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JBIMA Editorial

Dr Sharif Kaf Al-Ghazal, Editor in Chief

Assalamo Alaikom

The recent junior doctors' strike has been on everyone's minds recently and coupled with the industrial action taken by nurses has highlighted the precarious situation many healthcare professionals are in. And whilst the decision to strike is never an easy one, it is understandable and demands for better working conditions, fairer contracts, and most importantly better patient safety must be heard.

BIMA is heavily involved in advocacy work, with the work done on promoting the Covid vaccine campaign to mosques and the Muslim community and highlighting the positives of organ donation just being a couple of examples of this in recent months. This journal regularly asks for papers detailing advocacy work being done by healthcare professionals so it goes without saying that we defend the right of BIMA's members to advocate for their rights.

As doctors, patient safety is our raison d'etre. It is our main purpose and mission statement. We cannot deliver effective healthcare to patients if the surrounding environment is not conducive to patient safety, and genuine concerns over the proposed changes to junior doctors' contracts which compromise their ability to provide safe and quality care to those who need it. The oft quoted saying "you can't pour from an empty cup" is relevant here. If doctors are exhausted and constantly fire fighting on the wards with rest between shifts being short in addition to real-term pay cuts, their predicament is clear to see.

The industrial action has also highlighted the ongoing issue of underfunding and understaffing within the NHS. The NHS has long faced challenges in terms of funding and staffing, with reports of overcrowded hospitals, long waiting times, and burnout among healthcare workers. Junior doctors, as frontline healthcare professionals, are acutely aware of these challenges, as they often work in overburdened hospitals with inadequate resources. Advocating for increased funding and staffing levels to ensure that the NHS can continue to provide high-quality care to patients in a sustainable manner is a worthy cause.

Finally, I would also like to bring to your attention BIMA's Annual National Conference which will be taking place on Saturday 8th July. The theme is "Unity in Community – Winning as One". The conference will explore a wide range of topics and themes and sessions will seek to bring healthcare professionals together. It is not to be missed, and the events team have been working hard to organize it with academic, clinical, wellness and spirituality and personal development sessions being hosted. It will be a great opportunity to listen to leading experts in various medical fields and reflect on their experiences as well as a chance for members to network and get to know one another. The poster presentation session will be particularly useful for the medical students who would like to showcase their work. Good and suitable posters, will inshaAllah be published in this journal.

Very best wishes,

Wassalam.

Dr Sharif Kaf Al-Ghazal
JBIMA, Editor in Chief

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Ethics

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Is There a Case for British Muslims to be Exempted from the New Opt-Out Organ Donation Law?

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Abstract

Organ donation and transplantation medicine has posed challenging ethical problems ever since the first successful human to human heart transplant was performed in December 1967. In an effort to solve the conundrum of obtaining healthy living organs from dead bodies, the medical profession introduced a new understanding of death in 1968, then in the 1990s a new protocol for declaring death in dying patients was introduced and more recently an opt-out system for end-of-life organ donation has been enacted into law in Great Britain. Under this new opt-out system[1], informed consent is not required, consent for organ donation is presumed (deemed) for adults unless belonging to an exempted group.

This paper challenges the morality of presumed (deemed) consent imposed on British Muslims, the majority of whom do not support deceased organ donation[2]. The author puts forward an argument that British Muslims should be exempted from the new organ donation opt-out law on religious grounds and puts forward some ideas which could be used to accommodate Islamic beliefs in end-of-life organ donation amongst British Muslims.

Introduction

Organ transplantation has been a real success story of modern medicine. It undoubtedly improves and saves the lives of thousands of people every year. But there is a worldwide shortage of organ donors. No religion formally forbids organ donation or receipt of organs from the living. However, deceased organ donation is discouraged or even forbidden by some religious authorities. And some ethicists consider the practice to be morally flawed[3,4]on three main accounts: the organ donors are not truly dead, the potential organ donors are not told the whole truth, and the organs are removed without an informed consent in place.

These ethical objections have been raised since the world's first successful human to human heart transplant was performed on 3rdDecember, 1967, in South Africa. As the heart transplant surgeon Christiaan Bernard came out of the operating theatre after having performed the operation he was met by the local media who asked him if the donor was dead when he removed her heart[5].

In the first heart transplant performed in Israel at the Beilinson Medical Center in 1968, no consent was obtained and the donor's family was not even informed[6]. The source of the donor heart was hidden by the hospital. Only after applying to the health minister, demanding full disclosure, did the family discover the truth.

Only months after the first successful heart transplant the concept of brain death was introduced, and this facilitated the availability of suitable organs for transplantation. The brain death concept redefines what it means to be dead by declaring individuals with irreversible coma and loss of capacity to breathe as dead even though they may not have a single organ in their bodies which is dead. Brain death is a condition *sine qua non* for the transplantation

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of viable organs such as the heart. Indeed, the main reason for introducing the concept of brain death was to increase the number of organs available for transplantation[7].The brain death concept has undergone several ad hoc revisions designed to protect it from empirical falsification, but it still remains controversial[8,9].
In the 1990s, a new protocol was introduced to increase the supply of organs for transplantation to meet the high demand.[10]This new protocol is called donation after controlled circulatory (or cardiac) death, DCD for short[11].The guidelines for DCD were published in 2008 in the UK[12].Even this did not solve the shortage of organ for transplantation so further intervention was needed.
The latest intervention in Great Britain (England, Scotland and Wales) involves switching from an opt-in system to an opt-out system for deceased organ donation, thereby removing the need for expressed consent. The next step to increase organ donation numbers may be legalisation of organ donation euthanasia[13,14] as its social and ethical acceptance increases.

What is Consent?

In a free, democratic society, an individual has the right of self-determination, the freedom to do with their body as he or she wishes. From a religious perspective, there are obviously some limitations to this freedom. This right that an individual has over his or her body prohibits others from interfering with the body without the individual's consent. So this right is by default negative; it is like a barrier which protects the right to a private domain. This barrier can only be legitimately crossed by a positive authorisation which we call consent. This consent then allows access to the private domain for a specific purpose only, such as a particular specified surgical procedure or medical examination.
The need for consent before any medical intervention is firmly embedded in modern healthcare. Doctors have an ethical obligation to respect patients' autonomy – that is, their right to be involved in decisions that affect them. Consent must be given voluntarily by an appropriately informed patient who has the capacity to exercise a choice.
Consent is not an intention in the mind or the heart but a public declaration of intention, either verbal or in writing. Consent is a voluntary declaration. So, can consent be presumed?

What is Presumed (Deemed) Consent?

Consent is a legal requirement for removal of organs or tissues under the Human Tissue Act 2004 (HTA)[15].
Under the new Deemed Consent Act (2019)[1,16]every adult is deemed to have consented to have their organ removed for transplantation unless the individual has registered to opt-out or a person who stood in a qualifying relationship to the person concerned immediately before death provides information that would lead a reasonable person to conclude that the person concerned would not have consented.
A presumed (deemed) consent policy denies organ donors the same ethical safeguards of informed consent that define advance decision making in other areas of medicine[17].

Presumed Consent is Not Informed Consent

The UK General Medical Council's guidelines on consent[18] state that there should be exchange of relevant information specific to the individual patient and that all patients have the right to be given the information they need to make a decision and the time and support they need to understand it.
To "presume" by default that we (doctors) have "consent" to remove organs from a deceased person because there is no prior statement from him/her against such an action cannot be said to meet the universal criteria for a valid consent as understood by the medical profession nor the HTA's own definition of a valid consent[15](page 48). Presumed consent is not actual informed consent[19].
Furthermore, removing organs from someone who has not given expressed consent is more akin to taking organs rather than donating organs.

Justifying Presumed Consent for Organ Donation

Presumed (deemed) consent can be morally justified in a secular society[20]. An argument can be made that it should be the duty of every citizen to donate his or her organs on death. Not doing so is morally wrong because the lack of organ availability leads to unnecessary deaths. Furthermore, surveys have shown that the majority of the UK public support organ donation[21]. From a utilitarian perspective, the adoption of presumed consent makes considerable sense. People hold their organs in stewardship for society, and when they have had their full benefit from the organs, it is time to pass the organs onto other individuals in society who can continue to benefit. In this way, presumed consent provides the greatest good for the greatest number of people by supposedly harming no one and benefiting many.

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While presumed consent for organ donation can be justified in Western bioethics based largely on human reasoning, the same does not apply to Islamic bioethics which are based on Islamic law.

Are Organ Donors Actually Dead?

"Are organ donors actually dead?"Simply put, "No!"[22]
The criterion of brain death does not meet any acceptable concept of death[23].There have been several cases reported of some reversible brainstem function in patients declared brain dead[24,25,26,27,28].

In the UK, there are just over 6,000 individuals waiting for an organ transplantation and about 600,000 people die every year. Based on these figures there should be no shortage of deceased organs. The reality is that solid organs from truly dead people are not suitable for transplantation, because their organs are dead. Only organs from living individuals are suitable. This is sufficient evidence that organ donors are not actually dead.

In current medical practice in the UK, organ donation is of two types: organ donation after brain death (DBD) and organ donation after controlled circulatory death (DCD)[29].Declaration of death, both for DBD and DCD, takes place in an intensive care unit setting. In both DBD and DCD, the donors are not truly dead[30,31,32,33,34].

Some ICU clinicians and peri-operative nurses have objected to participating in organ procurement because it is against their conscience.[35,36]

Mufti Butt, a UK based Islamic scholar, in his detailed fatwa[37] commissioned by the NHS (UK), concurs that from an Islamic perspective neither DBD nor DCD fulfil the criteria of death[38].The fatwa was released a year before the new opt-out law was introduced in England in 2020. Unfortunately, the crucial message was not clearly communicated in the fatwa (which is 111 pages long) nor in the fatwa summary. Much of the media along with some individuals and organisations involved with promoting organ donation completely misunderstood the fatwa[39], thinking the fatwa gave the UK Muslims the green light for deceased organ donation. In reality, the fatwa approved deceased organ donation in principle only. The fatwa did not consider organ donation as currently practiced in the UK to be permissible because Butt does not consider the donors to be Islamically dead.

Does the Public Have the Right to the Whole Truth?

Telling the truth in a transparent manner is an established principle of good ethics[40] and is particularly important where information is communicated by Muslims in a mosque. Disclosure of all facts is essential for informed consent[17]. However, the whole truth about what organ donation entails is often kept from the public[4,40,41] because of the possible consequences, on the assumption that revealing the whole truth may lead to refusal to donate organs. The public is provided with educational material that encourages donor registration without mentioning the possible negatives consequences of organ donation[35].
The priority of the organ donation education programs aimed at the UK Muslim population has been to change negative views towards organ donation with the objective of improving organ donation rates by increasing awareness of the societal needs and religious permissibility. Initial data suggests that some of these programs achieved their desired objective[42]. Although in the past such unidirectional religiously-oriented interventions in Muslim communities have proven to be ineffective[43].

Maintaining public trust requires not only that doctors are loyal to their patients, but that their actions be entirely above suspicion in this regard[44]. Public mistrust plays a significant role in limiting the number of organ donations.
If the whole truth is not revealed then presumed (deemed) consent is not only morally objectionable, it is not a valid informed consent.

A Moral Dilemma for Muslims

On the principle of reciprocity if a Muslim is willing to receive an organ he should be willing to donate his organs.
However, if one does not accept brain death and controlled circulatory death as actual death then "deceased" organ donors are not actually dead; it is the removal of essential organs which is the cause of their death. This poses a huge dilemma for Muslims, and other religions[45] which share the same beliefs about death and the taking of human life.
The purpose of Islamic law is to preserve life and mind (intellect). Unfortunately, current deceased organ donation practice challenges both of these purposes. The concept of brain death as actual death makes no logical sense while the process itself involves the taking of human life. God Almighty says in the Qur'an: "And that ye slay not the life which Allah hath made sacred, save in the course of justice,"[46] and "whosoever kill a human

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being for other than manslaughter or corruption in the earth, it shall be as if he had killed all mankind,"[47].
A Muslim is also strictly forbidden to take his own life: "And do not kill yourselves,"[48].

By giving consent for "deceased" organ donation one is also giving consent to have one's life ended in the operating theatre by the removal of one's organs.

Organ Donation and Your Will

If you make a decision to donate your organs after death then that is a bequest (gift after death) which effectively becomes part of your Will from an Islamic perspective.
Muslim scholars have debated whether or not it is permissible for a Muslim to bequeath his organs[49] on the assumption that the organ donor is dead.
But in reality, because the donor is not actually dead, the donor is gifting his life rather than just gifting his organs.
While the transfer of property after death requires written consent in the presence of two adult witnesses in English law, the transfer of body organs requires no written consent and no witnesses.

A New Protocol for End-of-Life Organ Donation

Current clinical practice of organ donation already violates the dead donor rule[34,50,51]. So some medical doctors and ethicists have advocated abandoning the dead donor rule[52,53,54].
The dead donor rule is a deontic constraint that categorically prohibits causing death by organ removal. Abandoning the dead donor rule would require informed consent and it has the potential to increase the donor pool. However, abandoning the dead donor rule is unlikely to find much support amongst Muslim scholars and the Muslim public. The autonomy of the individual in Islam is not unrestricted as it may be in some Western societies, it is restricted by Islamic law[55] and, as such, a Muslim cannot choose to end his life.

The key question is: "How can organs be removed from brain dead and other Muslim patients close to end-of-life without ending their life in the process?"
Muslim patients on intensive care in whom a decision has been made to withdraw life support treatment could potentially donate one kidney and a lobe of liver[56,57] without losing their life in the process. Such patients would be given a full general anaesthetic for the procedure, so the question of feeling pain or awareness is removed, and after the surgery the patient would be brought back from the operating theatre to the intensive care unit and, later on, life support treatment could be removed as already planned, allowing the patient to die naturally.

