. Again the study was limited by small numbers.[13]

However, in a study of 45 Turkish patients who were mainly Muslims the effects of intercessory prayer was compared with control groups who received no intervention. Although participants believed in the therapeutic effects of prayer, when they did not trust the intercessor, prayer had no effect on their warts and there was no difference in healing between the groups.[19] Such a study emphasises the potential problem with "laboratory-based" prayer.

Conclusions:

There is a distinct difference between prayer studies conducted in the West and those largely emanating from Iran. In the West there has been a drive to demonstrate that prayer has a clinical effect comparable to drugs and so to act as a proof of a "higher being" or of some extra-corporeal force influencing health. In Iran the discourse has been about the benefits of prayer as a psychological support and the need for clinicians to be open to these effects and even to actively pray for their patients. There is, of course, a place for both approaches, but it is to be hoped that a more open mind will be seen in western hospitals where prayer and spiritual support for patients are brought centre stage rather than considered something from a previous age. Clearly there are links between feelings of isolation and the benefits that a sense of spiritual well-being can bring and this is likely to play a part in the apparent benefits of prayer. [40] Of course rigorous studies are needed but they need to be conducted in an appropriate way which takes account of the expertise related to prayer which exists in the religious world.

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Make it Out not Burnout

Asma Khan MRCGP, MA (Oxon), AFOM, DTMH,
Occupational Health Physician

Correspondence: YourWorkWellBeing@gmail.com

Introduction

I In spite of the challenges that our medical community have been exposed to since the onset of their training and in recent times of NHS austerity, this Covid era has undoubtedly generated a period of excessive strain for the majority of colleagues.

As I write this, the statistics indicate that we have highest death rate from Covid 19 in Europe and 119 medical/caring professionals lost to the disease here in the UK. I do not feel this article has the scope to cover organisational stressors at play. I hope rather to offer Muslim colleagues a level of holistic support addressing our material and metaphysical natures -strategies which I use in both my occupational health and stress management practice.

In my experience, the following are fundamental areas that must not be neglected for any prolonged period in order to maintain mental and physical wellbeing when we are excessively challenged. They are proven, effective methodologies to maintain optimal resilience-thus by definition helping us bounce back from tough times.

Live mindfully

This means daily, acknowledgement of your state in a very mindful and conscious way rather than working on auto pilot. How is your body feeling? Emotionally are you overwhelmed or very anxious? Are you just coping and need to reach out for support? Ensuring that you feel that you are working safely is a strong GMC recommendation and you cannot be faulted for reaching out. (1-3)

Commit regularly to this practice for at least ten minutes in the morning and evening in a deliberate, quiet, reflective state. Choose a place that is soothing to you for this exercise.

Likewise, an evening exercise of the same practice with additional gratitude and self-compassion for the difficult day you may have had will provide perspective of your limited human abilities- such meditation practices are proven to manage sympathetic overdrive in the body. (5)

Islam provides certain adkar or mantras that are known for their healing qualities.

1. The healing seven verses of Al Fatihah.
2. The Prophet (pbuh) offered the remembrance of subanhalla, alhamdullilah and Allahu akbar as well as inna lilayhi wa ilayhi rajiun to his companions at times of great stress as a means of succour.

It is important to actively release negative emotions too in this 'pause' time as they will affect neurological change with each stressful experience and contribute to depression, accelerated dyscopia and burnout. (4)

As Muslims, handing over difficulty more than we can bear to the Divine is part of faith. It can lighten one's burden to accept our service is ultimately to Al Hakim, Al Shifa-The Healer, Al Qadr ,Al Muhmit -The Destiner and Giver of Death.

Aligning core beliefs with external practice in this way is a documented potent aid to maintaining resilience.

Maintain your mindset at work

Manage personal workload expectations and rationalise you can't do it all. Discuss with colleagues your particular needs for instance, if you are struggling with psychosocial demands such as childcare.

Support your team with humour and camaraderie. Teamwork is fundamental to colleague wellbeing.

Likewise, remembrance ceremonies for lost colleagues are key to acknowledging their sacrifice and an important marker to help coping.

Ensure you feel safe at work to minimise any concerns as chronic anxiety is a risk for depression -lobby for good equipment to protect you and talk to occupational health services.

Undertake a sensible number of shifts and take breaks when you can. Ideally on a break, connecting with nature or daylight for 30 minutes or a 15 minute power nap has been shown to improve energy levels and alertness at work. (6)

Maintain physical stamina

Good diet is crucial to prevent burnout-evidence based tricks?

- Limiting caffeine and increasing slow burn carbs
- staying hydrated
- eating high energy giving snacks such as nuts throughout the day
- increasing organic turmeric intake and if acceptable probiotic yogurt 100 g a day, can help resilience. (ref 7)
- At these times food planning is key, when you shop, make a healthy menu for the week, take it to work and follow it. Do not snack on high sugar foods-a medium- and long-term energy killer

Exercise in moderation

Do not over exercise when you are stressed -this can undermine resilience but do undertake some form of stamina building. An online HIIT class for time sensitive maintenance of fitness or grounding yoga-Yin yoga in particular allows you to stretch and breathe and release negative knots built up in a tense working day, can be easily followed online.

Work life balance

Work life partitioning is key even if balance is difficult for healthcare workers in such times. Don't Whatsapp colleagues or Facebook about the situation when you are at home or lose valuable time scrolling. Don't answer

emails other than in allocated slots-instead watch a comedy /chat to your children/listen to music or simply be present as you-not in medical helper mode. This approach will reinforce a sense of wholeness and receiving others energy instead of constantly giving and feeling drained.

Ensuring that you focus on the above is your priority for these times so postpone longer term life goals with a sincere inshallah.

For now undertaking a compassionate, optimistic and realistic approach to self care will assuredly minimise risk of burnout.

I hope and pray these methods serve you well.

And finally, stress is an emerging area of science which needs more robust Randomised Control Trial evidence levels. However, my experience in stress management has contributed to discernment of the available strategies chosen and all do have some evidence basis.

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“Let’s Talk about Organ Donation”; from a UK Muslim Perspective

Omar Ali¹, Rio Gkekas¹, Tsz Tang¹, Sameer Ahmed², Saeed Ahmed³, Imadul Chowdhury⁴, Sharif Al-Ghazal⁵

¹Medical Student, Newcastle University

²Speciality Doctor in Anaesthesia and Critical Care, Newcastle upon Tyne Hospitals NHS Foundation Trust

³Consultant Nephrologist, South Tyneside and Sunderland NHS Foundation Trust

⁴Medical Student, Brighton and Sussex Medical School

⁵Consultant Plastic Surgeon, Bradford Teaching Hospitals NHS Foundation Trust

Correspondence: Omar Ali Omara98@hotmail.co.uk

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Abstract

There is a chronic shortage of transplant organs in the UK Muslim community. With the UK transition to an opt-out system, the British Islamic Medical Association held a nationwide series of educational meetings exploring barriers to organ donation. Eight public forum meetings were held between June 2019 and March 2020. A panel of experts and patients informed audiences about the process of organ donation and Islamic ethico-legal discourse. Attendees completed a self-administered questionnaire pre and post each meeting which captured demographic data along with opinions regarding permissibility and willingness to donate. Of 554 respondents, there were nearly equal numbers of men and women. The majority (78%) were South Asian. Only 45 (8%) respondents were already registered for organ donation before the event. The commonest reason was religious uncertainty. Before the educational meetings, half of the respondents (50%) were unsure of the permissibility of organ donation in Islam. Of those initially unsure or against the permissibility of organ donation and unwilling to register, 72% changed their opinion towards deeming it permissible and 60% towards a willingness to register indicating a significant change in opinion ($p < 0.001$). British Muslims are less likely than British non-Muslims to be organ donors, and religious concerns are a major, but not the only, perceived barrier. The effectiveness of our brief educational intervention suggests further education at the grassroots level may improve organ donation rates among the Muslim community.

Introduction

There is a significant shortage of organ donors amongst UK Muslim communities despite numerous public education campaigns. BAME groups represent 14% of the British population,(1) but only 7% of the opt-in NHS Organ Donation Register(2) and 31% of people on the transplant waiting list. Muslims represent 5% of the British population (3) and a significant proportion of BAME communities are Muslim. Many Muslims perceive the standpoint of their religion as a decisive factor in their behaviour towards organ donation (OD), and often await the official opinion of Muslim religious scholars on the issue.(4) Despite the release of a fatwa (a non-binding Islamic ethico-legal opinion) in 1995 by the UK Muslim Law (Shariah) Council and others around the world resolving the permissibility of live & deceased OD,(5) other non-religious barriers, differences in opinion and lack of discussion within communities have meant the Muslim minority in the UK still contributes little to OD.

With the current law change in the UK and transition to an opt-out system, informing Muslim communities is of great importance. Ethnicity data suggests that those who opt-out of the donor register are more likely to be from BAME backgrounds, and 56% of these opt-outs were made by people of an Asian ethnicity. It is therefore important to ensure these communities can make a fully informed decision. The UK's OD Taskforce recognised an urgent need to identify and implement the most effective methods to promote OD and registration to the public generally and ethnic minority populations specifically.(6)

The primary aim of this study is to examine the effectiveness of an educational session, delivered by local physicians and religious leaders, in increasing awareness of OD and its Islamic ethico-legal discourse and rulings within various UK Muslim communities. The secondary aims of this study were to explore both the effect of these interventions in resolving the uncertainties among attendees who were previously unsure of Islam's position towards OD and the willingness of these communities to register for OD post-intervention.

Methods:

The British Islamic Medical Association (BIMA) organised a national campaign named "Let's Talk about Organ Donation" with the aim of determining British Muslim attitudes towards OD and increase awareness of the OD process. Between June 2019 and March 2020, eight open public forums were conducted in various parts of the country (Glasgow, Leeds, London, Manchester, Newcastle, Nottingham and twice in Bradford). These locations were selected due to their relatively generous British Muslim populations. The events were advertised via social media, mosque announcements, the distribution of posters & leaflets in mosques and Islamic study circles, GP surgeries, pharmacies and through word of mouth. The events were held in a mixture of settings including public spaces, mosques and universities.

During the event, attendees listened to a panel of experts consisting of various OD & transplantation healthcare professionals, specialist nurses in OD (SNOD), Islamic scholars, local Imams and Muslim recipients of an organ transplant. Healthcare professionals involved varied with location and included consultants in Critical Care, Nephrology, Transplant surgery and regional clinical leads for OD. The panel was succeeded by a live anonymous Q&A session. Each intervention lasted approximately 3 hours and involved the panel introducing the concept of OD and relevant statistics, patient experiences of being a recipient, the OD process and law change, a discussion on the attitudes of British Muslims towards OD and on organ transplantation from the perspective of the Shariah. The latter part involved familiarising the audience with the current available fatawa on OD, the ethical and moral discourse behind scholars' conclusions and addressing common misconceptions about OD.

Attendees were asked to complete a 9-item anonymised, confidential self-administered questionnaire in English comprising mostly closed-ended questions with specific answer categories in order to gather demographic data and respondents' opinions (see *Figure 3*). The questionnaire was composed of two sections. The first section was completed before the start of the panel discussion and included questions related to demographics (age, gender, and ethnicity) & current OD registration status, as well as an open field for describing the barriers to registering. The second section included two questions regarding opinion on (1) permissibility of OD and (2) willingness to register presupposing OD was Halal. This section was completed before and after the event.

Results on the categorical variables were presented as percentage values. Analysis was performed using version 26 of the SPSS software. Pearson's Chi-Squared statistical test was used to evaluate correlations between different variables. Values with $p < 0.050$ were deemed to be statistically significant.

Results:

Demographics:

The educational intervention was held in eight sittings across seven cities. A total of 554 attendees completed the questionnaire.

Respondents were subdivided into groups for age, sex, ethnic origin, location, and OD card possession. The divisions and characteristics acquired from the survey are highlighted in (

Figure 4) and (Table1) and (Figure 2) below. The male to female ratio was 1.1:1. The most prevalent ethnic groups within the cohort were Pakistani (57.4%), Indian

(12.5%) and Arab (9.2%). Nottingham (18.2%) had the highest percentage of participants, followed by Bradford's 2020 run (16.4%) and Newcastle

Part A – BEFORE the session

Your Age: Your gender: Female Male

Your Ethnicity: Bangladesh Pakistani Indian Arab White Other

Are you on the registry for Organ Donation (Do you carry an Organ Donor card?) Yes No

If No, have you ever thought to register for Organ Donation? Yes No

If you haven't registered or thought to do so, why do you think you have not done so?