Advantages and Disadvantages of the New Proposed Protocol for End-of-Life Organ Donation

The perceived advantages of the new protocol include:

1. Potential donors can be informed of the whole truth about the organ donation procedure.
2. As it is a living organ donation it is likely to be acceptable to all Muslim scholars.
3. Donors would be given a full general anaesthetic as for an operation on a living person, so there is no issue of perception of pain or awareness.
4. The protocol does not rely on declaration of death so the issue of whether the donor is dead or not is no longer relevant.
5. There is potential to increase organ donation rates.
6. The quality of the organs should be better than in DCD protocol and as good as DBD protocol.

The perceived disadvantages of the new protocol include:

1. Essential organs cannot be removed.
2. Details need to be worked out to see if it is feasible and if it could be implemented in practice.
3. As the patients are likely to be seriously ill there is a risk of death during organ retrieval.
4. It is likely to be more complicated and costly.

Discussion and Conclusion

Under the new organ donation opt-out law, the UK government deems every Muslim adult living in Britain to have consented to donate his or her organs for transplantation after being declared brain dead. However, survey[2] carried out in 2019 by Agroni Research Ltd on behalf of NHS BT showed that only 31% of adult Muslims surveyed said that they support organ donation. In 2020, over 50 Muslim scholars[58]based in Britain signed a statement opposing deceased organ donation. The NHS commissioned fatwa by Butt released a year before the opt-out law was rolled out did not yield the

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ruling hoped for. To presume (deem) consent in British Muslims is baseless and to impose it is morally objectionable.

Since it is clear that brain dead individuals are not actually dead[22,24,59], removing essential organs from such individuals is akin to active euthanasia[60], which is explicitly forbidden in the Islamic Faith[61,62].Removal of essential organs from a brain-dead Muslim could be seen as a violation of religious beliefs. When family members later find out the whole truth about deceased organ donation, it could lead to a feeling of lifelong guilt and resentment.

Under the European Convention on Human Rights (ECHR), Article 8[63]-the right to respect private and family life- would be violated where a person's organs are removed, after death, without consent having been obtained during their lifetime[64].

For all these reasons I believe that Muslims should be exempted from the new opt-out organ donation law and organ donation should only be undertaken with prior expressed informed consent in place.

It is important that Muslim doctors and Muslim scholars[65,66]discuss the subject openly with the aim of providing the Muslim public sufficient information to formulate an informed consent and ideally put forward unified guidance on the issue.

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Sternum – A cadaveric bone of contention in heart transplant

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Abstract

A quarter of all deaths in the UK are estimated to be caused by heart disease. Currently, the most effective solution to save patients with end-stage heart disease is a heart transplant. Due to the shortage of donors, many patients continue to remain on the waiting list, but not all are fortunate to receive a heart in time and are overcome by death. From an Islamic perspective, one reason that Muslims could be reluctant to sign up as heart donors appears to be based on an interpretation of the hadith that prohibits breaking any bone of the deceased. We argue, based on a contextualised examination of this hadith that the prohibition does not apply to heart transplants because of the way transplants are performed and regulated in the UK in our time. We also argue that during heart retrieval, 'dividing' the sternum is the more appropriate clinical verb to describe sternotomy rather than using the deleterious verb 'breaking' which has negative connotations. Our article aims to help British Muslims who are considering becoming heart donors - to potentially save lives - to make an informed decision from an Islamic perspective.

Introduction

Heart damage can occur in any individual for several reasons. Heart failurecould be caused by underlying health conditions or in some cases by genetic factors. In the UK, as of Jan2022, the number of people living with heart or circulatory (cardiovascular) diseases was estimated at 7.6 million [1]. This number is twice as many as the number of people living with cancer and Alzheimer's disease combined. Consequently, approximately more than 160,000 of all deaths each year in the UK are caused by cardiovascular diseases. This is approximately a quarter of all deaths each year [1].

The most common causes of heart failure include myocardial infarction (heart attack) and high blood pressure [2]. Another common cause is cardiomyopathy (a disease of the heart muscle), which might be inherited or caused by, for instance, a viral infection such as rubella. Heart failure can also result from abnormal heart valves, congenital heart disease, and infection (endocarditis). Despite current improvements in the treatment of cardiovascular diseases, according to the NHSBT annual report on cardiothoracic organ transplantation:

The number of patients waiting for a heart transplant has increased substantially over the past decade, from 130 in

2011 to a peak of 340 in 2020, representing a 162% increase over the 10 years [3].

The BHF also highlighted that at the end of January 2022, the number of people on the cardiac waiting list had grown to 293,500 people; nearly 2,700 more than the previous month [4].

To manage a failing heart, medicines and different forms of treatment can help. However, when the ability of the heart to function deteriorates severely, the only remaining option in a select number of patients is a heart transplant. Even in a heart transplant, there is a range of options to consider including a human heart, a porcine heart, and even an artificial heart. Xenotransplantation is when an organ is retrieved from one species and transplanted into another - as in the case of transplanting a porcine heart into the human body (xenograft) - there are, however, two major obstacles. Firstly, the human immune system is very likely to reject the animal tissue, Secondly, there is a potential risk of animal disease passing onto the recipient. As such, and as it stands, there appears to be more harm than benefit with regard to xenotransplantation. This opinion, however,couldbe reviewed based on future developments in this regard [5].

Whilst patients wait for a suitable donor heart, among the challenges that physicians face with regard to treating the heart is to prevent their patients' hearts from further deterioration. In most cases, the deterioration leads to significant breathlessness and simple acts of daily living, such as washing, dressing, or leaving the house become exceedingly difficult. The practical and optimal treatment option for such patients would be a suitable donor heart. However, to help them survive until a suitable donor heart becomes available, artificial devices to support the heart can be used. These devices can be implanted or inserted to support the failing side of the heart. A left ventricular assist device (LVAD) or a right ventricular assist device (RVAD) are used, which couldallow such patients more time [6]. LVADs are battery-powered artificial heart pumps that require recharging every 4-6 hours.

LVADs, however, are scarce, and every year, approximately only 80 patientsare given an LVAD [6]. Even though LVADs can be lifesaving, as of June 2022, no more than approximately 100 patients in the UK currently live with an LVAD. The BHF states that:

The longest that we've supported a patient for with an LVAD has been five and a half years. Nowadays, 80–85 per cent of patients are alive a year after having an LVAD fitted and 70–75 per cent after two years.

Whilst LVADs could be improved in the future and might even replace heart transplants, currently, LVADs serve only to buy more time for patients until a suitable donor heart is found. Bearing this temporary solution in mind, Anthony Clarkson, Director of Organ Donation and Transplantation at NHS Blood and Transplant, states, 'We can save more lives if more organs are donated, and we urgently need more hearts to help the hundreds of people waiting for a transplant' [7].

For a heart transplant, physicians must consider several key factors in relation to the donor. These include ensuring that consent has been obtained to retrieve the donor's heart, that the donor heart is healthy for transplantation, and that the donor has indeed died. Even after an individual consents to heart donation, the heart would only be retrieved only if it is suitable to transplant. As such, therecouldbe medical reasons for why a heart donationwouldnot proceed despite an individual having consented to be a donor.

In our discussion on this issue, we focus on the socio-theological reasons why a heart donationmightnot proceed. One of the key arguments put forward against organ donation by the former grand mufti of Pakistan Mufti Shafi [8] revolves around human dignity. In this context, we find that according to Muslim jurists, the overarching goal of Islamic law is to preserve the honour and dignity of the deceased. Muslim jurists agree on several different actions that are considered dishonourable. Fadlullah [9] lists some factors for Muslims to consider in relation to cadaver donation. Below, we discuss four major factors related to honour and dignity.

1. *Preservation of life*: To take one's own life is strictly prohibited. However, fighting for one's rights, people, or resources also brings risk to one's life. Should one die for such a cause then such an act is not viewed as suicidal by society but honourable [10]. In the case of self-defence, the intention is to ward off the antagonist and not die. Accordingly, Shariah law permits and makes exceptions to general rules when the outcome is to save a life. However, a life that is not a threat to the living cannot be taken to save another life.
2. *Human organs are not for sale*: Selling human body parts is viewed by Muslim jurists as dishonouring the human body. As such, selling kidneys, for instance, is universally prohibited by Muslim jurists.

3. *Consent*: Operating on the body of another human being without consent is not permitted [11]. According to Shariah law, a surgeon is not permitted to cut deeply or even inject another human for treatment without prior informed consent from the patient.
4. *Funerary rites*: When a human dies, a proper and timely funeral must be provided. If the deceased identified themself as a Muslim, then the deceased must be offered the Islamic funerary rites. Accordingly, Muslims are instructed to carry out a ritual wash and provide a shroud for all deceased persons and bury them without any unnecessary delay.

British Muftis are advised to consider heart donations within the British context given the rules and regulations enforced by the NHS and the Human Tissue Authority (HTA). In the UK, the sale of a heart is prohibited and would be highly unlikely because transplants are not based on such financial agreements, rather the transplantation process is regulated by the NHS and the HTA. The transplantation process in the UK is principally based on an algorithm designed to match a suitable heart recipient [12]. The identity of the heart donor is kept anonymous and the heart transplant process does not include any mutual agreements between the donor and recipient.

Consent

In the UK, a heart donation cannot proceed without consent. Consent can be given either by opting to be a donor or for those in England and Wales, by not opting out of the law of deemed consent. Moreover, the law of deemed consent in England and Wales is a soft opt-out system. This process means that despite an individual not having opted out from donating, the final decision rests with the deceased's family. Bearing the patient's consent in mind, Sachedina [13] highlights that 'more pertinently, desecration carried out in aggression is certainly different to a clinical incision made with the deceased's permission left in the advance directive to retrieve an organ'. As such, there appears to be no violation of human dignity on the part of the donor or the transplant team.

Funerary rites

Under ordinary circumstances, the corpse of a person who identified as a Muslim is to be given a set of funerary rites without any unnecessary delay. These rites include a bath, a shroud (also known as a *kafan*), a funerary prayer, and a burial. These rites are considered to be important as they are an expression of honouring deceased Muslims. As a result of the heart retrieval process, the burial is delayed, whichis viewed by some Muslims as a violation of human dignity [14].

However, it is common practice that organ retrieval is carried out as soon as brain death is confirmed, thus the burden of delaying the burial can be negligible and arguable.

Issues related to medical necessities

For a medical need, and in the case that a treatment option falls within the realm of a defined prohibition, one of the Islamic maxims that can be applied is that of the permission of choosing the 'the lesser of two evils' [15]. Other maxims that can be applied include: 'necessity permits the prohibited', 'hardship facilitates ease', and 'needs (haja) share the same legal ruling of necessity' [16]. However, the mere existence of a permissible alternative is insufficient to disregard whatwouldotherwise be a prohibited option. Rather, the permissible alternative should be equally effective as the one that is considered to be prohibited for the alternative to gain preference.

Furthermore, an important ethical maxim states that 'The sanctity of a living person is greater than that of the deceased' [17]. This means that the interest of the living takes precedence over the interest of the dead. Donation from a deceased person would have no implications to their life – which has ended - as opposed to the living donating their organs. Also, donations from the deceased would provide organs that cannot be obtained from living human donors, such as the heart and the lungs. Moreover, a single healthy cadaver can provide several organs that could be transplanted to benefit different patients and save their lives. As such, a heart donation would not only help patients with a failing heart to survive but would also help to alleviate their daily suffering.

In relation to medical necessity, a number of factors are considered by Muslim jurists such as:
1) What Islamic values would be violated?
2) Why are these violations necessary?
3) Is there an alternative?
4) Who would be harmed if the concession is not made?
5) Who benefits if the violation is tolerated?

Violations of Islamic values during heart retrieval

To retrieve the heart, a 24-30-inch vertical incision is required along the abdomen and the chest followed by sternotomy – which is the splitting of the sternum using a highly designed medical saw with minimal force. The sternum, which is to be split, has been viewed as a 'bone of contention' among Muslim jurists because sternotomy appears to conflict with Islamic values, which demand that the deceased be treated with dignity. The objection against sternotomy is based on a hadith, meaning a saying of Muhammad, the Prophet of Islam (peace be upon him, here forth referred to by his honourification*Rasulullah*) that *'to break the bone of the deceased is equal to breaking the bone of the living'* [18]. Here forth, we will refer to this hadith as *hadith kasradhm al-mayyyit.*

In terms of dignity, this hadith can be understood to mean that a corpse should be left intact during the funerary process, the burial, and arguably after the burial [19][20]. This dignity even extends to events that require the exhumation or relocation of the buried corpse. Consequently, splitting the sternum of a deceased donor, raises ethical issues resulting in conflicting views. Scholars including Shafi [8], Sunbhuli [21], Abu Zaid [16], Qabbani [22], Bakru [23], and Ghumari [24] view retrieving organs from a cadaver as strictly forbidden due to the violation of human dignity. These scholars argue that based on Ibn Hajar's interpretation of the hadith, the dignity of the deceased remains of equal importance as when one is alive [25]. Bearing this in mind, Ebrahim [26] highlights the sentiments of those reluctant to permit cadaver donation by echoing the question, 'How can one be permitted to cut up a man's body and remove an organ from it?'

The necessity of the violation

By contrast, other Muslim jurists view cadaver heart donation as being permitted due to dire necessity, lack of alternatives, and based on the notion that donating upon death is considered honourable [27][28]. This group of Muslim jurists hold the view that the above-mentioned factors override the theological argument given by jurists who oppose organ donation. As heart retrieval cannot be done without sternotomy, the necessity to have the heart retrieved can arguably be given greater importance.

Alternative treatment

A human heart is the most effective replacement for an irreparably damaged human heart. Furthermore, as of 2022, there are no alternatives that equal heart donations in effectiveness. In essence, by tolerating the splitting of a donor's sternum, life could be saved. Alternatively, by prohibiting heart donations - from consenting donors - based on the notion that the sternum of a deceased donor must not be split, the life expectancy of those who require a heart transplant is adversely impacted.