Do you think Organ Donation is: Halal (allowed) Haram (not allowed) Unsure

If you think it is Halal, would you consider registering for Organ Donation? Yes No Unsure

Part B – AFTER the session

Do you think Organ Donation is: Halal (allowed) Haram (not allowed) Unsure

If you think it is Halal, would you consider registering for Organ Donation? Yes No Unsure

Figure 3: Contents of the distributed questionnaire

(15.5%). Finally, 91.9% (n=509) of the study cohort did not possess an OD card, whereas 8.1% (n=45) did.

Organ Donation registration:

Only 45 (8.1%) respondents were already registered for OD before the event, and of those not registered, 138 (27.1%) indicated they had previously thought about registering. Those who highlighted their reasons for not registering (n=127) cited multiple reasons broadly classified as faith beliefs & views on religious permissibility (73%), lack of knowledge on OD (21%), family influence & reluctance to discuss OD (2%), death & burial concerns (2%) and moral considerations (2%).

Respondents from BAME backgrounds (Pakistani, Indian, Arab, Bangladeshi) were significantly less likely to be registered as organ donors than their White counterparts (p<0.001), with 10 out of 29 (34%) White

ethnicity respondents already registered but only 33 out of 487 (0.07%) respondents of BAME background.

Question 1 – ‘Do you think OD is religiously permissible?’

Before the education session, when questioned on their perception of the permissibility of OD in Islam (Question 1), only a minority of the cohort considered OD to be permissible (27.6%) and half (50.4%) were unsure. After the education session, there was an overall increase of 51.8% of participants who perceived OD to be permissible (p<0.001), resulting in an overwhelming 79.4% of the study cohort to consider OD permissible post-intervention. There was also a corresponding 18.2% decrease of participants who believed OD to be impermissible (p<0.001), coupled with a reduction of 33.6% of participants among the ‘Unsure’ population (p=0.006).

No specific age group or gender group was most likely to select a particular response pre- or post-intervention, and generally most groups manifested a significant shift post-

intervention towards permissibility (see Table 2). With regards to ethnicity, Pakistani individuals were most likely to respond ‘Impermissible’ pre-intervention, with

Demographics	Number of respondents (%)
Age (years)	
<20	98 (18)
21-40	219 (40)
41-60	182 (33)
61-80	52 (9)
>80	3 (0.5)
Gender	
Male	266 (48)
Female	288 (52)
Ethnicity	
Pakistani	318 (57)
Indian	69 (12)
Arab	51 (9)
Bangladeshi	49 (9)
White	29 (5)
Other (incl. Afro-Caribbean)	38 (7)

Table 1: Respondents’ demographic data

25.8% ($p=0.013$) such responses, which became 4.4% post-intervention, demonstrating a statistically significant decrease of 21.4% ($p<.001$). All ethnic groups evaluated through the Chi-squared analysis showed a net increase in ‘Permissible’ responses and a net decrease in ‘Impermissible’ responses post-intervention, which was all deemed to be statistically significant ($p<.050$). Significant decreases in ‘Unsure’ answers were also observed in the Arab population ($p=0.024$). The majority of those who did not possess an OD card were unsure about the religious permissibility of organ donation in Islam (52.5%) pre-intervention.#

Question 2 – ‘If it is religiously permissible, would you consider registering for OD?’

When asked if they would consider registering as an organ donor under the condition that OD was religiously permissible (Question 2), 53.6% of participants answered ‘Yes’, whereas 46.4% answered ‘No’ or ‘Unsure’ before the intervention. When posed the same question after the session, there was an increase of 25.8% of participants who answered ‘Yes’ ($p<0.001$). Indeed, there was also a decrease of 7.2% and 18.6% among those who objected to or were unsure, respectively ($p<0.001$).

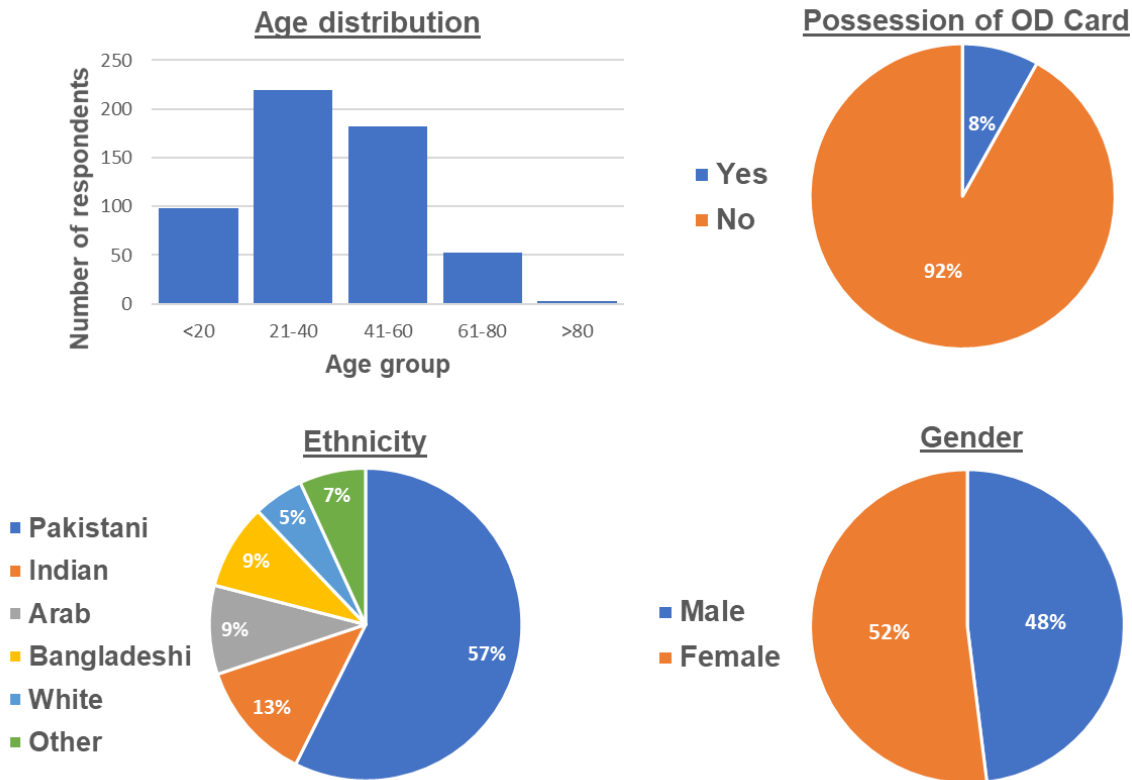


Figure 4: Respondent demographics

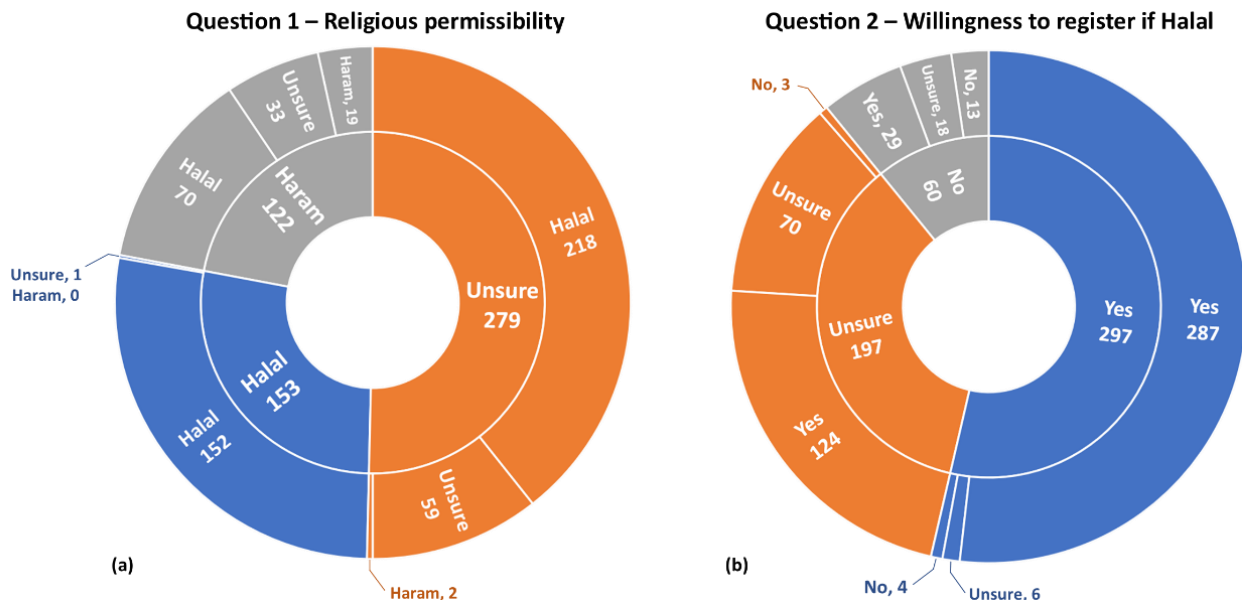


Figure 5: Pre- and post-intervention perceptions on (a) religious permissibility, (b) willingness to register if OD was considered Halal. Inner ring displays number of responses pre-intervention. Outer ring displays post-interventional responses, broken down according to pre-interventional response.

Net Change in Question 1 responses (OD permissibility)

Net Change in Question 2 responses (Willingness to register)

Variables	Halal (%)	<i>P</i>	Haram (%)	<i>P</i>	Unsure (%)	<i>P</i>	Yes (%)	<i>P</i>	No (%)	<i>P</i>	Unsure (%)	<i>P</i>
Age(y)												
<18 [n=47]	53.2	.037	-21.3	.014	-31.9	.105	23.4	.000	-8.5	.000	-14.9	.000
18-24 [n=99]	53.5	.003	-27.3	.026	-26.3	.076	16.2	.000	-10.1	.000	-6.1	.008
25-34 [n=103]	55.3	.004	-15.5	.000	-39.8	.636	27.2	.002	-5.8	.030	-21.4	.025
35-44 [n=114]	45.6	.000	-16.7	.000	-28.9	.068	30.7	.000	-3.5	.000	-27.2	.000
45-54 [n=101]	54.5	.005	-16.8	.003	-37.6	.796	27.7	.000	-5.0	.015	-22.8	.000
55-64 [n=50]	48.0	.080	-10.0	.006	-38.0	.287	32.0	.004	-6.0	.054	26.0	.011
65+ [n=40]	52.5	.051	-17.5	.339	-35.0	.893	22.5	.001	-20.0	.060	-2.5	.037
Sex												
Female [n=266]	54.9	.000	-19.9	.000	-35.0	.128	26.3	.000	-6.4	.000	-19.9	.000
Male [n=288]	49.0	.000	-16.7	.000	-32.3	.018	25.3	.000	-8.0	.000	-17.4	.000
Ethnic Origin												
Pakistani [n=318]	51.3	.000	-21.4	.000	-29.9	.083	27.4	.000	-8.2	.000	-19.2	.000
Indian [n=69]	55.1	.024	-17.4	.001	-37.7	.781	20.3	.000	-4.3	.018	-15.9	.001
Arab [n=51]	47.1	.018	-11.8	-	-35.3	.024	19.6	.000	-2.0	.091	-17.6	.003
Bangladeshi [n=49]	49.0	.024	-16.3	.004	-32.7	.252	28.6	.001	-12.2	-	-16.3	.005
White [n=29]	75.9	-	-6.9	-	-69.0	-	37.9	.120	-6.9	-	-31.0	.046
Other [n=38]	42.1	.013	-13.2	.002	-28.9	.057	18.4	.001	-5.3	.004	-13.2	.000
OD Card												
Yes [n=45]	22.2	.445	0.0	-	-22.2	.445	17.8	.007	0.0	-	-17.8	.007
No [n=509]	54.4	.000	-19.8	.000	-34.6	.017	26.5	.000	-7.9	.000	-18.7	.000
Total [n=554]	51.8	.000	-18.2	.000	-33.6	.006	25.8	.000	-7.2	.000	-18.6	.000

Table 2: Net percentage change in number of responses for Question 1 and 2 in relation to each demographic variable. Percentage values demonstrate percentage of row total for each question. Significant *p*-values highlighted in bold. Total net change in responses is seen in the final row.

All age groups displayed a significant net increase in “Yes” responses and net decrease in “Unsure” responses, with all groups under 55 years also showing a significant decrease in “No” responses. Across both sexes, all net shifts were statistically significant. There was a statistically significant increase in ‘Yes’ responses towards Question 2 for all ethnicities ($p < .050$), except for the white population. For the ethnic groups assessed via the Chi-Squared analysis, all but Arabs showed a statistically significant decrease, the largest of which were Pakistanis at 8.2% ($p < .001$). All ethnicities demonstrated a statistically significant fall in the ‘Unsure’ responses, with the white population having the largest decrease at 31.0% ($p = 0.046$). There appeared to be a general post-interventional decrease in ‘No’ and ‘Unsure’ answers regardless of possession of an OD card, except for those who possessed an OD card pre-intervention, which had 0.0% unwilling to register as a donor

Discussion:

This study aims to explore the effects of educational interventions aimed at Muslim communities around the UK on perceptions towards religious permissibility for OD and willingness to register as a donor.

Overall findings suggest a consistent net post-interventional increase in the number of attendees considering OD to be religiously permissible, across all variables. This trend presents in tandem with a post-interventional net decrease in participants who previously considered OD to be impermissible, were unwilling to register as a donor or were unsure of either across all variables. As evidenced in

Question 1 – Religious permissibility

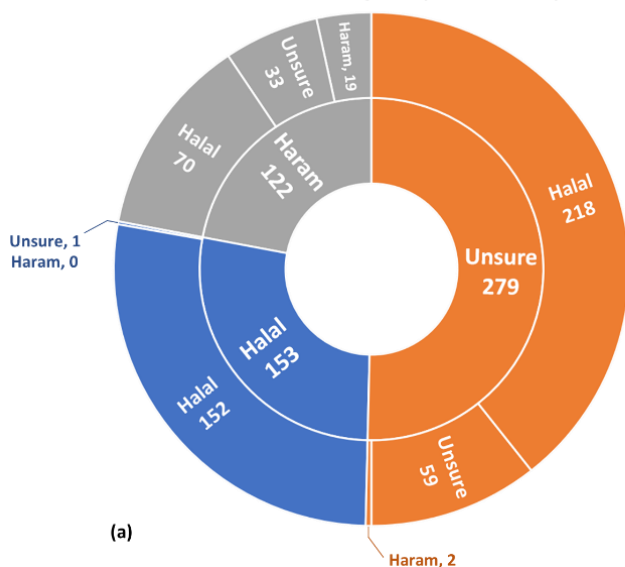


Figure 5, among the 122 participants who answered ‘Impermissible’/‘Haram’ in Question 1, a majority changed their minds and answered ‘Permissible’/‘Halal’ post-intervention. These findings are remarkable as they demonstrate the effectiveness of an educational programme in increasing awareness of the permissibility of OD among Muslim communities.

Another theme we wished to address throughout the study was participant uncertainty and doubts over OD. Irrespective of age, sex, or ethnic origin, there was a substantial shift from ‘Unsure’ responses towards ‘Halal’ and ‘Yes’ answers for Question 1 and Question 2, respectively. This change is emphasized in

Question 1 – Religious permissibility

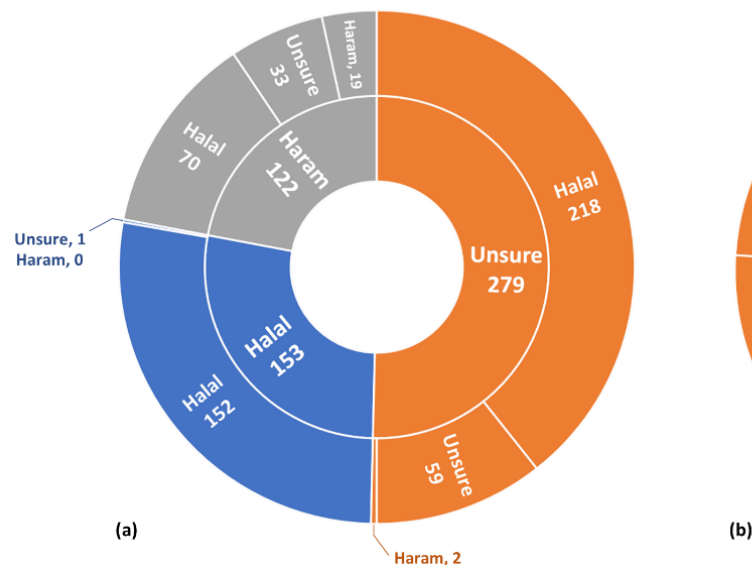


Figure 5, which shows that a large proportion of post-interventional ‘Halal’ responses originated from the population that had responded ‘Unsure’ pre-intervention. Furthermore, this shift was also present in Question 2, whereby a large percentage (62.9%) of those who answered ‘Unsure’ before the session, changed their minds to ‘Yes’ afterwards. Thus, we can postulate that the intervention was successful in shifting participants’ perspectives regarding OD and donor registration from uncertainty towards a more positive stance.

The final aspect that we wanted to explore during this study was whether the intervention was effective in improving participants’ willingness to register as organ donors. Before the study, most participants did not possess an OD card but stated that they were willing to register for OD under the condition that it was religiously permissible, a subject addressed previously. Furthermore, there was also a significant number of those who were still unsure or were against registration, despite the assumption that it was permissible in Islam. In the results

for Question 2, there was a significant post-interventional decrease in those unwilling to register or were unsure, which was especially pertinent as this group had responded as such despite the assumption of OD being religiously permissible. This emphasises that religious concerns are certainly not the only barriers to many Muslims, and that even after addressing them there remain other anxieties pertinent. Our educational interventions involved delivering considerable information on the technical processes and procedures of OD before delving into faith-based discussions. Our data suggests including such empirical and specialist information is essential in motivating a significant proportion of Muslims. Healthcare professionals should not lose sight of this when conversing with Muslim patients and families.

In our study, we did find that Muslims community members were less likely to be registered organ donors than White respondents and the general population. The organ donor rate of 8% of our sample roughly matches the population-wide BAME rate of 7.1% (2). We found most respondents were unaware of the religious position on the matter, and that for many, religious concerns were the foremost constraint to donation. A strong emphasis on understanding Islam's position has been found in multiple studies.(7, 8) Compared to 1% of White families, 30% of Asian families cite religious beliefs as their reasons for refusing to consent for OD.(2) A global survey found that 69% of Muslims living in the West agreed with OD in principle but only 39% deemed it compatible with their religion, and that higher self-rated religiosity correlated with less positive views.(4)

The Islamic ethico-legal discourse on OD is varied with scholars divided into three broad categories; (1) live and/or deceased OD is categorically impermissible as it violates human sanctity & dignity or due to repudiation of the notion of brain death, (2) OD is contingently permissible on the basis of dire necessity, and (3) OD is permissible or even praiseworthy as it serves the general human and public interest. The majority of individual scholars and juridical councils fall into the 3rd category and deem OD and transplantation to be ethico-legally permissible. It is worth noting, however, that these religious verdicts are non-binding, and individuals and institutions are free to select their appropriate fatwa based on the presented arguments and moral authority of the juriconsult. In 1995, the Muslim Law (Shariah) Council of the UK issued a fatwa deeming OD permissible, in line with major global religious institutions such as the Islamic Fiqh Academy of the Organisation of Islam Conference, the Grand Ulama

Council of Saudi Arabia and Al-Azhar Academy of Egypt.(5) In 2000, the European Council for Fatwa & Research issued a similar statement.(9)

Despite the majority of religious scholars supporting OD, this favourable disposition has not been translated into acceptance rates amongst the UK Muslim community. In a 1998 survey in Luton, Rhandawa et al found that despite Muslim respondents perceiving their religion's standpoint as a decisive factor in shaping their opinion of OD and awaiting a religious scholar's opinion, only a small minority of respondents had heard about the 1995 fatwa.(10) Fatwa-centred interventions have generally proven unsuccessful in reaching out to the general public and overcoming Muslim reticence towards OD. Rasheed & Padela posit the need for a shift away from focussing on advertising fatawa and official, academic legal verdicts to engaging with local trusted representatives and providers of spiritual guidance, such as the local imam or religious mentor, in transmitting and interpreting these fatawa and effecting real health behavioural change in the Muslim laity.(11)

Our data suggests that though most respondents were initially unsure of the religious permissibility of donation, information and clarification from scholars alongside local mosque Imams & community members on the religious bioethical discourse can produce a positive shift towards donation. This large positive change suggests this is not an issue widely discussed amongst Muslim communities and that many of these communities remain in the pre-contemplation stage. Only 27% of respondents not carrying a donor card identified they'd previously considered registering, and 53% indicated before the intervention that if OD was permissible they would be willing to register. The positive shift to 79% willing to register after the event, and the majority of the remaining respondents unsure rather than in opposition to registration, highlights the potential for OD amongst UK Muslims.

Strengths of this study include the large sample size and the use of a standard survey across multiple cities throughout the UK. The primary limitation of this study is regarding the sampling bias, due to Muslim and BAME communities being the targets of the educational sessions explored in this study. Thus, the participants may not reflect the general attitudes in society at large due to the lack of randomisation with the open nature of the educational session. Furthermore, the wording of the questionnaire was a limitation as a potential confounding factor in our methodology. For example, Question 2 in Part A seemed to ask whether the participant would

register for organ donation under the condition that it is religiously permissible. Whereas, in Part B, the answer to Question 2 is dependent on the response to Question 1. Finally, the presentation and questionnaire were both in English, which could have itself presented as a barrier to those for whom English is not their first language. Whilst the events were advertised and geared towards Muslims, there was no confirmation of respondents' religion or denomination (although there is little difference amongst Sunni & Shia scholars on the permissibility of OD).

Greater detail on perspectives is warranted such as willingness to accept an organ, views on live versus deceased donation and views on brain death. Our sample populations may not be representative since attendees would more likely be uncertain from the start over the topic of OD to have found it necessary to attend such events. Although there was positive movement post-intervention towards readiness to become an organ donor, and willingness to register matched views on permissibility, whether attendees later took action and signed a donor card (or did not opt out) is unclear and requires further follow-up. One study has previously shown only a small proportion of participants stating an intention to register actually do so at follow-up.(12)

Recommendations for future research include gathering more detailed demographic data to establish specific population groups amongst British Muslims in particular need of information or in influential positions in their social network to encourage discussion and affect change. Research on the opinions of Imams and local mosque leads is lacking – the only study on this issue included only three Muslim organisation leaders.(13) Reaching out to local imams and preachers and examining the barriers to their involvement in health promotion and the challenges they face with regards to OD is an important step. Appropriate follow-up studies are essential to assess whether these changes in behaviour are actualised. Furthermore, it may be interesting to explore the specific barriers encountered by those who remain resistant to OD post-intervention and improve the content or delivery of these sessions. As this OD education programme is ongoing, we will be able to address the limitations mentioned previously, improve on the methodology and ensure these sessions are delivered effectively to the targeted communities.

Conclusion:

In summary, we identified multiple barriers to OD amongst Muslim communities in the UK. Our focussed local educational interventions produced a significant

positive shift in opinion of participants towards OD's religious permissibility whilst reducing uncertainty and may be used to increase the willingness of Muslim groups to become organ donors. Further work & follow up is needed to evaluate the efficacy of this educational intervention. With the shortage of organs for transplantation, the growing Muslim, BAME & immigrant communities and the UK's transition to an opt-out system, such discussions are surfacing across households & places of worship, and there is a need for the input of local community leaders, healthcare professionals and faith leaders to provide the information & clarification necessary to deal with medical, ethical, religious & cultural concerns regarding OD and enable the formulation of an informed decision.

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A study of the Fatawa on Brain (stem) Death

Zubair Umer Mohamed,

Consultant in Organ Transplant Anaesthesia and Critical Care, Amrita Institute of Medical Sciences, Kochi, Kerala, India

Correspondence: zubairumer@gmail.com

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This manuscript is part of the thesis submitted to International Open University, Gambia, for the Bachelor of Arts (Islamic Studies) Course.