Beneficiaries of heart donation

From a non-theological viewpoint, arguments are made both in favour of and against cadaver organ donation. If one's existence ceases with death, then donating a heart neither benefits nor harms the deceased. Even if the recipient is grateful, the gratitude is received by the family of the donor. On the other hand, from an Islamic viewpoint, death is not the end. Rasulullah taught Muslims that *sadaqa* (charitable actions) continue to benefit a person even beyond death [29].

Dividing the sternum

Antagonists of sternotomy and heart transplants present *Hadith kasradhm al-mayyyit* as conclusive evidence to prohibit cadaver donation. The argument follows that sternotomy is forbidden and, as such, heart retrieval is also forbidden. However, Sheikh Abdul Majeed Saleem (The Grand Mufti of Azhar 1950-52) argued that the hadith defines a ruling that is bound to the context in which it was created [30]. A closer reading of the hadith suggests that the deceased should be treated in a manner similar to the living. In essence, it is not the act of 'breaking' that is forbidden, but it is the premise that the human body deserves the same honour and dignity in life and in death. There is clear implication in the hadith that breaking the bones of the deceased is 'forbidden' in the same way it is 'forbidden' to break the bones of a living person.

In the foregoing discussion, the verb 'splitting' and 'breaking' have been used to describe sternotomy. These verbs negatively connotate excessive force and damage. However, from a surgical perspective, the term 'division' is more appropriate. A heart retrieval follows standard surgical procedure and as such, the sternotomy is performed by a trained surgeon using highly efficient medical equipment. A precise cut to the bone is possible with minimal risk of damage to other tissues. The sternum is, therefore, arguably 'cleanly divided' in a straight line in the middle and not 'broken'. The heart is transplanted through a similar precise sternotomy. This division is then wired back together once the heart is retrieved. The procedure is identical to other forms of open-heart surgeries in a living patient. Bearing this in mind, if the sternum of a living person could be divided

for life-saving purposes then on that basis, why would dividing the bones of the dead be prohibited for the same reason?

Legitimately arguable then is the idea that if the bones of a living personcanbe surgically operated on for medical reasons, the bones of the deceasedcouldalso be surgically operated on for acceptable medical reasons. When a patient consents to have particular bones divided for a medical need, Islamic law permits such procedures. In most cases, this would be by explicit verbal or written consent. Examples include orthopaedic procedures, craniotomy, amputations, separation of conjoined twins, bone marrow transplants etc. However, therecanbe situations when explicit consentmightnot be possible, but rather consent is assumed or granted - such as in a case whena patient is rendered unconscious due to a serious head injury, or in the case of cardiopulmonary resuscitation (CPR) where potentially a rib could be fractured. As such, the act of 'fracturing' the bone of the deceased itself is not the primary issue but rather determining the 'necessity' of the possible fracturing. Just as it is permitted to divide particular bones of a living patient for a medical necessity, the hadith could arguably be understood to endorse the same for the bones of a dead person.

Is donating a heart honourable?

Sternotomy is performed only after consent is obtained by or on behalf of the donor. According to Al-Qaradaghi [31], the consent of the donor eliminates the violation argument and makes the surgical procedure permissible. A possible tentative argument as to why organ harvesting from the deceased is not tolerated in Islamic law is the potential delay in performing the funerary rites. This delay can be argued as 'dishonouring' the rights of the deceased. With this notion in mind, all efforts need to be made to ensure that funerary rites including a timely burial are offered. In terms of honouring the deceased, a heart donation does not prevent or significantly delay the donor from any of their Islamically afforded funerary rites.

Furthermore, a counter-argument for permitting sternotomy for a heart donation is that just as funerary rites bring honour to the deceased, so does saving the life of another human being. The Qur'an states that 'whoever saves a life, it is equal to saving all of humanity' [32].

Sheikh Ibrahim Al-Ya'qubi [33] described organ donation as being honourable for the deceased in the sense that the organs continue to remain beneficial for the living. Egyptian scholar MuhammadAbuShadi described organ donation as a noble act in the same way that sacrificing one's life for a just war is considered noble [34]. In relation to corneal transplants, Badawi [35] remarked that 'the success of recovering vision for a human is a wonderful gift and is demanded by the Sharia'. Mufti Kawthari (2004) adds that:-

> Current procedure of organ transplantation is not considered dishonouring a human body. The surgery is performed in the most respectable way and it is not considered to be disrespectful. This is the reason why many highly respected people of the community regard donating of organs as a mark of merit, and they are not looked down upon [36].

Ibn Abd Al-Barr (d.1071) argued that the *hadith kasradhm al-mayyyit* applies to a specific context. He further argued that by consensus of all Muslim Jurists, legal financial compensation applies only when someone breaks the bone of the living [37]. The application of such ruling implies that the similarity between breaking the bones of the deceased and that of the living is in terms of honour and dignity. Saleem [30] comments that the hadith could not have in any way taken into account organ transplantation due to the simple fact that it did not exist at the time. On this note, Yaseen [38] asks that since current transplantation practice was not considered at all in early Islam, what were their concepts of benefits, if any, from the transfer of a kidney, an eye, spinal marrow, a bone, the skin or any other human part? Certainly, not in the way we view reasons for extracting organs in the 21st century.

In light of the fact that organ transplantation was not possible, Al-Mawwaq (d. 1491) [39] from the Maliki school of law commented that the hadith prohibits abusing a dead body. Accordingly, Moroccan scholar, Mustapha Ben Hamza argued that the hadith prohibits exhuming graves in order to plunder them and such practises cannot be equated with transplantation, which is life-saving [40]. Sheikh Al-Qaradhawi also reiterates that the hadith refers to the mutilation practised in battles - such as those committed at the battle of Uhud, when the Meccans mutilated the deceased soldiers of the Muslims [41].

In relation to retrieving the cornea from a deceased donor, Al-Haridi [42] stated that the wider meaning of the hadith is to honour the deceased and not tamper with dead bodies unnecessarily (see also Bakru [43]). Saqar [44] also argued that there is a greater good in transplantation and is the lesser of two evils.

Conclusion

Having analysed hadith*kasradhm al-mayyit* and the manner in which Muslim jurists interpreted the hadith in a number of scenarios, a few pointscanbe concluded. Firstly, manipulating the bones of the living for medical reasons, after gaining consent by the patient, is permitted. The central argument in all cases is principally necessity, avoiding harm, and lack of alternatives. The underlying principle for *hadith kasradhm al-mayyit* appears to be the prohibition of breaking bones unnecessarily, whether that be of the living or the deceased.

Although no precedent in classical Islamic jurisprudence resembles heart donation, the discussions around human dignity, consent, tolerance, and charitable deeds allow a framework within which to situate heart donations. According to the Qur'an, saving the life of another human being is among the most honourable actions and saving one life is considered to be equal to saving all of humanity. As of 2022, the best alternative for a critically failing human heart is a human heart.

Heart donation is a novel case compared to the cases discussed in classical Islamic jurisprudence. In practice, for a heart donation, the donor gives consent prior to death; with the intention to save the life of another human being - as well as to hope to benefit in the afterlife through this act of sadaqa. Muslim jurists and health professionalscould promote heart donations better by highlighting the fact that the heart transplant procedure differs in context to that of hadith *kasradhm al-mayyit,*which seems to have played an unnecessarily significant role in discouraging heart donation. Furthermore, the anxieties of British Muslimscanbe addressed by highlighting that consent is mandatory. Furthermore, organs are strictly monitored by the Human Tissue Authority (HTA) to ensure that organs and tissues are not subject to any commercial transactions. Moreover, a heart donor can be honoured not only by the customary funerary rites but also by the exclusive honour of being a life-saving donor.

This article focused on the issue of sternotomy to retrieve the heart. However, there exist other concerns in relation to heart donation such as ensuring the donor has died of brain death. In this regard, concerns related to brainstem death are not discussed in this paper. Further ethnographic research could be conducted at the grassroots level in the UK by social scientists in collaboration with British Muslim jurists with regard to the perception of heart donors by the British Muslim community.

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HPV Vaccines: Clinical assistance to sin or prevent STIs?

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Abstract

The Human Papillomavirus (HPV), is described as the killer of young women; causing cervical cancer in women younger than 50 years old. Gardasil-9, the vaccine offered by the NHS to children as young as 12-13 years of age, could help protect against nine strains of HPV; two of which can cause anogenital warts and five strains that are oncogenic. The contention that may arise concerning providing consent to HPV vaccines is the notion that offering vaccines at such a young age may lead to early sexual activity. Parents and HCPs may feel that offering the vaccine is a form of promoting a promiscuous society. This paper examines the spread of HPV and the need for the vaccine at an early age. HPV vaccination programmes from Muslim-majority countries are also taken into account. The concept of 'assisting' is also explored in light of the Holy Qur'an.

Human Papillomavirus (HPV)

The Human Papillomavirus [pap″ĭ-lo′mə-vi″rəs] (henceforth HPV); induce exophytic lesions of the skin and mucous membranes. Over 150 types of HPVs exist which can be categorised by their oncogenicity (ability to cause cancer, especially cervical). More than 40 types of HPV cause anogenital warts (see Figure 1 below). The virus is extremely common and almost all sexually active men and women contract some strains of the virus at some point in their lives [1].

A person's immune system, however, will naturally clear infections. Other infections, nevertheless, could remain in the body for many years before they cause damage. Two types, HPV 6 and 11, are known to cause anogenital warts whereas 14 types of HPV are known to cause cancer [2]. A sexually active person carrying HPV could transmit it to their partner through sexual activity.

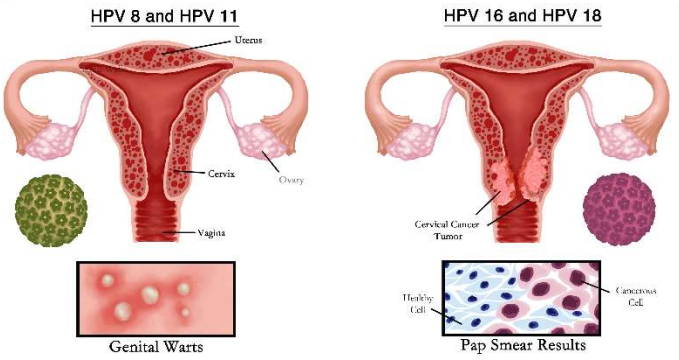

Figure 1. Genital warts and cervical cancer tumour[3]

Non-oncogenic HPVs: 6 and 11

HPV 6 and 11 are known to cause anogenital warts 90% of the time[4][5]. Although a carrier may not feel any change immediately upon contracting HPV, after many months, they will experience the growth of anogenital warts.

Oncogenic HPVs

14 HPVs (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68) are high risk (see Table 1 below). These HPVs cause anogenital cancers; including vaginal, vulvar, penile, and anal cancers [6]. HPVs can also cause head and neck squamous cell carcinomas (HNSCC). The two most dangerous oncogenic types are HPV 16 and 18. The former is responsible for 20% of all HNSCC [7]. Subsets of HNSCC include oral cavity SCC (OCSCC), oropharyngeal SCC (OPSCC), laryngeal SCC (LSCC) and paranasal sinus cancer [8][9]. HPV 16 is responsible for causing almost 90% of OPSCC and is prevalent in males [10]. According to the WHO, in women from low-to-middle-income countries worldwide, HPVs have caused 85% of cervical cancer cases [11].

HPV Type	Causes	Gardasil-9	Cervarix Quadravalent	Cervarix Bivalent
16 and 18	Oncogenic	✓	✓	✓
31, 33, 45, 52, 58	Oncogenic	✓	-	-
35, 39, 51, 56, 59, 66, and 68	Oncogenic	-	-	-
6 and 11	Non-oncogenic	✓	✓	-
1, 2, 4, 6, 7, 11, 13, 32, 42, 43, 44, and 55	Non-oncogenic	-	-	-

Table 1: HPV types and available vaccines

HPVs 16 and 18 and Cervical cancer

Two extremely dangerous types of HPVs are 16 and 18, which collectively cause 70% of precancerous cervical lesions and cervical cancer (henceforth CC) worldwide [12][13][14][15]. These two viruses are also responsible for most other HPV-induced anogenital cancers [16]. In Europe, CCs caused by HPV 16 and 18 amount to 75%; and in the UK, 80%. In the UK annually, CC kills around 900 women [17].

With regards to CC, the estimated number of new cases worldwide is approximately 530,000, along with an estimated 270,000 deaths annually [18]. Accordingly, CC is considered to be the fourth most common cancer in women worldwide [19]. However, in terms of age, CC is the most common cancer among women who are 15 to 34 years old [20]. As such, CC mainly kills young women - with 62% of cases occurring in women who are younger than 50 years old [20]. Besides HPVs 16 and 18, types 31, 33, 45, 52 and 58 (see Table 1 above) cause an additional 15% of CCs. Like the gradual emergence of genital warts caused by HPV, CC caused by HPV can also take many years to emerge.

Living as HPV positive or with cervical cancer

Sexual life can be negatively impacted by HPV-related infections [21]. The impact of HPV infection on women could be devastating physically, sexually, socially, and mentally. Physically, the infection would mainly affect the vulva and cervix. Consequently, physical changes could interfere with intimate relationships and sexual enjoyment may decrease [22][23][24]. Socially, the patient would require repeated tests and treatments. Moreover, social stigma may arise with regard to trust in marital relations. Such impact from various dimensions would harm the patient's mental health; the patient's physical health is likely to impact pregnancy plans. Repeated exposure to tests, could lead to feelings of vulnerability, shame, and in terms of femininity, low self-esteem.

Gardasil-9

Three vaccines have been developed for protection against HPV infections (see Table 1); these include: a) Cervarix bilavent vaccine, which protects against HPV 16 and 18, b) Cervarix and Gardasil Quardavalent vaccines which protect against HPV6, 11, 16 and 18, and c) Gardasil-9, which protects against the following nine strains: oncogenic strains 16 and 18 as well as 31, 33, 45, 52, 58 along with protection against non-oncogenic strains 6 and 11.