Abstract

This paper explores the information that is freely available on the internet to the English reader regarding the Islamic ruling on the legality on brain death. The information available in the medical literature, Islamic websites and search engines, and general google search is analysed. Medical professionals are not unanimous in the acceptance of brain death as a form of death and so are the Islamic scholars. Although, medical literature seems to suggest that majority of the Islamic scholars approve of brain death as a form of death, the information available, in English, on Islamic and fatwa websites imply a general disapproval of this concept. Transplantation, organ donation and brain death are three different, albeit inter-related concepts that deserve independent fatwas. Many fatwas tend to homogenise them adding to the confusion of the end user. This pattern transcends both Sunni and Shia schools of thought. A uniform verdict agreeable to all Islamic scholars is not available.

Introduction

Modern science has garnered many comforts in life - improved healthcare being a pertinent example. A common medical cause for death is failure of one or more of the vital organs including the heart, brain, liver, kidney and the like. Humans have gained the knowledge of replacing some of these failed organs in order to preserve life- preservation of life being one of the five maqasid (aims and intentions) of shariah. (1) The question then arises as to where these organs come from. Currently, modern medicine has two solutions to this issue. One is to use the organs from dead people and the other is to remove it from alive people. However, while some organs like blood, kidney, part of the liver etc can be removed from alive persons with reasonable safety, certain other organs like heart, pancreas etc will be available only from dead people. Cause of death, in modern medicine, has been divided into two types- death due to stoppage of heart and death due to brain failure. (2) While death due to stoppage of heart is compatible with the Islamic teachings regarding death, death due to

brain failure - also called brain death or brain stem death- is not so explicit from traditional Islamic teachings. (3) Brain death, as a form of death, is a relatively new diagnosis that emerged in the 20th century, with the advent of ventilators and other organ support systems. It is an accepted diagnosis and a legally endorsed form of death among almost all the countries in the world. Brain death is determined not only to inform decisions regarding direction of medical care but also to explore the possibility of organ donation. This has led to various Islamic organisations, governmental and non-governmental institutions providing various Islamic rulings (fatawa/ fatwas), sometimes contradictory, on the Islamic legality, of brain death.

We aimed to assimilate the information regarding the position taken by various Islamic organisations on the Islamic validity of brain death.

Definition of the term used (operational definitions) :

Fatwa: A fatwā is an Islamic legal pronouncement, issued by an expert in religious law (mufti), pertaining to a

specific issue, usually at the request of an individual or judge to resolve an issue where Islamic jurisprudence (fiqh), is unclear. (4) Plurals can be fatawa or fatwas.

Brain death: Diagnosis and confirmation of death based on the irreversible cessation of functioning of the entire brain, including brainstem. Although both 'brain death' and 'brain stem death' has been used, sometimes interchangeably, in medical literature, I will be using the term 'brain death' as it is the more commonly used term. From a medical point of view, for all practical purposes, they mean the same thing. (2)

Organisation: Any body that has issued a fatwa on brain death. This can be state policy, governmental body, learned society, individual or anonymous fatwa issuing body.

Methodology

In this exploratory study, the source of data is the world wide web. In order to capture most, if not all, of the available literature in English language, the following 3 step (A-C) strategy was used.

A. Literature search in Islamic search engines.

The following search words were used in Google search engine: 'Islamic search engine'

Each of the identified website was searched using the following search words:

(Islam OR Islamic OR Muslim OR Fatwa OR Fatawa) AND (Brain OR Brainstem) AND (death OR dead)

B. Fatwa search in English fatwa websites

The following search words were used in Google search engine:

(fatwa website english OR fatawa website english).

The following search words was used is each of the identified islamic websites:

Brain death OR Brainstem death

C. Literature search in Internet Search engines

The following search words were used

(Brain death OR Brainstem death) AND (Islam)

Results

A. Fatwa search in English fatwa websites. The online searches were conducted on 25 Dec 2019 using the search word 'fatwa website english' in www.google.com. A total of 14,80,000 hits were received. These were confined to 14 pages and 39 websites. Table 1 summarises this search. Among the 39 websites only 13

provided any result for the search word 'brain death' or 'brain stem death'. Table 2 provides the summary of the fatwa obtained, among the websites that had a positive response.

B. Literature search in Islamic search engines

The online searches were conducted on 25 Dec 2019. Google search 'Islamic search engine' provided 2,76,00,000 hits. Search engines that are used to browse Quran or Hadith only were intentionally avoided. Each search engine was individually accessed and the word 'brain death' or ' brain stem death' was used to search for relevant material.

Date of individual website search was 28 Dec 2019. Results of the search are tabulated in Table 3.

C. Literature search in Internet Search engines

The following search words was typed in Google search Engine on 6 Jan 2020.

(Brain death OR Brainstem death) AND (Islam).

23,700,000 hits were recorded and all hits were screened for suitability.

The following added information was received from the search on internet search engines that was not available with the earlier searches.

1. Singapore, Indonesia and Malaysia approved on brain death as a form of death in 1987,1996 and 2006 respectively (5)

2. Qatar law supports brain death (6)

3. Dar al-Ifta Jordan and The National Fatwa Council of Malaysia says that the death of a person's brain is considered as dead according to Islamic law after it is confirmed by an expert physician after following certain conditions. (7)

Discussion

This is the first study that we are aware of, that specifically looked at the information readily available in English on the internet on the topic of Islam and brain death. We divided the sources of information into 3 categories- Islamic fatwa websites, Islamic search engines and 'Google' searches. This paper does not critique individual fatwas nor explores individual/group blogs available on the internet. Whilst brain death, organ donation and organ transplantation are related, it is important to be aware that they are independent entities that deserve different fatwa. This study does not deal with organ donation or transplantation. Not all brain dead patients can be organ donors and not all organ donors need to be brain dead. Also, not all organs can be

transplanted. Brain death is a medical diagnosis to decide if a person is legally dead or not.

Brain death: Origin and Evolution

The human brain is situated within the skull, and the brainstem, is a part of the brain, that connects the brain with the spinal cord. The parts of the brain that control breathing, heart beat and blood pressure are located in the brain stem (Figure 1). The basic premise of the concept of brain death is that if the life sustaining functions of a human being i.e., heart and lung functions, cannot be maintained without the support of machines due to irreversible brain damage, then the patient is dead. A brain dead patient cannot initiate breath, is ventilator dependent, is unconscious and has no response to external stimuli. The cause of the irreversible brain damage has to be determined and a series of objective, verifiable tests need to confirm the non-functioning of heart and lung control centres. These tests are repeated atleast twice over a pre-determined time frame before death is declared. All tests are carried out by qualified medical professionals. Brain death is different from coma or persistent vegetative state.

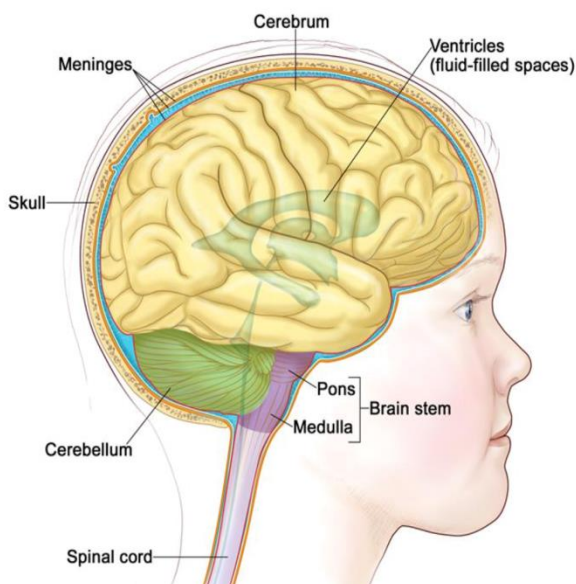


Figure 1: Anatomy of the Brain

The earliest recorded medical observation that comments on the significance of brain for maintaining breathing is from the last decade of 19th century (8). The committee of the Harvard Medical School came up with the first widely accepted definition of brain death in 1968. (9)

They described 4 criteria for the diagnosis of this condition, namely

- Non-responsiveness to external stimuli,
- Absence of spontaneous breathing activity
- Absence of any reflex activity -brainstem mediated and spinal reflexes
- Absence of brain electrical activity

A similar attempt to define brain death occurred at the Conference of Medical Royal Colleges and their Faculties in the United Kingdom, in 1976, and they defined this entity as brain stem death. They agreed on similar parameters to the American counterpart, except that absence of brain electrical activity was not mandatory (10). The British argued that since brain stem was the seat of the most important brain function, a damage serious enough to cause destruction of the most important brain structures was enough to irreversibly damage the brain and therefore, monitoring or absence of the whole brain electrical activity was inconsequential. This conceptual difference is important to bear in mind as many of the subsequent criticisms by bioethicists stem from the fact that the activity or the absence thereof, of whole brain is not monitored. In the 2000s, there was a general convergence in the guidelines for certification of brain death following the publication of the code of practice for the diagnosis and confirmation of death by the Academy of the Royal College in 2008 and the Evidence based guideline update published by the American Academy of Neurology in 2010. (11)

Islamic Viewpoint of Brain Death

While the overwhelming majority of medical literature gives the impression that brain death is accepted from an Islamic perspective, there is a small but significant active minority that question this, namely Dr MY Rady, Ahmet Bedir, Sahin Aksoy Aasim Padela (12,13,14,15). However, many Islamic and fatwa websites inform that brain death is not considered equivalent to legal death. We were, however, not equipped to find about the website traffic/hits and to what extent each website is able to influence decision among lay Muslims seeking a legal opinion in English language.

Most of the information regarding Islamic viewpoint on brain death, that is available in medical literature, can be divided into two categories of fatwas. In the countries with a majority Muslim population, there are fatwas from nationally accredited or acknowledged fatwa bodies. (Table 4) (14, 16, 17, 18). Among the countries where Muslims are a minority, fatwas from loco-regional

religious bodies and individuals predominate. The European Council for Fatwa and Research (ECFR), based in Dublin, Ireland, was established in 1997 and it focuses on issues with specific relevance to Muslims living as religious minorities in the West. It is usually argued that the fatwas issued by this council enjoy growing acceptance among Muslims living in Europe in addition to increasing interest from the European political authorities (19). The Islamic Medical Association of North America (IMANA) was established in 1967 by doctors of North America and provide medical and non-medical support to clinicians and lay persons of North America and beyond. While they do not claim to be a fatwa organisation, they have provided an opinion on brain death, from an Islamic perspective, in their publication 'The IMANA Perspective' (20). The fatwas from organisations from Singapore, India and South Africa are not regulated by the respective governments and do not have a bearing on national law. It is important to note here, that as there is no hierarchical structure in Islam, a fatwa given by a person or a group of persons is not binding on any individual and they may seek the opinion of the local imam, who may have his own view about brain death (21, 22). To summarise, it seems that none of the fatwa organisations, both in Muslim majority and minority countries, seem to have a nationally applicable legal nature. They can, at best, serve to guide the individual who seeks to gain from that information. Table 5 gives the chronology of some of the landmark meetings and fatwas in this field.

Concept of death in traditional Islamic scholarship

Next, I shall try to explore why would there be a difference in opinion among the scholars regarding the legality of brain death. The primary sources used by the scholars—the nusus, the Quran and the Sunnah, are the same. The secondary sources namely, qiyas and ijma'a, and the order of preference given to them and the use of ijthihad can vary depending on the school of thought and the legal upbringing and training.

The Holy Qur'an emphasizes the universality of death
3:156: And it is Allah who gives life and causes death, and Allah is Seeing of what you do.

3:185: Every soul will taste death, and you will only be given your [full] compensation on the Day of Resurrection.

29:57: Every soul will taste death. Then to Us will you be returned. (29)

From Islamic teachings, we understand that the moment of death (al-mawt) would be at the time the soul (ruh ; sometimes used interchangeably with al-nafs) is

separated from the soulless body. However, a precise definition of death or a precise description of how to recognize the departure ruh is not mentioned in either the Qu'ran or the Sunnah. At an Islamic seminar held in 1981, the participants concluded that the Qu'ran does not define death. The spirit of the ethical principle of nonmaleficence is manifest through the axiom "no harm shall be inflicted or reciprocated in Islam- la darar wa la dirar fi 'l-islam. (16, 18)

According to prior Islamic scholarship, death was defined through 9 signs

- Stoppage of breathing
- Staring eyes
- Opening of the mouth
- Dislocation of the hands from the forearms
- Stretching of the facial skin
- Shrinking of the testicles upward with drooping of the scrotum
- Crookedness or deviation of the nose
- Subsidence of the temples
- Relaxation of the feet

Some Arab scholars, subsequently, added the following signs of death:

- Cardiac arrest
- Skin color changes
- Absence of a blink reflex
- Stillness of the whole body
- Opacification of the corneas
- Absence of dorsalis pedis, posterior tibial and femoral pulses.

It is necessary to mention here that cardiac arrest was not a sign of death according to these legal scholars, although the existence of a pulse was considered proof of life (18)

The concept of brain death divided the muslim scholarship into 2 broad categories as far as the acceptance is considered- the ones who equate brain death to legal, Islamically acceptable death and the ones who do not. (Table 6)

Bamoussa and colleagues elegantly describes the reasons behind each of the thought process. The ones who equate brain death with legal death argue that

- 1) Human life ends in contrast to what started it—so, as the life started with the merging of the body and soul, life will end by them parting from each other;
- 2) The soul cannot be researched in terms of its physical and biological characteristics nor when or how it merges with or separates from the body;
- 3) The soul cannot be defined,

And they ask you, [O Muhammad], about the soul. Say, "The soul is of the affair of my Lord. And mankind have not been given of knowledge except a little." 15:85

The other group reason that

1) The Holy Quran states in Sura Al Kahf, Verse 11, 12: "So We cast [a cover of sleep] over their ears within the cave for a number of years. Then We awakened them that We might show which of the two factions was most precise in calculating what [extent] they had remained in time." Therefore, they argue that loss of senses (hearing), which is one of the 3 criteria used to define brain death, is not a sign of death.

2) If anything was in any state, it will stay in that state unless proven otherwise- therefore, as none of the previously mentioned 9 criteria are fulfilled, death cannot be declared.

3) The preservation of life is one of the 5 goals of Shariah law, and the fulfillment of that goal for a human being with the slightest chance of being alive is a strong point in favour of continuing care. (18)

The above mentioned differences of opinion exist among scholars when burden of deciding whether death has occurred or not, is on the Islamic scholars. The argument about the nature of soul and characteristics of death and their timing is bypassed when the fatwa body takes the position that the doctors decide if the patient is dead. Once that hurdle is bypassed, the next question hinges on whether continuing medical care when the person is already dead is acceptable Islamically or not. This is an easy proposition to have and an easier decision to make.

It seems the composition of the fatwa council, the decision-maker regarding who determines whether death has occurred, and possibly cultural background seem to influence the decision.

1. The composition of the fatwa council: The earlier fatwas in the Islamic world and most fatwas from the subcontinent were by Islamic scholar with no or minimal medical input. (40, Table 2)
2. The decision-maker: If the decision maker on whether the person is dead or not is made by the doctors, the fatwa is more likely to become in favour of brain death being equated with death.
3. Cultural background: The scholars from the subcontinent and those who have the roots from the subcontinent seem to overwhelmingly not equate brain death with death. The Majlis al Ulema, South Africa seem to be the only exception here.

Academic medical literature seem to suggest that majority of Muslim scholars - both the Sunni and Shia

schools- agree to brain death as a form of death, and their evidence is backed by fatwas from national politically backed religious bodies and international fatwas from influential multinational councils. Medical literature is also ripe with examples of Muslims lagging behind the rest of the population as far as acceptance of brain death is concerned (31). One possible reason for this could be that the average Muslim tends to get his religious guidance from the local scholars and possibly the internet. It has been repeatedly shown that bioethical decision among Muslims rely heavily on the religious verdicts and it is important for them to be aware of the 'religious take' on a particular issue (19, 32, 33). This has been cited as one of the reason for the decreased diagnosis of brain death in Saudi Arabia despite a state backed fatwa approving of this diagnosis. (34). Whilst many local scholars may not be familiar with the newer medical concepts of brain death and tend to err on the side of caution and deem the 'new' form of death as 'unislamic'. A search on the internet is also more likely to provide access to a fatwa that declares brain death to be 'unacceptable Islamically'. It may be assumed that most people may not discuss death and its various types among their family members as it is considered a taboo. This, therefore, follows that the first encounter, of any significance, that most Muslims have regarding the concept of brain death is during the illness of their near or dear ones. This is usually an emotionally charged situation and most relatives would not want to make 'unusual' decisions on behalf of their relatives and would want to continue treatment, hoping for a 'medical miracle'. This leads to a situation where acceptance of brain death becomes difficult.

The concept of brain death has not been universally accepted among physicians and ethicists. The arguments include, among others, inability to medically quantify awareness, 'all' neurological functions not being absent or tested, maintenance of blood flow to certain parts of the brain in selected cases, brain dead patients continuing to have certain co-ordinated biological, homeostatic and cardiovascular functions, and other higher functions like wound healing, maintenance of pregnancy after completion of brain death (with mechanical and chemical support) etc.(11, 12, 13, 14) An important argument highlighted by the ethicists, that has an Islamic parallel, is the ambiguity in defining the time of death in brain death. The ethicists argue that death is a process in which varying cells of the same human die at varying speeds. Therefore, at one point in time after the brain death is pronounced, certain cells within the body are still viable (which is why they may be used for organ transplantation), while certain others are not. The issue

that medical science is confronted with is, to determine a point in time where a process is supposed to have occurred, when the individual components, the beginning or the end of the process, can themselves, not be measured.

Limitations of this study

1. I confined my search to the information available on the internet in English language, while the vast majority of traditional Islamic literature is in Arabic, Urdu, Persian, Bengali and Turkish languages. Since brain death is a relatively new problem specific to modern medicine, the belief is that most materials would be available in English language. However, the overwhelming majority of the fatwas were written in Arabic, Urdu or Persian and what is available to the author is the English translation. It is possible that some of the nuances of the intention within the fatwa might be lost in translation.
2. The national legislation in a language other than English is not available to the author.
3. The general internet search was conducted only on Google.
4. It needs to be mentioned that brain death, organ donation and organ transplantation are three different, albeit related, issues and this thesis only intends to look at the information available on brain death. The analysis of the fatwas and the final interpretation of whether brain death is acceptable or not from an Islamic perspective is beyond the scope of this thesis.

Conclusion

1. The difference among the medical profession about the definition of brain death and therefore, the tests required to demonstrate it, also differ based on which part of the world you live in.
2. A small, but significant, minority among physicians and ethicists do not consider brain death as equivalent to death.
3. The crux of their problem is the inability to give a process (i.e., death) a definite time.
4. The reason for the different ruling among Islamic scholars can be summarised into 2 basic questions.
 - a) Who defines death- medical doctors or Islamic scholars
 - b) Death is the time when the ruh leaves. But as we cannot measure it, how can we time it?
5. Medical literature seems to suggest that most scholars equate brain death to death. However, search of the Islamic websites, including fatwa available online seem

to suggest that many Sunni and Shia scholars do not accept brain death as equivalent to death. The repeated citing of the same reference seems to have led to a uniformisation in the medical literature, of an otherwise mixed message from the real world.

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Appendices

Table 1: List of the websites accessed

No	Name of the website	Host Information	Response
1	https://www.amjaonline.org/fatwa/en/	Assembly of Muslim Jurists of America	Yes
2	https://www.islamweb.net	Qatar	Yes
3	http://www.fatwaislam.com/fatwa/is/	Not available	No
4	http://www.dar-alifta.org	Works under the supervision of the Grand Mufti of Egypt	Yes
5	https://www.awqaf.gov.ae/en/officialfatwacenter	United Arab Emirates	No
6	https://islamqa.info/en/search	Sh. Muhammed Salih al-Munajjid, Saudi Arabia	Yes
7	http://www.darulifta-deoband.com	Deoband, India	Yes
8	http://wahidkhorasani.com/English/Fatwa	Ayatullah Vahid Khorasani, Iran	No
9	https://www.muis.gov.sg	The Council of Majlis Ugama Islam Singapura	Yes
10	https://www.islamicsupremecouncil.org	Sh. Muhammed Hisham Kabbani, Deputy Leader of the Naqshbandi Haqqani Sufi Order	No
11	https://www.sistani.org/english/book/48/	Grand Ayatollah Sayyid Ali Hussaini Sistani, Iran	No

No	Name of the website	Host Information	Response
12	http://www.fatwa-online.com	Not available	No
13	http://binbayyah.net	Chairman of the UAE Fatwa Council	No
14	http://www.fatwaonline.org	Mufti Aijaz Arshad Qasmi, Peace Foundation, India	No
15	http://www.darululoom-deoband.com/english/	Dar Ul loom, Deoband, India	No
16	https://muftitaqiusmani.com/en/	Mufti Muhammad Taqi Usmani, Pakistan	No
17	http://www.askislam.org	Not available	No
18	https://islamqa.org/hanafi/askimam/81146	Mufti Ebrahim Desai, SouthAfrica	No
19	http://fatwacommitteeuk.com	The European Council for Fatwa Research	No
20	http://www.islamic-sharia.org	Dr Suhaib Hasan, UK	No
21	https://makarem.ir/main.aspx?lid=1&typeinfo=30&catid=9001	Grand Ayatollah Makarem Shirazi	No
22	https://www.ahlehadees.org	The Ahle Hadees, India	No
23	https://aboutislam.net	Not available	Yes
24	http://www.english.shirazi.ir	Eminent Grand Islamic Authority Ayatollah Sayid Sadiq Hussaini Shirazi, Iran	Yes
25	http://www.islamland.com/english/fatawas	Not available	No
26	http://www.almeezan.qa/default.aspx?language=en	Qatar	No
27	https://www.darulfatwa.org.au/en/	Darul-Fatwa (High Islamic Council), Australia	No
28	http://www.al-mawrid.org	Pakistan	Yes
29	https://www.iacad.gov.ae/en/Pages/default.aspx	Government of Dubai	No

No	Name of the website	Host Information	Response
30	http://ahsanululoom.org/Fatwa-Service	Pakistan	No
31	https://www.eufatwa.com	Not available	No
32	http://askimam.org	Mufti Ebrahim Desai, South Africa	No
33	www.e-fatwa.gov.my	Malaysian Government	No
34	www.islamhouse.com	Islamic Propagation House, Riyadh, Saudi Arabia	No
35	www.muftionline.co.za	Mufti Zakaria Makada, South Africa	No
36	www.islamicity.org	Not available	Yes
37	www.islamquest.net	Ayatollah Hadavi Tehrani. Porch of Wisdom Cultural Institution, Iran	Yes
38	www.themodernreligion.com	Idris Palmer	Yes
39	www.askthesheikh.com	Not available	Yes

Table 2: Summary of the Fatwas available from websites

No	Name of the website	Fatwa Summary	Fatwa Identifier. (Author's comment in italics)
1	www.amjaonline.org	Once brain death is confirmed medically, removing life support becomes permissible	Dr Hatem al-Haj. Fatwa ID 85853
2	www.islamweb.net	Being brain dead is not considered terminal, and a person suffering such a condition is not considered to be dead until his death is certain. The preponderant opinion in Islamweb is that it is not permissible to remove the machines from a patient just because his brain is dead	Sheikh Bin Baz. Fatwa No 322114, 88164. <i>The committee does not seem to make a distinction between coma and brain death</i>

No	Name of the website	Fatwa Summary	Fatwa Identifier. (Author's comment in italics)
3	www.dar-alifta.org	<p>1. Clinical death, known as brain-stem death or brain death is of no consequence because in Islamic law it is not considered death since some of the body organs remain alive.</p> <p>2. Physicians differed on whether brain death can be considered true death. However the majority agree that it is true death and the Egyptian Islamic Research Assembly adopted this opinion in 2009</p>	<i>The two fatwas are contradictory. There is no fatwa id/number to ascertain chronology.</i>
4	http://islamqa.info/en	It is not correct to base on this diagnosis (brain death) any of the rulings having to do with death from a shar'i point of view	Fatwa ID 230086
5	www.darulifta-deoband.com	Patients should be kept on machine as long as possible, and when the guardian of the patient is not able to bear the expenses then there is no wrong in switching off the machine. This is neither murder nor a cause leading to murder. So, in the above condition case, there is no wrong in switching off the machine. (Muntakhabat Nizamul Fatawa: 349)	Fatwa: 1173/146=B/1429.
6	https://www.muis.gov.sg	A person who is brain dead is truly and unequivocally dead. This is the scientific position of international medical communities. This definition has also been accepted by the Fatwa Committee of MUIS	