HPV vaccines have been monitored and are concluded as safe and having high efficacy in females and males [25]. Additionally, although Gardasil-9 does not treat established HPV infections, it could still protect against other strains and also protect against infection at different mucosal sites [25].

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Efficacy of Gardasil-9 at ages 12-13

HPV infections are usually found on the fingers, hands, mouth and genitals and can be spread by any skin-to-skin contact. Therefore, the virus can be spread during any kind of sexual activity, including touching. Although genital HPV is spread through intimate skin-to-skin contact during sexual activity, HPV strains that infect the mouth and throat can be passed on through kissing. An individual can have a genital virus for many years before any symptoms appear. As such, an individual might not be aware for many years that their partner is a carrier. The HPV vaccine is thus most effective when received before coming into contact with HPV i.e. around the ages of 12-13 before becoming sexually active [26].

The NHS information on HPV vaccines states that it is 'given as 2 injections into the upper arm spaced at least 6 months apart. In school Year 8, girls and boys aged 12 and 13 are routinely offered the first dose of the HPV vaccine free of charge. The second dose is also free and is offered 6 to 24 months after the first dose [27]. Moreover, the vaccination is free on the NHS until one's 25th birthday for girls born after 1 September 1991 and boys born after 1 September 2006. Beyond these conditions, patients requiring HPV vaccines would have to pay for each injection privately.

HPV vaccination in Muslim-majority countries

Given the harrowing statistics on HPV, the WHO's global strategy for the elimination of cervical cancer has led to over 100 countries, including Muslim countries, having introduced HPV vaccination [28]. Indonesia and Bangladesh, for instance, are offering vaccines at doctor offices, community health clinics, school-based health centres, and health departments. [29]

In Malaysia [30], Gardasil was made available for private use in 2006, and Cervarix in 2010, for females aged 9 to 40 years [31][32]. The National HPV Immunization Program was led by the Ministry of Health (MOH). The program aims to vaccinate about 250,000 school girls aged 13 years old every year with a goal to prevent 27,000–32,200 cases of cervical cancer by the year 2070 [33]. The success of the vaccine programme in Malaysia appears to be the strong triangulated collaboration of the MOH, the Ministry of Education, and importantly, the Fatwa council. JAKIM[a] declared that not only were the HPV vaccines safe and permissible but that, from a Shariah viewpoint, they were required [34][35][36][37].

In the Middle East, the Saudi Food and Drug Administration approved the Bivalent vaccine (Cervarix), and Quadrivalent vaccine (Gardasil) in 2010 for females aged 11 to 26 years. [38] Moreover, the vaccines were made available to males as an option and as part of the routine vaccine programme for females [38]. Vaccination is accommodated at private hospitals and clinics, along with a few major hospitals as well as paediatric clinics [38]. Furthermore, parental consent has been found to be high [39]. A study in the UAE by Ortashi et al. [40] found that '80% of those who had heard about HPV vaccination were willing to be vaccinated themselves, and 87% would recommend vaccination to relatives and friends'. The HPV vaccine is given to females prior to age 15.

The main challenge with regard to HPV uptake in Libya and UAE where exist HPV programmes exists appears to be financial constraints [[41]]. Likewise, the Iranian government has not been able to implement an immunisation programme due to the HPV vaccines not being cost-effective [42][43]. Many other EMR countries have also been facing economical challenges, however, HPV vaccines can be received in the private sector[44]. Despite, Malaysia's successful vaccination programme, the COVID-19 pandemic led to a halt in the national school vaccination programme in 2020 and 2021. The disruption resulted in about 225,000 females aged 13 years old missing their vaccination [45]. Resultantly, many parents have been unable to pay for their children's HPV vaccines due to extra costs [45].

Another factor which Heffernan et al. attribute to the reluctance toward sexual and reproductive health in the Middle Eastern North Africa (MENA) region is the notion that 'cultural normative values toward pre-marital sexual behaviour being forbidden in the Islamic faith and associated family dishonour and shame, and stigma with sexuality discourses' [46]. However, studies have shown that adolescent sexual activity is already existent and increasing in young Muslims aged 14-17 [13][47]. Irrespective of Shariah guidelines, such findings reveal the high risk of HPV morbidities. Additionally, some HCPs might also feel that by promoting the vaccine, they are tacitly approving non-Shariah-compliant behaviour [13].

HPV vaccination in the UK

According to the 2015 report from Public Health England, since vaccines were introduced, HPV infections in young women have significantly decreased. To elaborate, in the UK, prior to the start of the vaccination,

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HPV was the most common sexually transmitted infection. The HPV immunisation programme in England has contributed to almost eradicating cervical cancer in women born since Sept 1995 [48]. As such, the HPV vaccination programme is having an impact on reducing the number of CCs in the future.

Contentions among British Muslims: Promotion of a promiscuous society

One fear related to the HPV vaccine for some HCPs and Muslim parents is that the NHS vaccination programme might encourage sexual activity *exo-nikah* (which includes pre-marital and extra-marital). From a Shariah viewpoint, sexual activity is permitted only *intus-nikah*, meaning within the institution of marriage[b]. In England and Wales, according to the Marriage and Civil partnership Act 2022, which came into effect in February 2023, the age of marriage and civil partnership has been raised to age 18. With the HPV vaccines being offered at early as age 12, the fear in some members of the British Muslim community might be the notion that the youth may take advantage of the vaccine to engage in sexual activity exo-nikah. Even prior to the law change, one study revealed that 20% of Muslim Pakistani mothers declined the vaccination on religious grounds [13].

In Pakistan, due to a lack of an HPV vaccination programme, 68.6 million women are at risk of CC [49]. If a programme was to be introduced in Pakistan, over 133,000 cervical cancer cases could be prevented [50]. In religious communities, some mothers perceived the religious notion of abstinence from pre-marital sex as grounds for not requiring the vaccine [51][52][53][54]. On the other hand, according to a survey study in Lahore, Pakistan, 50 - 60% of the respondents mentioned that they would get the vaccine if it was recommended by their physician [55].

Another reason for refusing the vaccine - found among Jewish communities and a reason that could likely be the case in Muslim ones - is the lack of perceived risk of HPV-related disease because of circumcision and abstinence from sex before marriage [52]. The solution is, therefore, believed to be simply refraining from sexual activity until marriage. Such an approach appears to be based on good faith that one's partner(s) will also not engage in any sexual activity nor will they have contracted HPV orally.

Returning to the belief that vaccination is tacit approval for exo-nikah sexual activity, the contention appears to be rooted in the Qur'an. Verse 5:2, 'Help one another in birr and taqwa but do not help one another in ithm and udwan'. From a linguistic perspective, the general translation of *ithm* is given as 'sin' (52 English translations). *Birr* is translated as 'righteousness' (35) or 'good' (20) and is explained by Qur'anic commentators to be antonymous in the verse to ithm. Likewise, *taqwa* is translated as 'piety' (39) and is explained to be antonymous in the verse to *udwan*, which was found to be translated in a number of ways including 'transgression' (34), 'aggression' (23), 'enmity' (15), and 'hostility' (15).

Through the lens of Islamic jurisprudence, however, *ithm* is applied to an act that is regarded as intrinsically sinful such as stealing and murder. On the other hand, *udwan* is when actions that are permitted but are done beyond their permitted limits and boundaries are seen as 'transgression'. For instance, eating and drinking are permitted, however, to have a fatal diet would be considered udwan. Likewise, sexual activity is permitted intus-nikah whereas sexual activity exo-nikah is considered another form of udwan.

Moreover, the context of verse 5:2 is explained by Tabari [56] (d.839) and Tusi [57] (d.1067) to refer to a case during the time of the Prophet (peace be upon him) when a group of Medinites collaborated to exact revenge on a thief. An individual by the name of Al-Hutam bin Hind Al-Bakri had travelled to visit the Prophet in Medina under the pretence of inquiring about Islam. However, on leaving Medina, he raided cattle belonging to the Medinites and on reaching Yemen, he slaughtered the cattle and profited immensely from sales. Al-Hutam then used the profits to purchase a large amount of merchandise to sell at the upcoming Hajj. The Muslims who were outraged by his audacity wanted to arrest and take Al-Hutam to account. However, Al-Hutam sought refuge within the sacred vicinity. Given the sanctity of the time and place, the Qur'an highlights that killing the thief would be *ithm* and to support one another in arresting him in the sacred vicinity or forcefully removing him therefrom, would be *udwan*.

As such, a significant contextual difference arises between offering HPV vaccines and the incident referred to in the Qur'an. The latter prevents Muslims from carrying out a process which involves compromising key Islamic values, albeit to establish justice, whereas offering HPV vaccines does not appear to violate any value. The hesitancy around the HPV vaccine is then based on fear of abusing the vaccine programme; which is beyond the remit of HCPs.

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A key Islamic jurisprudential maxim to bear in mind is '*al-umour bi-maqasidiha'* meaning 'Matters are determined by their purpose [58]. Another relevant maxim is *'al-ebratu bi-siyagh al-uqoud aw bi-ma'anih'* meaning 'Matters are to be considered based on linguistic representations and their meanings' [59]. The purpose of offering HPV at a young age, as stated by the NHS, is to protect against HPV before children come into skin-to-skin contact with an individual who has HPV. Irrespective of Shariah guidelines promoted in culture, child sexual abuse is a reality that must not be overlooked.

Offering HPV vaccines does not amount to helping in *ithm*. The HCP, offering the vaccine to a child, intends safety. The HCP's responsibility is to prevent harm. Furthermore, the patient's intentions would unlikely be verbalised i.e. that the patient would state that they would like the HPV vaccine so that they could engage in sexual activity exo-nikah. Additionally, the Qur'an clarifies that one shall not bear the burden of another's sin [60]. The Qur'an, therefore, places no blame on the HCP for providing sincere clinical support to prevent harm. Moreover, according to Islamic theology, sexual activity exo-nikah is a matter that is deferred to Allah for judgement, whereas providing clinical support is regarded as an honourable service to His creation.

Supporting HPV vaccines is also not the same as euthanasia or abortion, because the latter two cases involve taking a life which directly falls under *ithm*. In the context of HPV vaccines, *ithm* would be to engage in sexual activity exo-nikah post-vaccination whereas verbally encouraging the act post-vaccination would be considered *udwan*.

Furthermore, Shariah law prioritises halal over haram. The recommended Sharia approach is to base decisions on the idea that Muslims will opt for halal - as that is what they have subscribed to willingly. According to the Qur'an and hadith literature, *dhann* (suspicion) is criticised as the worst basis for making decisions [61]. As such, the central idea with regard to HPV vaccines is that Muslims would be able to enjoy a healthier life mentally, sexually, physically, socially and spiritually.

Fewer cases of HPV would need to be disclosed prior to marriages and couples would be able to enjoy safe halal sexual relations intus-nikah. Moreover, in unfortunate cases of sexual abuse or where a spouse did not disclose carrying HPV, the victim would have a better chance of not contracting HPV.

Discussion

Before British Muslims refuse to receive HPV vaccines or decline on behalf of children, some considerations are important.

From a moral perspective, whilst providing pastoral care is primarily the role of the ulama, an existing illness still requires management by HCPs. Treating medical conditions are viewed in Shariah as a form of *ihsan*, meaning kindness. Secondly, although an individual may abstain from sexual activity exo-nikah, the vaccine would protect them from contracting HPV should their partner be a carrier. The symptoms of HPV also include anogenital warts, which could result in the patient suffering from poor mental health and low self-esteem. Moreover, the vaccine could save individuals from social stigma.

In terms of costs, British Muslims are fortunate to have access to Gardasil-9. At the time of writing, this vaccine was unavailable in many low-income and middle-income countries that are not eligible for support from Gavi [62]. As discussed, even in Muslim countries like Malaysia and Iran, parents and the government have faced economical challenges.

Perhaps a strong point to consider is the fact that a country like Saudi Arabia promotes vaccination despite its stringent regulations to prevent sexual activity exo-nikah. For instance, culturally, such behaviour is strongly discouraged from a religious viewpoint. Couples would not be permitted to make reservations at a hotel without a marriage certificate. Even when couples intend to marry, a blood test is required to detect genetic and infectious illnesses. Such measures contribute to decreasing sexual activity and thereby, the spread of STIs, yet HPV vaccination is encouraged. In the UK, such stringent measures to prevent sexual activity are not in place, nor are blood tests for marriage purposes a requirement culturally or legally. As such, British Muslims ought to strongly consider receiving the HPV vaccination for their protection and perhaps, even consider blood tests for marriage purposes.

Conclusion

HPV is known to cause anogenital warts and cervical cancers. Many strains of the virus exist, however, the Gardasil-9 vaccine helps to protect against nine strains of which five are oncogenic. Living with HPV can have a negative impact physically, sexually, mentally, and socially. The most effective period to receive the

vaccination is around 12-13 years of age i.e. prior to becoming sexually active. Offering the vaccine to individuals is to promote health and safety and is a form of assisting in public welfare.

A collaboration of medical experts and Muslim jurists is key to addressing patient concerns. Educational sessions could be held in Mosques, Islamic seminaries, and community centres during Ramadan, Hajj, and marriage seasons. Alternatively, mobile vaccination vehicles could be stationed where British Muslims gather. Sessions could be tailored and delivered in languages understood by patients and influential members of communities to address myths and misconceptions.

HCPs and faith leaders need to educate the public on the fact that Gardasil-9 does not protect individuals against other types of HPV types (see Table 1). Neither is the vaccine a form of contraception nor does it protect against other infections that could spread during sex, such as AIDS, chlamydia, gonorrhoea, and syphilis. Likewise, common warts can still be caused by HPV types 1, 2, and 4; planter warts by types 1, 2, and 4; anogenital warts by types 6, 11, 42, 43, 44, 55 and more; epidermodysplasia verruciformis by more than 15 strains; oral focal epithelial hyperplasia by types 13 and 32; and oral papillomas by types 7 and 32 [63]. In line with the UN joint global programme on CC prevention and control [12], cancer screening also needs to be promoted given that the only type of HPV-related cancer with a recommended screening test is CC.