No	Name of the website	Fatwa Summary	Fatwa Identifier. (Author's comment in italics)
7	www.aboutislam.net	If the patient is diagnosed as brain dead by specialists and this is confirmed by a flat wave on the EEG (Electroencephalogram), this means that this person is considered to be dead	Dr Maher Hathout
8	www.english.shirazi.ir	Is it permissible to switch off the support system from someone who is brain-dead, and there is no hope for his recovery? A: It is not permissible	Eminent Grand Islamic Authority Ayatollah Sayid Sadiq Hussaini Shirazi, Iran
9	www.al-mawrid.org	According to the hints in the Quran, death must encompass a total loss of all bodily functions. As a lot of organs continue to function after brain death, therefore it alone cannot be defined as death	Javed Ahmad Ghamidi
10	www.islamicity.org	Brain death to be declared by reliable medical practitioner	
11	www.islamquest.net	Mixed information Ayatollah Khamenei and Ayatollah Makarem Shirazi agree to the concept of brain death but Ayatollah Sistani and Ayatollah Gulpiagani do not.	Ayatollah Hadavi Tehrani. <i>Ayatollah Makarem Shirazi's website gives a different ruling.</i>
12	www.themodernreligion.com	Can remove life support if doctor feels patient will die	
13	www.askthesheikh.com	According to Ayatollah Sistani and Ayatollah Khamenei, as long as the heart beats, it is not permissible to remove the ventilator as much as possible, because a brain-dead person is not Islamically a dead person yet.	Sheikh Mansour Leghaei

Table 3: Islamic search engines and responses received

No	Search engine	Response	Author's comment
1	www.alalgoogling.com	No	
2	www.Imhalal.com	No	Services closed
3	www.Taqwa.me	No	Cannot find server
4	www.IslamSearch.org	Yes	13 hits. Nothing other than the currently available information.
5	www.2muslims.com	No	
6	www.sunnasearch.co.uk	No	
7	www.IslamiCity.org	Yes	564 hits. Opinion pieces and discussions. No fatwa
8	www.4arabs.com	No	Domain not active
9	www.intoislam.com	No	
10	www.islamic-directory.com	Yes	1 hit. No new information
11	www.islamicfinder.org	No	
12	www.gowister.com	Yes	6490 hits. No new reference in the first 500 hits
13	www.askmualim.com	No	Not an active website
14	https://sunniengine.com	Yes	3230 hits. No new information

Table 4: Countries/ Organisations and their Brain death legalisation timelines (14, 16)

Date of legalisation	Country	Endorsed Braindeath
1964,2000	Iran	Yes
1981	Kuwait	No
1982	Saudi Arabia	Yes
1982	Libya	Yes
1983/1984	Lebanon	Yes
1985	IOMS	Yes
1986	Kuwait (Initial legislation in 1981 didnt recognise brain death	Yes
1986	IFA-OIC	Yes
1986	IFA-WML	Yes
1987	Singapore	Yes
1993	United Arab Emirates	Yes
1993	Egypt	No
1994	Oman	Yes
1994	South Africa-Majlis al-Shura al-islami	Yes
1995	South Africa- Majlis al-Ulema	No
1995	United Kingdom	Yes
1996	Indonesia	Yes
1998	Morocco	Yes
2000	Turkey	Yes
2003	IMANA	Yes
2003	Syria	Yes
2006	Malaysia	Yes
2010	Qatar	Yes
2010	Egypt	Yes

IFA- Islamic Fiqh Academy, IMANA- Islamic Medical Association of North America, IOMS- Islamic Organisation of Medical Sciences, MWL- Muslim World League. First brain death retrieval performed in Algeria in 2019. However, date of legislation couldn't be obtained

Table 5

1981: the Islamic Fiqh Academy of the Organization of the Islamic Conference examined this issue. The academy is a subsidiary of the Organization of the Islamic Conference, created by the Third Islamic Summit Conference held in Makkah al-Mukarramah, Saudi Arabia. They pronounced that brain death is an acceptable criterion for determination of death, ruling that Islamic law allows declaration of death when all vital functions of the brain irreversibly cease and the brain begins to degenerate as witnessed by specialist physicians. (17)

1986: Resolution of the Council of Islamic Jurisprudence on Resuscitation Apparatus Amman, N0.86-07-3D (23,24). death apply if there is total cessation of all cerebral functions and experienced specialized doctors have ruled that such cessation is irreversible and the brain has started to disintegrate. (25)

1987: The Islamic Fiqh Majma (Council) of the Muslim World League (MWL; Kingdom of Saudi Arabia) issued MWL stated that brain death criterion could only be applied if three competent specialist physicians agree that brain death has occurred and is irreversible. In such case, the life support could be stopped despite the fact that the heart is still pumping and respiration is still going on by the machine. But it stated that brain death is not equal to death and the Islamic legal consequences of death could be applied only after the heart stops. (17)

1989: religious approval (fatwa) was obtained by Dr. Fazel from the Supreme Religious Leader that recognized brain death. However, organ recovery from brain-dead patients for transplantation was passed in the legislature in 2000 (17, 26)

1995: Dr Sheikh Yousef Al-Qaradawi accepts brain death as equal to death (27)

1995: UK Shariah Council states Brain stem death is a proper definition of death and constitutes end of life (28)

1996: The Islamic Organization for Medical Sciences (IOMS) revisited the issue and concluded that brain stem death is an acceptable criteria.

2003: IMANA reiterates the generally accepted criteria or the diagnosis of death and clarifies the ambiguity from the prior IFA statement regarding who determines death by embracing the key role of the physician. (20)

2005: Ben Hamza recognised brain death from an Islamic perspective (19)

Table 6: Table 6 lists the prominent Islamic Scholars based on their position on brain death. (18).

Brain death not equated with death	Brain death equated with death
Sheikh Mohammed Almokhtar Alshinqeety	Dr Mohammed Na'eem Yaseen
al-Sheikh Abd al-Aziz bin Baaz	Dr Mohammed Sulaiman Al-Ashqar
Sheikh Baker Abu Zaid	Dr Ahmed Sharaf Eldin
Dr Mohammed Sa'eed	Laila Seraj Abul'ola
Ramadan Albooti	Al-Sheikh Dr. Umar Sulaiman al-Asyqar
Dr Aqeel Bin Ahmed AlOqaily	Al-Sheikh Dr. Muhammad 'Ali al-Baar
Ayatollah Sistani	Ayatollah Khamenei
Ayatollah Saafi Gulpiagani	Sheikh Yousuf Al- Qaradawi
Dr Tawfiq Alwa'ee	Sheikh Ben Hamza
Sheikh Saalih Munajjid	Ayatollah Khomeini

Albucasis (Abu al-Qasim al-Zahrawi), Renowned Muslim Surgeon of the 10th Century (By Fred Ramen, 2006)

Reviewed by Dr Mohamad Anas Nahil, *Research Fellow, University of Leeds*

Correspondence: m.a.nahil@leeds.ac.uk

The study of medicine, like mathematics and philosophy in the ancient world followed a familiar course: The Mesopotamians and Egyptians discovered a few basic principles, and then the Greeks vastly expanded this knowledge into more practical applications at the hands of the famous Hippocrates, Aristotle and Galen alongside many others.

While scientific learning was languishing in the West, it was flourishing in the East at the hands of the Muslims. As the Muslim armies swept into Syria, Muslims accessed a rich heritage of the Romans and Greek. Besides, the Muslim conquests brought them into contact with the ancient cultures of Persia and India. Indeed, Muslim scientists embarked on translating and embracing previous knowledge and further advancing them at the hands of great scientists. Amongst the well-known leaders in the field of medicine are Rhazes and Avicenna who had a direct influence on Albucasis.

This review aims to offer a better understanding of the work of Abulcasis, particularly exploring the influence he has had on modern medicine. And although the book is not necessarily the most in-depth exploration of Abulcasis' work, it is nevertheless a worthy addition on the history of Islamic medicine.

Albucasis was born in al-Zahra in 936. At the age of 25, he served as the royal physician to the court of Cordoba's caliphate al-Hakam II, and had many students. This Muslim physician was probably of Spanish, not Arabian, descent. His life's work known as '*Al-Tasrif*' was a comprehensive encyclopaedia of medicine, perhaps the greatest work of its kind written during the Middle Ages (*Al-Tasrif Liman Azija an al-Ta'lif*, usually called the '*Methods of Medicine*'). Although only the last volume of it was dedicated to surgery, it became the widely known part in the west. Like *Avicenna*, Albucasis believed that doctors should closely observe their patients. Reviving the spirit of Hippocratic medicine, he urged doctors to behave ethically towards their patients.

Almost every possible medical condition is touched upon in his book '*Al-Tasrif*'. Like *Aristotle* and *Galen*, he was not content to merely record the details he observed in humans. Instead, he also dissected animals to compare their internal organs with those of humans.

Below are some examples of the achievements of Albucasis in the different surgical fields:

Orthopaedics (bone and joints surgery): he described procedures in this area including Kocher's technique for repairing dislocated shoulder. He also described the technique of patellectomy, or the removal of the knee bone in cases when it is smashed.

Dentistry: he described many dental problems such as misaligned teeth and suggested ways to correct the flaws. He also demonstrated techniques to re-implant teeth which had been knocked out of the mouth and described how to make artificial dentures of the bones of animals.

Plastic surgery: he used ink to mark incision sites and described breast reduction surgery

Gastrointestinal surgery: he operated successfully on the bowels. He also developed the innovative use of silk and catgut to stitch wounds shut.

Neurosurgery: He described many conditions caused by head and spinal injuries. He developed special tools for drilling into the skull without damaging the brain. He also demonstrated techniques to heal spinal fractures.

Ear, nose and throat surgery (ENT): He described methods to heal fractures of the nasal bones. He also performed delicate surgeries on the ear.

In addition to the many surgical techniques he described, Albucasis developed a variety of surgical instruments, some of which remain in use today. These include tongue depressors, tooth extractors, obstetric devices (including forceps), a hook to remove nasal polyps, syringes to perform enemas and various surgical knives and saws. He also perfected the use of cauterisation to seal blood vessels, as well as, the technique of ligation or tying off major blood vessels to prevent bleeding.

Albucasis was very careful in his advice to those who wanted to become surgeons. He demanded that they complete their studies of general medicine before they tried to perform surgery. This plan of learning is remarkably similar to our own modern system of training doctors of learning general medicine before specialising in any area.

When Toledo city was captured by Alfonso the Brave in 1085, Gerard of Cremona arrived there and embarked on translating many of the major Arabic scientific books, including Albucasis's *Al-Tasrif*. From Toledo, *Al-Tasrif* spread throughout Europe. The great French surgeon Guy de Chauliac (1300-1368) quoted Albucasis more than 200 times in his great surgical book, the *Great Surgery* (*Chirurgia Magna*), which was used as a medical textbook for more than 300 years.

In 1471, *Al-Tasrif* was printed in Venice, and quickly became a standard medical text. As late as the 16th century, another great French surgeon, Jacques Dalechamps (1513-1588) was quoting *Al-Tasrif*.

Albucasis' title of 'the chief of all surgeons' was well earned, as Italian translator Pietro Argallata called him in the 15th Century.

As the glory of Albucasis's work increased, that of al-Andalus declined. More cities fell at the hands of the Christian kingdoms in the north. In 1492, Granada, the last Muslim kingdom in Spain, fell at the hands of Ferdinand II. This ended the 700-year existence of Al-Andalus with its unique culture which incorporated the best of three worlds, the Muslim world, the ancient Greek world and the new world of Europe.

Finally, it would have been beneficial to have the author expand more on the instruments Albucasis pioneered and his rationale for doing so as well as the surgical subspecialties mentioned above. Ultimately, the book complements other textbooks on Islamic medical history well, especially on Albucasis himself and it would be good to see more scholarship linking the work of Albucasis' teachings to modern surgical specialties.