In addition to grassroots efforts to promote better health care, HCPs and Muslim jurists could collaboratively author 'medical fatwas' [64] on HPV to promote an informed and unified stance. Importantly, given that HPV causes cervical cancer in young women, female perspectives on this matter are crucial.

Notes

[a] Malay: Jabatan Kemajuan Islam Malaysia - the federal government agency in Malaysia that administers Islamic affairs in Malaysia.

[b] The technical term for 'marriage' in Shariah is law is nikah comprising of terms and conditions.

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Death and Gender Theories: Implications for Muslim Doctors and the Muslim Public

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Abstract

Historically everyone understood what death meant. If you were dead, you were dead no matter which country you were in, it meant the same thing wherever you were. Moving from one jurisdiction to another did not affect your legal status of being alive or dead. After being declared dead you were ready to be buried. In the past everyone understood what it meant to be a woman or a man, sex and gender were intrinsically linked and the two terms were used interchangeably. Your sex and gender were determined at birth and remained fixed throughout life. Your legal status of being a man or a woman was not dependent on which jurisdiction you happen to be in. But over the past few decades new theories about death and gender have emerged and evolved under social and political influences giving rise to the phenomena of "legal death" and "legal sex (gender)" which are no longer rooted in actual science. Such that your legal status of being alive or dead, being a man or a woman can depend on which jurisdiction you happen to be in. Some see these theories as social constructs, others as legal fictions. In this post-rational ideology era of political correctness and social justice real debate on such issues is either avoided or discouraged, and many individuals do not voice their opinion for fear of being verbally attacked or abused.

Although there are a number of theories regarding death and gender, the two theories which are currently in vogue are the brain death theory and gender identity theory. Both these theories are based on western society values and have been incorporated into law in many western countries around the world. The practical application of these two theories means they impact the working practices of Muslim health care professionals and the Muslim public in general. This article looks at how these two theories have evolved and their implications for Muslim doctors and the Muslim public.

Introduction

At first glance death and gender would appear to have little if anything in common yet both these phenomena which were traditionally based on science are increasing being rooted in theoretical concepts. They are both seen by some as novel social constructs1,2 that have evolved over a period of a generation or so and reflect changing western society values over that time period.

Although there are a number of theories regarding death and gender, the two theories which are currently in vogue are the brain death theory and gender identity theory. Both concepts postulate that death and gender are confined to the brain while ignoring the rest of the body thereby defying reality. Close examination of each of these concepts leads to absurd logical conclusions which puts doubt on the veracity of the original premise upon which each of these theories are constructed.

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What is death?

One of the problems in determining if someone is dead or not is the definition of death itself. Death is a relatively vague term, and its definition depends on the context giving rise to various types of death such as social death, spiritual death, human death, clinical death, medical death, religious death, legal death, and biological death amongst others.

In this article "actual death" shall refer to what has understood to be death by the ordinary person throughout human history until recently. It is an event which occurs only once in each human being, which involves death of the whole body, with no signs of life, an event which is irreversible by any human intervention and leads to decomposition of the body within days under normal circumstances.

From an Islamic perspective, as well as in Judaism and Christianity, death is signalled by the departure of the soul from the body3,4. The Qur'an also states that death is not a concept of the human mind but reality created by the Almighty:

"Who has created death and life, that He may test you which of you is best in deeds. And He is the All-Mighty, the Oft-Forgiving.."5

And that death is followed by decomposition of the body: "They said: "When we are dead and have become dust and bones, shall we be resurrected indeed?"6

What is gender/ gender identity?

The definition of the word "gender" and its use can be even more confusing than the word "death".

In the past the word gender was used to refer to nouns as being grammatically masculine or feminine in gender in many languages such as Latin, French, Arabic, Urdu, etc. Stock7 identifies four different ways in which the word gender can be used in this day and age:

Gender can be used as a polite substitute for biological sex and was used in official documents in this manner.

Gender is used to describe social stereotypes, expectations and norms of 'masculinity' and 'femininity', originally directed towards biological males and females respectively.

Gender is used for the division between men and women, understood, by definition, as a division between two sets of people: those who have the social role of masculinity projected on to them, and those who have the social role of femininity projected on to them.

Gender is used as a shortened version of gender identity. There are a number of theories (models) related to gender. The medical model theorises that gender identity is mismatch of gender identity (of the mind) with biological sex (of the body) manifesting itself as a condition called "gender dysphoria"8 which was at one time classified by some medical experts as a mental disorder. This is no longer the case in the NHS (UK). In this model gender is a relatively permanent feature.

The gender theory currently in vogue can be understood as the stick of rock (SOR) model which postulates that gender identity is a fundamental part of the self and determines who you "really are". The SOR here refers to a hard cylindrical stick-shaped boiled sugar confectionery commonly sold at seaside tourist resorts in the United Kingdom. The SOR cylinder has a pattern, usually the name of the resort, embedded throughout its length, analogous to a gender identity embedded in an individual.

Principle 3 of the Yogyakarta Principles9 describes gender identity as "integral to … personality" and "one of the most basic aspects of self-determination, dignity and freedom". Winston10, a well-known British retired professor of gynaecology, says in his book: "No one else can tell someone else what their gender identity is."11 Stonewall, a British charity supporting LGBT rights, defines gender identity as: "A person's innate sense of their own gender, whether male, female, or something else … which may or may not correspond to the sex assigned at birth"12. Gender theory now recognises gender identity as not necessarily being fixed as in the SOR model but as being fluid in nature thereby allowing an individual to change genders or have no gender at all (agender) or multiple genders at the same time (polygender) and there appears to be no limit on the number of gender types possible.

Some of these later developments to the gender theory may have been influenced by role-playing in video games which allow the player to take on an identity of one's choosing depending on one's mood and feelings. From an Islamic perspective the Qur'an says:

"Exalted is He who created all pairs - from what the earth grows and from themselves and from that which they do not know."13
"And of everything We have created pairs, that you may remember."14

"And the male is not like the female…."15

These Qur'anic verses imply that Islam recognises only two genders (biological sexes) and rulings within Islamic law are based on a two gender model.

Some have suggested that the Quran indicates an additional gender when delineating women`s code of ethics for social encounter with the opposite sex:

"… or those old male servants who have no physical desire… "16

Islam law recognises a "mukhannath" which can be described as an effeminate male and a "khuntha" which is an individual with both male and female organs according to Ibn Qudamah17, although the term is also used for an individual with ambiguous genitalia.

Evolution of the brain death theory

The clinical condition which is referred to as "brain death" was first described in 1958 by two French neurologists, Pierre Mollaret, and Maurice Goulon, who presented a series of 23 patients with irreversible coma due to severe neurological injury at the 23rd International Conference of Neurology. They termed this clinical condition as coma dépassé18.

In 1966, at the CIBA Foundation international symposium on "Ethics in Medical Progress: With Special Reference to Transplantation"19 held in London, one of the main issues was definition of death. Discussions took place concerning the issue of equating le coma dépassé with death for the purposes of organ procurement but there was strong opposition to this concept and the idea was abandoned.

Events then moved over to the USA where in 1968 the Ad Hoc Committee of Harvard medical school was formed under the chairmanship of Henry Beecher, an anaesthesiologist, perhaps in response to the first human to human heart transplant which took place in South Africa in December 1967. In June 1968, the Committee published a paper entitled, "A Definition of Irreversible Coma" in the Journal of the American Medical Association (JAMA) putting forward the concept that an individual in a state of irreversible coma was dead even if the heart and circulation continued to function without providing any philosophical justification for such an assumption.

Questions started to be raised in scholarly literature about this new concept of death.

The original criteria for diagnosing this new clinical condition of "brain death" was modified in subsequent years. The requirement for a completely flat EEG which was necessary for the diagnosis of brain death was withdrawn only a year later, then the requirement for loss of all functions of the central nervous system was dropped as it soon became apparent that spinal cord function could persist in brain dead patients.

In 1981, President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioural Research put forward a philosophical rationale for the brain death concept as "irreversible loss of the capacity of the body to organise and regulate itself, to function as a whole," which was subsequently refuted by a number of commentators including Shewmon20,21, Karakatsanis22 and Tsanakas23, Truog3 and Nair-Collins24.

In response to growing critics, in 2008, the President's Council on Bioethics decided to re-examine the rationale behind the brain death theory to try to provide another philosophical rationale for the brain death concept.

Meanwhile, in the U.K. the brain death concept was also undergoing modifications and revisions. In 1976, the Conference of Medical Royal Colleges published brainstem criteria as prognostic guidelines "to establish diagnostic criteria of such rigour that on their fulfilment the mechanical ventilator can be switched off, in the secure knowledge that there is no possible chance of recovery"25.

Three years later, in 1979, the Conference of Medical Royal Colleges decided that the prognostic guidelines published in 1976 would constitute a diagnosis of brain death meaning that the patient is dead26. It was also claimed that the diagnostic criteria established for brain death criteria would suffice for whole brain death.

This claim was withdrawn in 1995 after a review by a Working Group of the Royal College of Physicians. The Conference of Medical Royal Colleges formally adopted the term "brainstem death" which was stated to be equivalent to death of the individual27 which was put

into question by the German neurosurgeon Hassler's report of successfully arousing patients comatosed from discrete brainstem injury by artificially stimulating the reticular activating system.28

Furthermore, criticism of the UK's brainstem criteria was voiced by the President's Council for Bioethics in 2008, "The UK standard….such a reduction, in addition to being conceptually suspect, is clinically dangerous because it suggests that the confirmatory tests that go beyond the bedside checks for apnoea and brainstem reflexes are simply superfluous."29

In the 1990s, it became clear that certain brain functions such as hypothalamic and pituitary functions remained in brain dead patients, and this was not consistent with the legal definition of brain death which required irreversible cessation of all brain functions (UDDA Act, 1981). "Cessation of all brain functions" in clinical practice became to be interpreted as "cessation of all critical brain functions, " which led to some academics such as Singer voicing their concern: "the brain death criterion for death is nothing other than a convenient fiction"30, a view corroborated by other scholars.31,32,33 Veatch has gone so far as to say, "It has now become clear that no reasonable person accepts the Harvard Committee position that "brain death" is a plausible definition of death."34

Evolution of the gender identity theory

In 1949, the French existentialist feminist, Simone de Beauvoir, in her book entitled "The Second Sex" wrote "One is not born, but rather becomes a woman." De Beauvoir argued that cultural representations of femininity are mostly formed by, and largely in the interests of men. Womanhood and by extension manhood are essentially social and not biological. Women are defined as a group who have a feminine social role projected upon them. This idea was later developed by the so-called "Second wave" feminists in the 1960s and 1970s who gave femininity and masculinity, understood as the different bundles of expectations, stereotypes and norms faced by men and women respectively, a special name,"gender".For many of these second wave feminists, it was important to think of gender (in this sense) as purely social, without a biological basis. This gave birth to the conceptual distinction between (biological) sex and gender.

This conceptual divorce between biological sex and gender allowed feminists to debunk the old-established norms of a woman's role in society entrusted on her because of her anatomy. A woman's potential should not be limited by her biology gave rise to laws on contraception and abortion.

In the medical field, also in the 1960s the concept of gender identity was first introduced by Money and Stoller. Money defined gender roles as "all those things that a person says or does to disclose himself or herself as having the status of a boy or a man, a girl or a woman."[35]

The concept of gender identity then arose out of gender roles. According to Money: "Gender identity is the private experience of gender role, and gender role is the public manifestation of gender identity."[36] A gender identity was considered to be a psychologically internalised gender role. It was assumed that during early development, each one of us comes to psychologically relate to ourselves in a wholesale 'gendered' way, which may or may not match facts about our biological sex. Money thought that gender identities could be male, female or neither ("androgynous").

Money was involved in the gender reassignment of Bruce Reimer. Bruce and his identical twin brother Brian were born in Canada in 1965 and both were diagnosed at the age of six months as having phimosis. While undergoing a routine circumcision procedure Bruce's penis was severely damaged beyond recognition by the use of diathermy. Bruce's parents sought the advice of Money, a psychologist and sexologist who worked at the John Hopkins Hospital in USA, who advised them to raise Bruce as a girl. Bruce subsequently underwent gender reassignment surgery at the same hospital in which his penis and testes were removed and tissues refashioned into female genitalia. He was renamed Brenda. During puberty Brenda was given oestrogen to promote breast development. Brenda and Brian were regularly followed up by Money as part of his research. Brian being an identical twin was a perfect control. Brenda was forced by her parents to wear dresses and was directed to engage in typical female norms, such as playing with dolls and mingling with other girls. Brenda's parents never disclosed to Brenda that he/she was born a boy.

Money described Brenda's sex transition as a success claiming Brenda behaved like a little girl and did not demonstrate any of the boyish mannerisms of the twin brother Brian. Money published data to reinforce his theories on gender identity providing justification for other sex reassignments surgeries to beperformed on children across the USA. However, Brenda's parents revealed a completely different story. They reported that Brenda did not identify as a girl and resented visiting

Money for treatment to the extent that at the age of thirteen Brenda threatened to commit suicide if subjected to further visits to Money for treatment. At the age of fifteen Brenda's father told Brenda the truth about being born a boy and the subsequent sex reassignment surgery performed for transition into a girl. Brenda in later years revealed suffering from psychological trauma, changed her/ his name to David and later underwent de-transition surgery and hormone therapy in an attempt to transit back to his original birth gender/ sex of a male.

In 1990 David married a single mother of three. He later went public about his medical history accounting what he endured under Money's treatment and at the age of 28 committed suicide.

Despite what appears to be a failed experiment Money's clinical work and ideas were influential in shaping the gender identity theory. Money, had initially developed the concept that we adopt gender roles to individuals with disorders of sexual development (DSDs), sometimes referred to as intersex individuals, but later extended the concept to everyone, suggesting that we all adopt gender roles. Money postulated that gender identity is primarily learned through one's upbringing (nurture) as opposed to one's inborn traits (nature). He proposed that gender identity could be changed through behavioural interventions, and he advocated that gender reassignment was the solution for treating any child with DSD traits or atypical sex anatomies. A new-born child could be raised either as boy or a girl dependent on social upbringing. By separating gender from biological sex it became apparent that gender need not be limited to just two options, male or female.

In the 1980s Fausto-Sterling, a professor of biology and gender studies, increased the public's understanding of DSDs and reinforced the concept that biological sex is not limited to just two options. She postulated that sex is "a vast, infinitely malleable continuum."[37]

In 1990 Butler's theory asserted that gender is a performance[38]. Butler based her analysis on Michel Foucault's idea that the juridical systems of power are responsible for producing the subjects they represent. In other words, the subject is formed, defined, and reproducedin accordance with the requirements or principles of the power structures. This also applies to the gender categories of male and female: they are arbitrary, artificial and do not reflect any prior material division. Butler asserted that the only way feminism could be revived was to unchain itself from the attempt of forming a single, unified and definite gender identity. Butler asserted that not only is gender a social construction but also sex which she considered to be a gender category. The body is conceived as a mere passive recipient of cultural laws and norms, biology loses its central position to determine destiny and is replaced by culture and society.

Butler's work had a significant impact in academic circles in the field of gender studies. In the 1990s the queer theory[39] was forged and Women's Studies departments founded in the 1970s and '80s started to rename themselves as Gender Studies departments.

In the 2000s the gender theory really took off as we know it, probably influenced by Serano's work entitled "Whipping girl"[40] postulating that sexual difference in its biological facet is endogenous (in the brain) and separate from ''gender expression''. It is not one's biological sex nor even one's "social role" that makes one a woman or a man – it is having a female or male "gender identity" that does it.

In 2006, an international group of experts in law, health and human rights met in Yogyakarta, Indonesia, and produced what have become known as the "Yogyakarta Principles" which declared gender identity to be a fundamental human right, one of the most basic aspects of self-determination, dignity, and freedom.

Principle 3 states: "No one shall be subjected to pressure to conceal, suppress, or deny their … gender identity". Moreover: "all State-issued identity papers which indicate a person's gender/sex – including birth certificates, passports, electoral records, and other documents – [should] reflect the person's profound self-defined gender identity."[8]This is in effect changing or erasing the history of a person in an effect to hide the reality. There are companies which will doctor family photographs to change the reality.

The practical effect of gender self-identification has seen an explosion in the number of gender identities. In 2014 Facebook offered its UK users a choice of 71 gender options.[41] This explosion in gender identities is mirrored by an explosion in gender dysphoria amongst teenage children and the emergence of a new condition called rapid onset gender dysphoria[42].

Since publication of the Yogyakarta Principles, the concept of gender identity as a fundamental part of the self, not under any circumstances to be suppressed, has filtered down into legislation and policymaking in numerous countries and states.

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Determination of Legal Death and Legal Sex (Gender)

Although there is no statutory definition of death in the UK, the UK law courts have accepted brainstem death as legal death43,44,45. Whole brain death is recognised as death in law in all USA States.
The method of determining legal sex was devised by Omrod in 1970, after the Corbett v Corbett46 case, being dependent on type of gonads, chromosomes and genitalia at birth. Following the Goodwin v United Kingdom47 case decision by the European Court of Human Rights in 2002 legal sex is now determined through gonads, chromosomes, and genitalia at birth and though gender role and gender reassignment treatment.

Logical deductions derived from the 2 theories

To check the veracity of the premises upon which each of these two theories are based on we can look at the logical deductions which can be derived from these two theories:

1. Doctors on occasions provide medical care including ventilation to dead bodies.
2. By providing oxygen and food to a dead body its bodily functions can be maintained and its decomposition can be prevented; in some cases for years.
3. An individual who has oxygenated blood flowing throughout his body, is able to absorb oxygen through his lungs, absorb food through his gut, expel waste products from his body, grow normally, fight infection, able to heal wounds, maintain homeostasis can be legally declared dead. All these are signs of life, yet the individual can be declared legally dead.
4. An individual who does not have a single organ in his body which is dead can be declared legally dead, implying the whole body is dead.
5. An individual whose body is performing numerous bodily functions of life normally which are necessary to sustain life can be declared legally dead.
6. An individual with a beard, hairy chest, fully functioning testes, producing spermatozoa, with normal looking male genitalia who has fathered a child can be declared legally to be a woman in some countries around the world, and such a law may soon be introduced in Scotland.
7. Gender on a birth certificate[48] can be legally changed means that the past can be altered. An individual who decides to change gender is given a new medical record with a new NHS number. Any information relating to the patient's previous identity is not to be included in the new record
8. "Boys can have menstrual periods too."[49]
9. "Biological men can give birth"[50]
10. "A woman can have a penis."[51]

To many people these logical deductions will appear absurd, they defy human intellect and bring into question the premises upon which each of these two theories are constructed. However, these theories and deductions arising therefrom are supported by academics, educational institutions, high level politicians, health bodies and the mainstream media.

It is important to realise that theories and even legal rulings are not always based on reality. Such theories are effectively a set of beliefs, a quasi-religion. With a rapid decline in traditional religions many people have adopted this quasi-religion because it gives them a sense of belonging, a sense of purpose, feeling good and virtuous. Brain death and gender identity impart legal status of death and gender on an individual, but they do not and cannot change the biological state of an individual.

Implications for Muslims

For Muslim health care professional involved in organ transplantation surgical retrieval of organs from individual declared brain dead may pose a moral dilemma. If brain death is not actual death, then the removal of essential organs will lead to death of the donor. The taking of human life is explicitly forbidden in the Qur'an:

"…and kill not anyone whom Allah has forbidden, except for a just cause (according to Islamic law). This He hascommanded you that you may understand."[52]

From the perspective of the organ donor it is forbidden to give up one's own life or to instruct someone to end one's life, the Qur'an says:

"*And do not kill yourselves (nor kill one another).*"[53].

Muslim healthcare professionals may also be involved with surgery on DSD individuals and gender reassignment (affirmation) surgery. Islamic scholars consider it permissible for a *khuntha,* an individual with abnormal sexual development such that the genitalia are ambiguous, to undergo corrective surgery for medical reasons. Islamic scholars have provided guidelines based on external body features in assigning sex to a *khuntha*[54,55]. A *khuntha* in whom sex can be determined is referred to as a *khuntha ghayr mushkil*, whereas one in whom sex cannot be determined is referred to as *khuntha*

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mushkil. The Islamic scholars allow medical and surgical corrective treatment in a *khuntha ghayr mushkil* in whom features of maleness or femaleness can be determined. However, these basic guidelines and terminologies do not adequately reflect the full range of abnormalities seen in DSD individuals in medical practice.

Under the gender self-identification system Muslim female patients may also face challenging situations while seeking treatment in the NHS such as having a cervical smear test performed by a health care professional who is legally a woman but biologically a male[56] with all the features of a male.

Discussion and Conclusion

From the above discussions it would seem defining death and defining a woman (or man) in a concise manner is extremely difficult. However there is no doubt that there are only two biological states of being alive or dead and only two biological sexes, male and female. In rare cases it is not always possible to neatly categorize every individual as male or female.

One approach to determine if an individual is dead or alive or a man or a woman is to look at a cluster of features associated with each of these labels to see which label best fits a particular situation. A very small percentage of cases which do not align according to a well-established classification system does not mean that the classification is non-functional and needs to be abandoned. An exception to the rule should not be used to formulate the rule itself. A new definition or classification should only be adopted if it aligns with reality better than a previous classification or serves the needs of society more usefully. From an Islamic perspective any new classification should be within the bounds of Islamic law.

It is important to realise that what is enshrined in secular law is not necessarily in concordance with biological reality or religious beliefs.

The death and gender identity theories are still evolving. There is a push to disconnect the meaning of these terms from science. Some academics are claiming that “there is no such thing as biological sex”[57] nor is it valid to hold a position that there are only two sexes. Some gender theory scholars attribute biological sex not to biology but to birth certificates[58]. Even some politicians promote this ideology. In 2020, Dawn Butler of the Labour Party as the Shadow Women andEqualities Secretary stated on national TV that babies are born without a biological sex[59]. To push this ideology into social media has faced some resistance in the law courts. The 2021 High Court ruling[60] in the test case of Maya Forstater means that gender-critical beliefs are protected by the Equality Act. So it appears that to believe that biological sex is real and immutable as a belief is protected by UK law. The gender debate has become highly politicised in North America and U.K. with the schools becoming part of the battle ground.

The teaching and promotion of gender identity which was initially introduced as an anti-bullying program to make LGBTQ+ kids at schools feel comfortable and safe has resulted in everyone having to learn a whole new terminology, as well as affirm and celebrate this new gender ideology. Every child is considered potentially LGBTQ+ which has the effect of shifting the basis of stability of the children and promoting a skewed picture of reality.

Science tells us that human reproduction is sexual, it involves the production of only two kinds of gametes (spermatozoa and eggs) which applies to all mammals. From an evolutionary perspective sexual reproduction developed millions of years before the cognitive function of the brain so biological sex was established long before any notion of gender identity. The biological potential to produce either spermatozoa or eggs is the underlying basis of biological sex, and there are only two options.

In a similar manner death is being disconnected from the fact that death inevitably leads to a rapid cessation of all body functions of life and decomposition of the body. Proponents of the brain death theory tell us that the real underlying cause of death in patients declared dead using traditional cardio-respiratory criteria is brain death because cessation of heart beat means no blood flow to the brain which will lead to brain death.

If a theory developed by a rational mind, such a brain death and gender identity theories, cannot withstand the test of rationalism the such theories should be rejected.

Otherwise, the use of everyday language has to be changed to accommodate such theories with absurd outcomes[61,62]and perhaps even lead to thought control for fear of falling foul of the law. As George Orwell said, “"If thought corrupt language, language can corrupt thought."[63]

Is it possible for someone dead to come back to life[64,65], is it possible for a dead body not to decompose for weeks or months under normal circumstances, and can a man

mensturate[48], have a uterus and give birth to a baby[66]? The answer to these questions based on our traditional understanding of death and what it means to be a man is, "Absolutely not." Yet, the application of the brain death and gender identity theories has meant the answer to these questions is, "Yes!" The underlying reason is we have changed the definition of what it means to be dead, and what is means to be a man or a woman.

Other absurd outcomes are likely: an 80-year-old individual with multi-organ failure with a brainstem stroke, sepsis and C2-3 cervical cord injury on a ventilator who has no brainstem reflexes except an eyelash reflex is alive while a 20-year-old individual involved in a motor vehicle accident who has sustained a serious brainstem injury is in a coma, has no brainstem function but all his other organs are functioning is declared dead by neurological criteria. The reality is that the 80 year old is closer to actual death than the 20 year old, yet the former is alive but the latter is considered dead.

Similarly, individuals who are legally men will be offered cervical smears. New terminology such as "menstruators"[67], "cervix-havers" and "chest-feeders"[68] is being used by some health bodies and the media is following suit. For instance, the American Cancer Societyrecommends that "individuals with acervix" follow their guidelines[69].

In this post-rational ideology era truth for many people is not necessarily based on facts and reality but on whatever is required is to achieve a particular goal or based on a particular narrative. According to this new ideology truth is a social construct, this truth has to be accepted even if it defies our senses and human logic. Politicians have entered the arena to rubber stamp what they want to promote as the truth with little or no regard to common sense and reality. In Islam truth is to be sought from Revelation, namely the Qur'an and hadith, thereafter using human intellect and thereafter one's senses. Neither brain death nor gender identity theories are explicitly mentioned in Scripture but both go against what our senses tell us and against human intellect. These theories are an afront to objective truth and they impact our lives. That is why they need to be challenged. If intelligent individuals remain silent or promulgate theories which are not backed by scientific evidence then it is difficult to know what direction our society will take.

The adoption of these novel theories has practical implications for Muslim doctors and the Muslim public. Muslim scholars[70] and other experts need to discuss thesecomplex subjects to provide Muslim doctors and the Muslim public unified guidance on issues such as retrieval of essential organs from brain dead individuals, the prescribing of puberty blocking drug for gender reassignment, participation in gender reassignment (affirmation) surgery.Any guidance by the scholars must necessarily take in to account the law of the land while at the same time comply with Islamic beliefs and duties. The recent ruling by the Employment Appeal Tribunal in the case of Dr. David MacKereth v The Department for Work and Pensions[71] held that religious beliefs are protected under the Equalities Act 2010 but the appellant was not entitled to express those views at work.

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The Ottoman Medical School of Damascus and its Effect on Teaching Medicine in Syria

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Abstract

In 1903, Sultan Abdul Hameed the second issued an executive order to establish the Ottoman Medical School in Damascus. Official inauguration took place on August 31 of the same year at al-Salhia street in Damascus. Actual teaching began two months after the inauguration.

The purpose of this paper is to spread light on the various stages this school went through since its inception, and to reveal its important role in graduating so many physicians and pharmacists, in addition to the founding of the Arabic Medical School of Damascus, and the usage of Arabic language in teaching medical sciences up to date.

Introduction

Before talking about the Ottoman Medical School of Damascus, I would like to briefly mention the two medical schools of Turkey during the nineteenth century, as many Syrian physicians were graduated from, then worked at the Arabic Medical School of Damascus.

1. The Military Shahanian School for Medicine and Pharmacy. Teaching began at this school in 1827, and it was in French until 1880 when itchanged to Ottoman Turkish.

2. The Civilian Shahanian School for Medicine and Pharmacy. Founded in 1836, teaching began in French, then in 1866 it became in Ottoman Turkish. Since 1876 until 1900 (for 25 years) 584 physicians and 442 pharmacists graduated, belonging to many religions and nations including many Syrians, such as: Ahmad Rateb., Reza Said, Sadek Tarabishi, Taher Gazaeri, Abdul Kader Serri and Maichael Shamendi.