COVID-19: The importance of clear leadership

Mohammed Wajid Akhter,
GP London,
BIMA Vice President & LifeSavers Project Lead

Correspondence: muhammad.wajid.akhter@gmail.com

In a pandemic, the greatest determinant of how many people will be affected and how a society will emerge from it is how effectively the leaders are able to lead.

If they are constantly overwhelmed, if they are unable to get the various specialists around the table and to work together as a team, if they are unable to communicate with the public - then the impact of the virus will be multiplied by the impact of the after effects and things will go from bad to worse.

This is why BIMA (the British Islamic Medical Association) exists. To provide a platform, an umbrella body and a vehicle to bring the Muslim healthcare community together and to provide clear and effective leadership.

We've been attempting to do this for a number of years but it was never as important or as necessary in February-March of this year.

We realised that the advice from central authorities may be too late, too generic and too poorly communicated to be effective. However, we also realised our own limitations and not going beyond our competency. Hence we worked closely with the Muslim Council of Britain (MCB), the largest umbrella body for Muslim organisations in the UK as well as other organisations ranging from mental health charities like Muslim Youth Helpline (MYH) to charity umbrella organisation like the Muslim Community Forum (MCF).

We also identified with [our partners](#) that the crisis will have different impacts that will come to the fore at different times. In the initial wave there will be a healthcare impact and burial impact too, but these will be

followed by a mental health impact during lockdown and then a logistical impact for reopening mosques and eventually by a serious economic impact too.

Each of these needed teams working on them from the start that were lead by specialists in the field. This was instituted with the MCB using their organisational and diplomatic skills to help ensure that each group was functional and fit for purpose.

Working along with our communications team and under the guidance of the MCB publicity team, we came up with consistent branding and imaging for our communications so that we could cut through the noise of social media. This was useful for a variety of reasons, but it really allowed us to develop a system of concise, jargon free messaging to communicate with the Muslim public. Where others were relying on long documents or WhatsApp messages that may be lost in the daily deluge on the world's most popular instant messaging app, we had developed a system that avoided these marketing pitfalls.

There have been many setbacks along the way, but what we have done along with our partners is provide clear, consistent and careful leadership at a time of crisis. Just as the crisis is not over, the need for us to continue providing that leadership is not over. Just as the crisis evolves, our response must do. Just as there can be no room for individuals making decisions that benefit them but jeopardise the collective, similarly we should call against disunity that hampers the ability for us to provide clear and effective leadership to our community.

To see a non-comprehensive list of activities that took place please [click here](#).

A jurisprudential opinion on 'deemed consent' with respect to the Organ Donation Act 2019

Dr Abdullah bin Yusuf al-Judai,
Former President of the European Council for Fatwa and Research,
Shariah Adviser at Leeds Grand Mosque, Leeds, UK

Praise be to Allah. I bear witness that there is no God worthy of worship but The One God and I bear witness that Muhammad (peace and blessings be upon him) is His servant and messenger.

I have been asked to offer my opinion (*fatwa*) on the new law concerning organ donation (passed on 20th May 2020). The donation of a body-part to benefit another after one's death is permissible, and in line with the broader principles of the Shariah. Studies on this matter have been published, and several fatwas have been issued by various juristic (*fiqh*) councils. These councils have agreed on the permissibility of organ donation as per the following: Resolution 1/8 of the Islamic Fiqh Council (Muslim World League); Resolution 1/4 of the International Islamic Fiqh Academy (Organisation of Islamic Conference) and Resolution 2/6 of the European Council of Fatwa and Research.

There is no reason that prevents a living person from donating any part of their body as long as no harm befalls the donor. One example of this includes donating one kidney as long as the other is functioning well. If this donation is permissible while one is still alive, then the donation of organs after death according to one's last will and testament bears no doubt. The dead will no longer physically benefit from these organs as the body decomposes. It is worth mentioning that the donation of a dead person's organs has no bearing on the dignity of the dead as some may claim, as long as it is what the individual consented to before their death. Following on from this, a law has only very recently come into force in England (May 2020), in which everyone is deemed to be a donor unless they "opt-out" by declaring their refusal before their death. The law also grants the deceased's family the right to object to certain parts being removed from the body.

From an Islamic juristic viewpoint, abiding by this law is in concordance with the Shariah's rulings, not least because the person can opt-out of it during the course of their lifetime. When an individual declines to exercise this right (one that is in operation throughout their life), it becomes their presumed consent that their organs may be taken for the benefit of another after the former's death. One of the major maxims of Islamic jurisprudence is 'that which is customary in any society is tantamount to a legal obligation'.

Finally, while the law grants individuals the freedom to opt-out while alive, I would still urge fellow Muslims in the UK not to opt-out and to instead become future donors by allowing the law to take its due course. Benefitting another person through the donation of an organ is considered a good deed that the Shariah encourages, an act of benevolence (*ihsan*), and the best people are those who are most helpful of others. Imam Muslim narrated (no. 2199) that the Prophet (peace and blessings be upon him) said, "Whoever is able to benefit his brother; then he should do so." Organ donation is considered a form of perpetual charity (*sadaqah jariyah*). Imam Muslim also narrated (no. 1631) that the Prophet (peace and blessings be upon him) said, "When a person dies, their deeds come to an end except in three cases: a perpetual charity, knowledge from which benefit is gained, or a righteous child who prays for them."

We ask Allah to guide us towards the right path according to what He Loves and Permits. All gratitude be to the Almighty.

8th Dhul Qu'da 1441 H
30th June 2020

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

رؤية فقهية في موضوع

اعتبار الإنسان متبرعاً بأعضاء بدنه بعد موته حسب القانون البريطاني

الحمد لله رب العالمين، وأشهد أن لا إله إلا الله وحده لا شريك له، وأشهد أن محمداً عبده ورسوله، صلى الله عليه وسلم تسليماً كثيراً. أما بعد..

فإن تبرع الإنسان بأعضاء بدنه الصالحة لمنفعة غيره بعد وفاته عمل مشروع بحسب ما دلت عليه أصول الشريعة الإسلامية، وقد نُشرت فيه دراسات وبحوث، وإليه انتهت قرارات فقهية مجمعية، اتفقت جميعها على جواز ذلك على بعض تفصيل (يُنظر: قرار المجمع الفقهي الإسلامي التابع لرابطة العالم الإسلامي، رقم 8/1؛ وقرار مجمع الفقه الإسلامي المنبثق عن منظمة المؤتمر الإسلامي، رقم 4/1؛ وقرار المجلس الأوروبي للإفتاء والبحوث، رقم: 6/2).

وحيث لا يوجد شرعاً ما يمنع إنساناً أن يتبرع بشيء من أعضاء بدنه لمنفعة غيره في حياته، إذا كان ذلك التبرع لا يضر به، كما هو الشأن في تبرع شخص لآخر بإحدى كُليتيه السليمتين، فإذا كان كذلك في الحياة فهو في شأن التبرع بالأعضاء الصالحة بعد الموت بناء على وصية يوصي بها قبل موته، أولى بالجواز؛ إذ ليس للميت انتفاع بتلك الأعضاء لنفسه وقد مات، بل مصير البدن كله إلى زوال، وليُعلم أن ذلك الانتفاع ليس فيه اعتداء على حرمة الميت كما قد يدعيه بعض الناس، بل هو جارٍ على مقصوده ورغبته في حياته.

وبناء على ما تقدم، فإن ما تم تقنينه وإعلانه مؤخراً في المملكة المتحدة (مايو 2020) أن كل شخص يموت يُصبح الانتفاع بأعضاء بدنه الصالحة لمعالجة غيره من المحتاجين إليها مشروعاً بحكم القانون، ما لم يصرح ذلك الشخص في حياته بانسحابه من ذلك، كما أعطى القانون مجالاً لذويه من بعده أن يمنعوا أخذ شيء من أعضائه، فالحكم من جهة فقهية إسلامية: أن لزوم هذا الحكم القانوني متفق مع أحكام الشريعة؛ لأن حق الانسحاب كان ساريًا في حياة ذلك المتوفى، فحيث لم يستعمل ذلك الحق فتركُّه له إقرارٌ وقبول للتصرف من بعده بحسب حكم القانون، والأصل الفقهي يقول: "المعروف عُرفاً كالمشروط شرطاً".

ومع حرية المسلم في اختياره الانسحاب بحسب ما منحه القانون، فإن الذي أنصح به عموم المسلمين في المملكة المتحدة هو عدم الانسحاب من ذلك الالتزام، وترك القانون يأخذ مجراه في هذه القضية؛ ذلك أن انتفاع إنسان آخر بعضو فانت منفعته عليك بسبب الموت، يندرج في جملة صنائع المعروف التي حثت عليها الشريعة، وهو من الإحسان، وخير الناس أنفعهم للناس، وقد قال النبي صلى الله عليه وسلم: "من استطاع منكم أن ينفع أخاه فليفعل" [مسلم: 2199]، كما أنه من قبيل الصدقة الجارية، وقد قال النبي صلى الله عليه وسلم: "إذا مات الإنسان انقطع عنه عمله إلا من ثلاثة: إلا من صدقة جارية، أو علم ينتفع به، أو ولد صالح يدعو له" [مسلم: 1631].

نسأل الله أن يوفقنا لما يحب ويرضى، والحمد لله رب العالمين.

د. عبد الله بن يوسف الجديع

الرئيس السابق للمجلس الأوروبي للإفتاء والبحوث
المستشار الشرعي لمسجد ليدز الكبير - مدينة ليدز - المملكة المتحدة

في 8 ذي القعدة 1441هـ

30 يونيو 2020م

Jumu'ah Khutbah on Blood and Organ

Mufti Usman Maravia,

ESRC Centre for Corpus Approaches to Social Science (CASS) Bailrigg House, Lancaster University,

Correspondence: u.maravia@lancaster.ac.uk

Part one of the Jumu'ah Khutbah:

All praise to Allah, we praise Him, and we ask Him for guidance and forgiveness. We seek protection in Allah from the malice of our own souls, and from the evil of our actions. Whom Allah guides, no one can lead astray, and whom He leaves astray, no one can lead back to the right path. I bear witness that there is no other deity but Allah, by Himself, no associate to Him, and I bear witness that Muhammad is His servant and Messenger.

﴿يَا أَيُّهَا الَّذِينَ آمَنُوا اتَّقُوا اللَّهَ وَقُولُوا قَوْلًا سَدِيدًا يُصْلِحْ لَكُمْ أَعْمَالَكُمْ وَيَغْفِرْ لَكُمْ ذُنُوبَكُمْ وَمَنْ يُطِيعِ اللَّهَ وَرَسُولَهُ فَقَدْ فَازَ فَوْزًا عَظِيمًا﴾

{Believers, be mindful of Allah, speak in a direct fashion and to good purpose, and He will put your deeds right for you and forgive you your sins. Whoever obeys God and His Messenger will truly achieve a great triumph} [1]

Thereafter, all British Muslims! Among the greatest blessings Allah, exalted be He, the All-Glorious, bestows upon man, blessings that are worth remembering and being grateful for are the blessings of health and well-being. No one is bestowed by anything greater than well-being. The Messenger of Allah ﷺ indeed expressed the importance of health and well-being when he described them as being from the three pillars required in this world that bring joy to all humans. The first pillar is health and well-being, the second pillar is safety and security; and the third pillar is having a livelihood. When Allah, the Most Exalted, the All-Glorious, has granted you any of these three blessings, then know that you are indeed fortunate.

﴿مَنْ أَصْبَحَ مِنْكُمْ آمِنًا فِي سِرْبِهِ مُعَافَى فِي جَسَدِهِ عِنْدَهُ قُوَّةٌ يَوْمَهُ فَكَأَنَّمَا جِزَتْ لَهُ الدُّنْيَا بِحَدَافِيرِهَا﴾

The Messenger of Allah ﷺ said: “Whoever wakes to a safe family and home, sound of health, and possesses sufficient provisions, then it is as if he has been granted the world in its entirety” [2][3]. Now, Allah, the Most Exalted, the All-Glorious, has indeed granted us the world in its entirety. Alhamdulillah!