The Ottoman Medical School of Damascus:

Since 1897, the Ottoman state decided to establisha number of medical schools in Turkey and in other important cities which were under their rule, as there was a severe deficiency in the number of physicians. Dr. Khayreddin Pasha was commissioned to prepare a comprehensive study, revealing the healthcare situation and its requirements at the regions which the Hegazi railroad line runs.

On January 5 1901, he provided a report that mentioned that this railroad line would create great social and economic developments within the region, requiring the need for many physicians to relocate and live there, so they can tolerate the difficult climate of that area. To achieve this purpose, Dr. Khayreddin Pasha suggested the establishment of a school for medical teaching in Damascus, which would train physicians and pharmacists belonging to that region.

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It seemsthat the thought of establishing a medical school in Damascus was stated by many Ottoman officials. And before Khayreddin Pasha had introduced his report -in view of the fact that in a report of the Shahanian medical society was published on the first of September 1900 on the occasion of the 25th anniversary of Sultan Abdul Hameed 11's hold onpower - the report revealed that a forthcoming school for medical and pharmaceutical teachings will be established in Damascus. This was according to a work plan and an expense estimation which had been agreed.

In this stead, we can also say that the other aim for establishing this school, was to face the American protestant and French medical schools in Beirut, which were founded" in the second half of the nineteenth century for missionary purposes.

On April 3, 1903 Sultan Abdul Hammed II issued an executive order to establish the Ottoman Medical School of Damascus. Official inauguration took place on August 31 of the same year, at Ziver Pasha palace in Salhiya street in Damascus. Actual teaching began two months after the inauguration.

Ziver Pasha palace was a large building, containing many huge halls where chemistry, biology, anatomy and physiology laboratories were equipped for learning, in addition to the teaching halls. Clinical sessions were taking place at what was called AI-Hameedy or foreigners hospital.

We can say this school was the first medical school in modern terms, which was founded by the Ottomen in the Arabic provinces under their rule.

The Ottoman medical school of Damascus provided both medical and pharmaceutical education, both fields were taught in the Ottoman language. Students were receiving lessons to improve their Ottoman language. Among Ottoman language teachers were: Abdul Wahab AI-Engleesi, Abdul Kader AI-Azem and Asa'd Begh Jameel.

Among other teachers of the school include, Ali Reza for dermatology, Moustafa and Mahmoud Gheyath Aldeen for surgery, Orkhan Abdi for internal medicine, Abdullah Al- Kahhal for ophthalmology, Lephor Begh and Moustapha Begh for chemistry, and Said Begh Jameel for physiology.

The teaching duration for medical student was six years; four years were spent in the school building learning the theory, and the last two years were spent between the school and AI-Hameedy hospital, where clinical sessions were delivered to the students in front of the patients' beds.

The number of students in the first year of the school (the year of inauguration) was 25 students, 15 of them were in the medicine department, while 10 were in the pharmacy department. In 1905, this number became 102 students. 56 of them were in the medicine department, and 46 were in the pharmacy department.

These were the numbers which Prof. Ekmeleddin lhsanoglu has mentioned. But Dr. Reza Said (who was contemporary to the school) and Dr. Shawkat AI-Shatti from Syria had stated the number of students in the first year of the school as 40.

In 1912, a new building for the school was founded at the south courtyard of AI-Hameedy hospital, contained a lower- floor for laboratories, and an upper floor for medical and pharmaceutical teaching halls. Students began attending this new building on March 21, 1914.

The First World War and moving the school to Beirut:

In July 1914, the First World War began. Many teachers and students of the medical school were called for military service, so the school was closed until the end of that year.

In 1915, it was clear to the Ottoman officials that it was necessary to graduate many physicians. So they decided to move the school to the French medical school in Beirut, which was completely evacuated because of the war at that time. In 1915, teaching resumed only for the second class students, then in 1916, teaching resumed for all classes, as all the teachers and students were exempted from the military service. The French hospital was used for clinical teaching sessions.

The First World War ended much later, in 1918 and Beirut became occupied by the Allies. The Ottomans had withdrawn from it and Jesuit fathers returned their French medical school.

By this time, the era of the Ottoman medical school of Damascus ended. Therefore, its life span lasted15 years. During this period, 240 physicians, and 289 pharmacists graduated. Most of them were Syrians, few Turks and Armenians who lived in Syria at that time.

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The Arab Medical School of Damascus:

Despite the fact that the Ottoman Medical School, of Damascus had vanished in August 1918 following the First World War, it left a very positive effect. The Arabic Medical School of Damascus was established as a continuation for the Ottoman Medical School in 1919.

Upon termination of the Ottoman Medical School in Damascus and Beirut, more than 100 of its medicine and pharmacy students couldn't continue their studies and most of them were due tograduate few months later. Some of those students referred the issue of the closure to the officials of the first Arab government and tried to persuade them to reopen themedical school. After a long debate it was decided to open a school in Damascus to teach medicine and pharmacy and to be a replacementtfor the Ottoman school. It was decided to resume teaching at the same building after it had been repaired and reequipped.

On January 23 1919, an inauguration took place at the courtyard of AI-Hameedy hospital, and attended by many high rank officials. This school was called "The Arab Medical School".

Teaching was undertaken by many Arab physicians and pharmacists, most of them had graduated either from the Ottoman Medical School of Damascus, or from the medical schools of Istanbul.

Here are some of the teachers names:

Reza Said (1876-1945): Graduated from the military medical school of Istanbul in 1902. he was appointed as the first dean for the Arab Medical School of Damascus.

Ahmad Rateb (1877-1960): Graduated from the military school of Istanbul. He was a surgeon at the Arab Medical School.

lbrahim AI-Satti (1892-1954): Graduated from the Ottoman Medical School. He was the teacher of obstetrics and gynecology.

Abdul Kader Serri (1880-1945): Graduated from the military medical school of Istanbul. He was the teacher of anatomy at the Arab Medical School.

Jameel AI-Khani (1889-1951): Graduated from the Ottoman Medical School of Damascus in 1911. He played an important role in medicine Arabisation.

Abdul Wahab AI-Qanawati (1891-1977): Graduated from the Ottoman Medical School as a pharmacist in 1911. He was the teacher of chemistry at the Arab Medical School.

Hamdi AI-Khayat (1899-1981): Graduated from the Ottoman Medical School in Beirut in 1917. He taught bacteriology at the Arab Medical School.

Housni Sabah (1900-1986): Graduated from the Arab Medical School in 1919. He was the teacher of internal medicine.

Shawkat AI-Shatti (1900-1978): Graduated from the Arab Medicine School in 1921. He was the teacher of histology, embryo logy and pathology.

The Arabic language was used for teaching from the beginning. All medical terms taught in the Ottoman Medical Schools were written in the Arabic alphabet, and mostly were taken from the Arabic medical heritage. Theseare some medical terms:

Sinusitis	التهاب الجيوب	Circulatory System	جهاز الدوران
Scarlet Fever	الحمى القرمزية	Adenitis	التهاب الغدد
Bone Necrosis	نخر العظم	Chronic Diseases	الأمراض المزمنة
Pneumonia	ذات الرئة	Arterial Bleeding	النزف الشرياني
Arthritis	التهاب المفصل	Chickenpox	الجدري الكاذب
Vasculitis	التهاب الأوعية	Acute Diseases	الأمراض الحادة

Conclusion:

In 1903, Sultan Abdul Hammed II issued an executive order to establish the Ottoman Medical School in Damascus. This school provided both medical and pharmaceutical education, both fields were taught in the Ottoman language. This school was the first medical school in modern terms which was founded by the Ottomans in the Arabic provinces under their rule. Despite the fact that this school had vanished in August 1918 following the First World War, it has left a successful legacy. The Arabic- Medical School of Damascus was established as a continuation for that school in 1919 and was able from the beginning to teach in the Arabic language. This is a remarkable achievement and one that continues on to this day, with the Faculty of Medicine in Damascus Univeristy which is in operation today being a successor of this initiative.

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Muslims Achieved the Highest Status in The Fields of Medicine, Math, Philosophy, and all Sciences. What happened?

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Abstract

During the medieval era, Muslim scholars and scientists made significant contributions in fields such as mathematics, astronomy, medicine, law, history, pharmacology, optics, agriculture, and architecture. Institutions such as the House of Wisdom in Baghdad helped bring together scientists and philosophers from various ethnic and religious backgrounds and helped make the city a center for knowledge. Universities in the Muslim world attracted students from around the world. However, during the 11th century, theologians began to oppose the study of philosophy and science, and the withdrawal of support from the government led to a decline in scientific pursuits. By the 15th century, universities no longer taught science and philosophy and very little scientific work was being published. The Ottoman Empire was slow to adopt the printing press, and this also contributed to the decline. The destruction of universities and observatories by fanatical individuals and the effects of colonialism were also factors in the decline.

The paper will discuss how to gain the lost status and prepare young Muslims to become innovators and scientists.

I was asked to present a paper on "Muslim physicians of Spain in the medieval era at the international convention of the Islamic Medical Association of North America which was held in Granada Spain in June 1990. I had to do some research to write this paper as I did not have much knowledge in this area. I wrote about 6 scholars, Al Zaharawi, Ibn Hazam, Ibn Bitar, Ibn Khatib Ibn Rushd, and Ibn Khaldoon[1]. Muslims made a vital contribution to many fields of science, astronomy, mathematics, algebra, law, history, medicine, pharmacology, optics, agriculture, and architecture, Muslim mathematicians created the algebra and algorithms that would enable the building of computers, Muslim doctors examined the human body and found new cures for disease. Muslim astronomers investigated the movements of celestial objects, named the stars, and paved the way for further exploration. Muslim scholars and scientists' contributions helped lift Europe out of the Dark Ages and into the great Renaissance.

Most Westerners believed that the world had plunged into literary ignorance for more than a thousand years after the decline of the Roman Empire in the fifth century. Most Western scholars deliberately ignored the

contributions of Muslim scientists to the world. Unfortunately, most Muslims do not know the great contributions made by Muslim scholars to world civilization.

Muslims are inspired by Quranic verses and prophets' sayings. The first verse of the Quran says "Read! In the Name of your Lord, who has created (all that exists). Has created man from a clot. Read! And your Lord is the Most Generous, Who has taught (the writing) by the pen, has taught man that which he knew not." (96:1-5) A man cannot only read and understand things but can also write them for future use.

When Muslims conquered new territories of the Byzantine empire they were amazed and fascinated by the new fields of knowledge i.e. Science and philosophy. Not only did they acquire new knowledge, but they also made great contributions to science, philosophy, and mathematics for 8 centuries (7-15th). The Abbasid Khalifahs supported education. They established the great institution Bait ul Hikmah (House of Wisdom) in Baghdad, which served as a center for the translation of thousands of books from Greek, Latin, Roman, Chinese, and Indian languages to Arabic. They attracted the best scientists, philosophers, and theologians, irrespective of their ethnic or religious backgrounds. This helped Baghdad become the center for knowledge, culture, and trade.

Great universities were established in the entire Muslim world (Baghdad, Cordoba, Egypt, Iran, Turkey, and Uzbekistan) where students from all over the world were coming to study. These institutions promoted a vibrant intellectual curiosity and freedom of expression which was necessary for scientific inquiry and research. Thousands of scholars have contributed to science, philosophy, and mathematics. Some noted ones are Al-Haytham (physicist), Al-Razi (physician), Ibn Sina (physician), Al Biruni (Astronomy)), Ibn Battuta (traveler), Jaber ibn Hayyam (chemistry), Al-Khwarizmi (mathematics), Al-Tusi (astronomer),Al-Masudi (geographer), Ulugh Bey (astronomer).[2]

Muslims acquired the paper-making technology from the Chinese in the year 751(400 years before Europe) which helped Muslim scholars preserve their knowledge in the form of books. Bayt al-Hikma is believed to have had the biggest library in the world in the 8th century.

I became curious about why the Muslims who reached the pinnacle in the world of knowledge by the 11th century are at the lowest end of the totem pole. I started in-depth studies of the real reason for the downfall. I have read many articles and books and most of them blamed the Mongol attack on Baghdad which destroyed the universities and killed many scholars. Colonialism was postulated as another major reason.
No doubt the destruction of Baghdad and colonialism were the contributing factors, but I found that the main reason was that some theologians opposed the study of philosophy and science as they were concerned that it would weaken the faith. Another major factor was that the Suljuk khalifas who took power from Abbasids were convinced by their Great Vizier Nizam-ul-Mulk that educated people would demand democracy and khalifas would lose their power. The khalifas withdrew their support of great universities teaching science and philosophy. The universities were asked to change the curriculum to Islamic studies, which was developed by Nizam-ul-Mulk (dars-e-Nizamiyya). The more fanatical people even destroyed the laboratories and observatories. The great observatory built by Ulugh Beg was destroyed in 1490 and the great observatory built by Qutbuddin in Istanbul was destroyed in 1580.

The decline of the pursuit of knowledge of science and philosophy started in the 11th century and from the 15th century onwards, no university in the Muslim world was teaching science and philosophy, and very little scientific work was published in the Muslim world. The printing press was invented in Germany in the 15th century, but the Ottoman empire declined to use the printing press until the 17th century as it was declared haram by muftis.

Between the 15th and 18th centuries, Muslims still had great empires: Ottoman, Safavid, and Mughal. They built the empire on physical strength, but they did not keep up with the advances Europe was making in scientific and industrial development. All Muslim countries succumbed to colonialism between the 17-18th century as they could not stop the onslaught of Europeans.

Europeans transferred all intellectual work done by Muslim scientists by translating their work from Arabic to Latin, Greek, and other European languages but they failed to recognize the monumental work done by great Muslim scholars like Al-Haytham, and al-Zaharawi. al-Biruni, Ibn Sina, and Ibn Khaldun due to racism and Eurocentrism maintain their superiority.

After 2 centuries, Muslim countries gained independence in the 20th century from the clutches of colonialism, but they remained educationally backward and behind in industrial and scientific development. Countries that gained independence after the Muslim countries, China,

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Japan, South Korea, Taiwan, and Singapore have made great scientific and industrial progress, leaving the Muslims far behind.