Islam teaches that when one is afflicted physically, he should not simply await death to take over. Rather, Islam instructs us to endeavour in seeking a medical cure. Take the example of Job, upon whom be peace, who was afflicted with what is believed to be an extremely severe dermatological disease [4]. Still, Job stood supplicating to his lord. The Holy Qur'an describes this:

﴿وَأَيُّوبَ إِذْ نَادَى رَبَّهُ أَنِّي مَسَّنِيَ الضُّرُّ وَأَنْتَ أَرْحَمُ الرَّاحِمِينَ﴾

{Remember Job, when he cried to his Lord, ‘Suffering has truly afflicted me, but you are the Most Merciful of the merciful’ [5]}

﴿أَرْكُضْ بِرِجْلِكَ هَذَا مُغْتَسَلٌ بَارِدٌ وَشَرَابٌ﴾

The Lord instructed him to cure himself: {‘Stamp your foot! Here is cool water for you to wash in and drink’} [6].

﴿فَاسْتَجَبْنَا لَهُ فَكَشَفْنَا مَا بِهِ مِنْ ضُرِّ﴾

Allah, the Most Exalted, the All-Glorious, says: {We answered him, removed his suffering} [7].

The Messenger of Allah ﷺ, the epitome of the trusting ones, said:

﴿إِنَّ اللَّهَ لَمْ يُنزِلْ دَاءً إِلَّا وَقَدْ أَنْزَلَ لَهُ دَوَاءً، عِلْمُهُ مَنْ عِلْمُهُ، وَجَهْلُهُ مَنْ جَهْلُهُ﴾

“Allah did not create an illness except he also created for it a cure, those with knowledge are aware, whilst those who are ignorant remain ignorant” [8]. Thus, as a matter of importance, Muslims are expected to seek cure and medical help.

Umayyah bint Qays al-Ghifariyya narrates: “I met the Messenger of Allah ﷺ along with a group of women from the tribe of Bani Ghifar. We requested: ‘O Messenger of Allah, we yearn to join you in your quest to Khayber. We will nurse the wounded and aid the Muslims as best we can’. The Messenger of Allah ﷺ replied: ‘Proceed with

the blessings of Allah'. Upon gaining victory at Khaiber, the Messenger of Allah, with his own blessed hands honoured me with this necklace you see around my neck. By Allah, this necklace will never part from me. The necklace is said to have remained around her neck even when she died and Umayyah bint Qays had expressed her wish to be buried with it [9].

This incident was in relation to cases that are treatable with medication, however, what about cases that are not treatable with medication? But require human organs? Unfortunately, one cannot simply find in the community who will offer such charity. The concept of *sadaqa* for us is a matter of faith whereby if one intends to donate an organ by way of *sadaqa* then a great recompense can be gained from Allah.

One asks: how many times did you donate anything this past year? Surprisingly, you may hear some respond, 'I have not donated once in my entire life', 'But why not give in charity?' whereas the Prophet ﷺ said,

«أَحَبُّ النَّاسِ إِلَى اللَّهِ أَنْفَعُهُمْ لِلنَّاسِ، وَأَحَبُّ الْأَعْمَالِ إِلَى اللَّهِ سُرُورٌ تُدْخِلُهُ عَلَى مُسْلِمٍ، أَوْ تَكْشِفُ عَنْهُ كَرْبَةً»

"The most beloved of people to Allah are those who are most beneficial to others, and the dearest of acts to Allah is joy that is brought to fellow Muslims, or acts that remove distress [10][11]

Note that the Prophet ﷺ did not simply say beneficial to Muslims but beneficial to all people.

And take note that the sanctity of the living is greater than the sanctity of the deceased [12]. Allah, exalted be He, the All-Glorious, says:

﴿وَمَنْ أَحْيَاهَا فَكَأَنَّمَا أَحْيَا النَّاسَ جَمِيعًا﴾

{If any saves a life, it is as if he saves the lives of all mankind} [13]. From this *aya*, we can formulate an important maxim regarding healthcare law that is rooted in the Qur'an. A single individual can potentially save nine lives: through his two corneas which can benefit two people; he has two lungs to benefit another two people; he also has two kidneys to benefit two more people; and he has a heart, a liver, and a pancreas; these organs can save a life each, ultimately, being able to potentially save nine lives. Moreover, donations from a single body can benefit 50 lives if we donate skin, bone marrow, and other tissues [14].

Then why do we find Muslims acting miserly both whilst alive and even after death? the Prophet ﷺ said,

«مَثَلُ الْمُؤْمِنِينَ فِي تَوَادُّهِمْ، وَتَرَاحُمِهِمْ، وَتَعَاطُفِهِمْ مَثَلُ الْجَسَدِ إِذَا اشْتَكَى مِنْهُ عُضْوٌ تَدَاعَى لَهُ سَائِرُ الْجَسَدِ بِالسَّهْرِ وَالْحُمَى»

"The parable of the believers in their affection, mercy, and compassion for each other is that of a body. When any organ aches, the whole body reacts with sleeplessness and fever" [15][16].

The Prophet ﷺ also said:

«مَنْ لَمْ يَهْتَمَّ بِأَمْرِ الْمُسْلِمِينَ وَمَنْ لَمْ يُصْبِحْ وَيُمْسِ نَاصِحًا لِعَامَّةِ الْمُسْلِمِينَ فَلَيْسَ مِنْهُمْ»

"Whoever is not concerned about the welfare of the Muslims and does not advise well the Muslim public, he is not one of them" [17][18].

Therefore, transparency between Islamic legal experts and leading medical experts must continue for the welfare of the Muslim ummah [19].

Abu Saeed al-Khudri reiterated the words of the Prophet ﷺ who said,

«مَنْ كَانَ مَعَهُ فَضْلٌ ظَهَرَ، فَلْيُعِدْ بِهِ عَلَى مَنْ لَا ظَهَرَ لَهُ، وَمَنْ كَانَ لَهُ فَضْلٌ مِنْ زَادٍ، فَلْيُعِدْ بِهِ عَلَى مَنْ لَا زَادَ لَهُ»

"He who has an extra camel, let him give it to him one who has none; he who has a surplus of food, let him give it to him who has no food." Abu Saeed said, "The Prophet ﷺ repeatedly instructed sharing various kinds of wealth that we felt that none of us has a right to any surplus" [20].

Likewise, the Messenger of Allah ﷺ used to supplicate:

﴿وَمَعْنًا بِأَسْمَاعِنَا وَأَبْصَارِنَا وَقُوَّتِنَا مَا أَحْيَيْتَنَا، وَاجْعَلْهُ الْوَارِثَ مِنَّا﴾

"O Allah, bless our hearing, our seeing, and our strength for as long as we live and let it be inherited from us" [21][22]. Allah has the power to benefit people through you as a living donor and through you as a deceased donor since the human body can be suitable for transplantation purposes. We beseech Allah, the Almighty, to benefit people through us whilst we are alive and continue to benefit them after we pass.

We beseech Allah, the Almighty, to bring relief to all those who are afflicted. May Allah, the Almighty, send

His peace upon the Prophet and upon his progeny, and those who follow them righteously until the day of judgement.

Part two of Jumu'ah Khutbah:

All praise to Allah, we praise Him, and we ask Him for guidance and forgiveness. We seek protection in Allah from the malice of our own souls, and from the evil of our actions. Whom Allah guides, no one can lead astray, and whom He leaves astray, no one can lead back to the right path. I bear witness that there is no other deity but Allah, by Himself, no associate to Him, and I bear witness that Muhammad is His servant and Messenger.

Be aware that Allah, the Most Exalted, the All-Glorious, commands you with an injunction of an act he initiates to conduct Himself.

﴿إِنَّ اللَّهَ وَمَلَائِكَتَهُ يُصَلُّونَ عَلَى النَّبِيِّ يَا أَيُّهَا الَّذِينَ آمَنُوا صَلُّوا عَلَيْهِ وَسَلِّمُوا تَسْلِيمًا﴾

{God and His angels bless the Prophet— so, you who believe, bless him too and send him greetings of peace} [23]. O Allah! bless the Prophet, Muhamad, and send him greetings of peace and upon his progeny and rightly-guided successors; and to all those who follow them until the day of judgement.

As we are discussing healthcare and well-being, we must not forget our brothers and sisters who in this very moment, lie on hospital beds, waiting for a cure; some of whom await an organ; some await blood and some hope for medication and yet others continue to wait indefinitely. We beseech Allah, the Most Exalted, the All-Glorious, to grant all of them *shifa*.

The Messenger of Allah ﷺ said,

﴿إِنَّ اللَّهَ عَزَّ وَجَلَّ يَقُولُ يَوْمَ الْقِيَامَةِ: يَا ابْنَ آدَمَ مَرَضْتُ فَلَمْ تَعُدَّنِي، قَالَ: يَا رَبِّ كَيْفَ أَعُوذُكَ؟ وَأَنْتَ رَبُّ الْعَالَمِينَ؟ قَالَ: أَمَا عَلِمْتَ أَنَّ عَبْدِي فَلَانًا مَرَضَ فَلَمْ تَعُدَّهُ، أَمَا عَلِمْتَ أَنَّكَ لَوْ عُدْتَهُ لَوَجَدْتَنِي عِنْدَهُ؟﴾

“Allah Almighty will say on the Day of Resurrection: O son of Adam, I was sick but you did not visit Me. He will say: My Lord, how can I visit you when You are the Lord of the worlds? Allah will say: Did you not know that My servant was sick and you did not visit him, and had you visited him, you would have found Me with him?” [24][25]

The Messenger of Allah ﷺ also said:

﴿حَقُّ الْمُسْلِمِ عَلَى الْمُسْلِمِ خَمْسٌ: رَدُّ السَّلَامِ، وَعِيَادَةُ الْمَرِيضِ، وَاتِّبَاعُ الْجَنَائِزِ، وَإِجَابَةُ الدَّعْوَةِ، وَتَسْمِيَةُ الْعَاطِسِ﴾

“There are five rights of one Muslim over another: 1) returning the greeting after salam; 2) visiting the sick; 3) attending the funeral; 4) accepting his invitation; and 5) and supplicating for him when he sneezes” [26][27]. The Messenger of Allah ﷺ also said:

﴿إِذَا مَاتَ الْإِنْسَانُ انْقَطَعَ عَنْهُ عَمَلُهُ إِلَّا مِنْ ثَلَاثَةٍ: إِلَّا مِنْ صَدَقَةٍ جَارِيَةٍ، أَوْ عِلْمٍ يُنْتَفَعُ بِهِ، أَوْ وَلَدٍ صَالِحٍ يَدْعُو لَهُ﴾

“When a person dies, his deeds end but three things continue: 1) ongoing charity, 2) knowledge which people benefit from, and 3) a righteous child who prays for him” [28][29]. Likewise, an organ that is donated after death from which a patient can benefit is also form of charity, rather *sadaqa jariya*, which according to some jurists is the greatest form of charity [30].

O Allah! Lord of all people, remove the distress and heal us, for you are the healer, there is no cure except what you cure, a cure that ends all diseases. O Lord, harm has afflicted the people yet you are the Most Merciful. O Allah! hasten the cure for us and them.

O Allah! forgive all the believers; the living among them and the deceased. Pardon us, forgive us, and show us mercy.

O Allah, we seek refuge in you from all temptation; that which is apparent and that which is subtle.

O Allah, in all places, help our weak brothers and family members.

O Allah, help the living, accept our martyrs, and heal the wounded.

O Allah, rectify the situation of the believers in all regions, draw our hearts closer together, guide us to the path of peace, and take us away from the darkness and into the light.

﴿إِنَّ اللَّهَ يَأْمُرُ بِالْعَدْلِ وَالْإِحْسَانِ وَإِيتَاءِ ذِي الْقُرْبَى وَيَنْهَى عَنِ الْفَحْشَاءِ وَالْمُنْكَرِ وَالْبَغْيِ يَعِظُكُمْ لَعَلَّكُمْ تَذَكَّرُونَ﴾

{God commands justice, doing good, and generosity towards relatives and He forbids what is shameful, blameworthy, and oppressive. He teaches you, so that you may take heed} [31].

Remember Allah, and He will remember you, be grateful to Him for the blessings bestowed upon you and He will increase them. The remembrance of Allah is the greatest act and Allah knows all well all your deeds.

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