The Progress in Science During the Past Two Centuries.

Electricity has not only removed the darkness, but it is also used now in every home for air conditioning, washer/dryer, microwave, vacuum cleaning, and everything else. The big industries are running on electricity, producing goods for our daily use. The advances made in transportation from bicycles, automobiles, trains, and airplanes, make our life comfortable. Mass communication has developed, which makes it easier to communicate with people all over the world. Now you can talk by using WhatsApp to anybody around the world, free of charge. The computer and the Internet have now become an integral part of our daily life. Science has helped us to conquer many deadly diseases such as Tuberculosis, polio, smallpox, cholera, Typhoid, Malaria, and pneumonia. The new antibiotics are treating illnesses that were untreatable before. Diabetes and heart disease are becoming more manageable, prolonging life spans. Even the advances in glasses and hearing aids make life comfortable. X-rays are helping in the diagnosis of diseases. Complicated operations are performed with few fatalities. Meteorologists can forecast and predict thunderstorms and tornadoes, saving thousands of human lives. Now, the robots are making human life less tiring and more comfortable.

Science has changed our lives, making them safe and comfortable. All these happen in the last two centuries. Did Muslims invent any of the above discoveries I enumerated? We stopped gaining knowledge in science 700 years ago.

1.7 billion Muslims living in 57 Muslim-majority countries in the world constitute 25% of the world's population. However, only 1% of all scientists and 6% of scientific publications are made by Muslims. Muslims spend 0.5% of GDP on research and development vs 10% of spending by Western countries. The literacy rate is 40% in Muslim countries vs 90% in the Western world. The Muslim world has 500 scientists and technologies per million population vs 5000/per million in Western countries. There are 3 Muslim Noble laureates vs 195 Jewish Noble laureates. These statistics show the reason for poverty, backwardness, and undesirable conditions in which Muslims are living nowadays.

The great Muslim scholars of the Medieval years were the product of the educational and cultural environment at its peak in the Muslim world. They did not see any dichotomy between religion and science and their motivation was to gain knowledge for the benefit of mankind.

Colonials reintroduced the subjects of science and technology in universities in Muslim countries. Despite resistance from Muslim ulama, few educationalists supported and promoted scientific education, such as Sir Syed Ahmed Khan in India, and Shaykh Abduh in Egypt. In the last 50 years, three Muslim scientists received the Noble Prize. Unfortunately, they had to do their major research work in Western countries. We have many young scientists emerging who were doing most of the work in Western countries.[3]

Our message to the young Muslim students is: "If our forefathers can do this, we can do it too." If we wish to achieve the same status, we need to restore the intellectual climate which was created by great Muslim scholars of medieval years and stimulate and motivate the young generation to accept the task of becoming innovators and scientists.

Allah says in the Quran, "Allah will never change their condition unless the people first act to change ourselves." (13:11)

The modern Muslim world has made very little contribution to science, and more scientific literature is created in India and Spain than in all the Muslim nations combined. We are preoccupied with the duality of "Dunya" and "Akhirat". We are focusing more on the "Akhirat", however, the two words "Dunya" and "Akhirat" occurred in the Quran 115 times each. We also make a dua several times a day, "Rabbanaaatina fid-dunyahasanatun". Of the great scholars, Ibn Sina was Hafiz-ul-Quran and Ibn Rushd had extensive knowledge of Islamic fiqh. Some great scientists had a deep knowledge of Islam. We need to promote an integrated system of education where science and Islamic morals and values must be taught together. Keeping the balance between the materialistic and spiritual aspects is the purpose of human creation. Accumulation of wealth should not become a primary goal of education and science should not be developed for destructive purposes.

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The word "tafakkur" appeared many times in Quran which means reasoning and critical thinking... Muslims should focus on critical thinking which is the key to scientific research and development. This is what is lacking in the Muslim world. The absence of scientific tempor is the major factor for the decline. With all the wealth at our command, we still depend heavily on Western technology from transportation to communication, healthcare, and everything else. Our life depends upon the technology developed by non-Muslim western countries. The Quran says that the believers have been sent for the betterment of mankind and that they will promote what is good, and prevent what is wrong (3:110). God has given human being the gift of intelligence for critical and rational thinking and advised Muslims to "Amal Salehat", which appears more than "waaaqeemussalatawaaatuz zakat". Quran is directing us to use scientific discoveries and explore nature (created by God) to improve human conditions, and this should be regarded as worship. We need to pay attention to the closure of the Muslim mind which has created a crisis for the ummah all over the world.

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Spirituality and Psychology: Integration of knowledge - Rationale, Realities, Prospects and Challenges

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Abstract

In contemporary times, the integration of theology, spirituality and psychology is becoming more increasingly recognised . The shifting of paradigms in contemporary psychology has been promoted by Muslim academics and clinicians in conjunction with the process of Islāmisation of knowledge in the social sciences, especially in psychology. The rationale for the resurgence of an Islāmic psychology, based on revelation and reason, has its roots in the rejection of secular and "soulless" psychology in its lacunae present in the modern psychological thoughts and the failure to view human nature and development in the holistic dimension. However, the emergence and evolution of an Islāmic psychology cannot exist without the Islāmisation of psychology, in modern parlance, the integration of Islāmic ethics and sciences with psychology knowledge. This paper represents an attempt to examine the problems associated with secular psychology, Islāmisation of knowledge and knowledge integration, and the problems, issues, and the challenges that need to be addressed to make it a reality in the development of an Islāmic psychology.

Introduction

The integration of theology and psychology have been debated since the separation of spirituality and religion with the social sciences, especially with psychology. The alienation and separation between religion and science have been over the source of knowledge, its epistemology and ontology. This controversy is parallel to the faith versus reason divide. Islam and other Abrahamic faiths and scholars of scientific disciplines do not see any contradiction between science and religion. But there is an acknowledgement that both religion and science deal with different realms of human behaviours and experiences but are complementary in most aspects of human development. In addition, having a worldview through both a scientific lens and one of personal faith.

Islam as a theology, has always advocated the mastering various forms of knowledge beginning with the Islāmic traditional knowledge of faith (*Aqeedah*), Islamic jurisprudence (*Shar'iah*)and morals (*Akhlāq*), and knowledge from intuition, rationality and observation. Knowledge integration has always been in the psyche of scholars, theologians and physicians during the Islāmic Renaissance period from the 9th to the late 17th Century. This system of holistic knowledge is an integration of

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transmitted knowledge (*Al-ulum al-naqliyah*) and rational knowledge (*Al-ulum al-aqliyah*), thus providing a dynamic and interactive process. It has been suggested that "The process of bringing the religious and the secular elements together is, from the Islāmic point of view, a restoration of the link between reason and revelation, or between the role of the mind in appreciating (comprehending and interpreting) revelation and guiding the mind by means of the revelation's objectives, its comprehensive and universal outlook, and its living and civilization values. Thus, the joining of the two wings in the pursuit of reform in an intellectual process in its methodology and style." [1]

For example, accepting and adopting an Islāmic or Qur'ânic worldview does not require giving up scientific perspectives. The aims of this paper are to examine the problems associated with secular psychology, the Islāmisation of knowledge and knowledge integration, model of knowledge integration and the problems, issues and challenges faced by Muslim academics and to identify some of the solutions.

What is wrong with secular psychology?

When psychology, the science of the soul, emerges as a separate discipline from its philosophical roots, there was a paradigm shift from the study of the soul to the study of the mind, and eventually to the study of human behaviours and experiences. However, psychology maintains a naturalistic worldview with the influence of Judeo-Christian psychology in disguise. The main schools of thought in psychology were influenced and primed by mostly rationalists who are mainly atheists or agnostics. The rationalist approach, based on reason and evidence, was overtly antagonistic to religion and spirituality, and created a deep fissure between divine revelation and rationality as sources of knowledge. The formal separation of the pseudo-scientific disciplines like psychology from religion was compounded, in part, due to the secularisation of modern society. It has been suggested that "although secularisation has changed the nature and quality of the relationship between psychology and religion it has not undone the relationship altogether. Religion still matters for many people, including psychologists, at some level." [2]. Initially, psychological knowledge and its application in the therapeutic field were subjected to colonisation and later globalisation. Dudgeon and Walker suggests that "Psychology colonises both directly through the imposition of universalising, individualistic constructions of human behaviour and indirectly through the negation" [3]. Thus, psychology was remoulded in the image of Western thoughts, values, worldviews and civilisations.

Psychology, with a reductionistic-oriented science of human behaviour and experiences, produces conflicting and distorted ideas on the concept of the nature of man, alien to the Islamic beliefs and practices, and fails to find solutions to the diseases of society. In addition, the exclusion of the dimension of the soul in psychology in the mind-body dualism is reflected in a statement by Badri [4]. He maintained that "There is no mention at all of the other aspects of man. The religious, the spiritual or at least the transcendental.. Criteria which fail to include the spiritual side of man can only find anchorage in a society blinded by materialism. In such a society, the behaviour of spiritually motivated practising individuals may brand them as misfits, eccentrics or abnormal." One of the major crisis with secular psychology stems from the fact that its failure to recognise peoples' religious experiences and ethical resources. Zarabozo highlighted the main weaknesses of the secular approaches to psychology: "Humans are viewed as independent of their Creator and Lord. Theories are based upon human intellect alone, while discounting revelation from the Creator. Knowledge and research focus only on the tangible aspects of humans, while ignoring the spiritual and unseen elements. Behaviours are generally seen to be determined solely by drives, reflexes, conditioning, and social influences." [5].

Psychological theories and research have influenced many facets of life including the nature of man, personality development, parenting skills, sexual behaviours, laws dealing with alcohol and drug, lifestyles and behaviours and personal responsibilities. This has bias and culturally insensitive consequences for Muslim patients receiving psychological-oriented therapeutic interventions based on Judeo-Christian values which are aligned with Western philosophical traditions, individualistic values and worldview. The most significant conundrum in psychology departments in Muslim majority countries is the Eurocentric orientation of psychology curricula and pedagogy in both undergraduate and postgraduate educational programs, thus, teaching 'Whiteness" psychology " [6]. For many Muslim psychologists, relying on Islāmic theology is tantamount to being unscientific as "They prided themselves as scientists being guided by a neutral value-free scientific method in which there was no room for religious "dogma" [7].The problem with Muslim psychologists is their failure to include ethical behaviours or ethical intelligence within the paradigm of secular psychology. As a consequence, Muslim psychology has

remained in the 'Lizard hole.' The following Hādīth illustrates this point. It was narrated from Abu Hurairah that the Messenger of Allah (ﷺ) said: "You will most certainly follow the ways of those who came before you, arm's length by arm's length, forearm's length by forearm's length, hand span by hand span, until even if they entered a hole of a mastigure (lizard) you will enter it too." They said: "O Messenger of Allah, (do you mean) the Jews and the Christians?" He said: "Who else?" [8] (Ibn Majah). The dilemmas of Muslim psychologists lie on the blind following of Eurocentric, Orientalist and globalised psychology, coined as "psychological *Taqleed*." [9].

From Islmisation of knowledge to knowledge integration

The effects of colonisation, now replaced by globalisation, reduced the influence of Islāmic education to a lower-tier level in many colonised Muslim majority countries. The imposition of an alien system of education significantly exposed Muslims to two parallel and contradictory systems of education namely the Eurocentric and Orientalist system and the traditional Islāmic system (*Madrasahs* and *Ulūm*). This duality produced not only "divided loyalties, confusion in the minds of students and intellectual schizophrenia of the Ummah's educated elites," [10] , but also "Double Consciousness" (the internal conflict experienced by subordinated or colonised groups in an oppressive society) [11].

The Islāmisation of Knowledge movement gained momentum in the 1970's "with the rise of Islāmic awakening (*aṣ-Ṣaḥwah l-ʾIslāmiyyah*), the plight of the Muslim Ummah, the secularisation the educational system in Muslim majority countries, the global re-awakening of Islāmic consciousness, and the concern of Muslim scholars towards the adoption of Western-oriented values and life-styles by Muslims.," [12] and the incompatibility of a reductionist, scientific naturalist and secular traditions in contemporary psychology. However, the emergence, current conceptualisations and the status of Islāmic psychology should be viewed in their broader context, namely, the Islāmisation of Knowledge (IOK) movement. It is within this context that Badri made invaluable contributions to the revival of the Islāmisation of psychology [13]. In contemporary times, the brand name of the Islāmisation of Knowledge has been replaced with the more palatable and acceptable concept of knowledge integration.

Knowledge in the Islāmic traditions is based on holism. That is nature and process of knowledge focuses on "integration, rather than separation, inclusiveness, rather than contraction, harmony, rather than dichotomy, cooperation, rather than conflict, comprehensive excellence, rather than mediocrity, and dynamism, rather than lethargy, are the main thrusts that need to be subtly interwoven into the fabric of Islāmic education." [14].
Kasule refers to the concept of knowledge integration as an evolutionary process that build and add value to existing knowledge. He suggested that "it involves integrating Islāmic moral and epistemological values in the various disciplines of knowledge that are taught." [15]. The themes of combining, sharing, synthesising and merging of knowledge are a necessary condition for knowledge integration. Knowledge integration can also be viewed as a kind of epistemological integration (*al-takamul al-ma'rifi*) [16]. However, this knowledge integration is based on the T*awhīdic* paradigm. In fact, the Islāmic principle of divine oneness, i.e., *Tawhîd,* the unity of the source of knowledge and epistemological integration [17] constitute a frame of reference and foundation for a monotheistic Islāmic psychology.From a historical perspective, the notion of knowledge integration seems to be supported and implemented by early classical Muslims scholars in their quest for knowledge during the Islāmic Renaissance and beyond. Malkawi suggested that the classical Muslim scholars, despite their different school of thought, agreed that "knowledge should be interconnected, complementary, and organically linked to the knowledge of God. In the view of these scholars, the fact that all sciences originate from a single divine source is the foundation for the ultimate integration and unity of knowledge."[18].

Thus, knowledge integration in psychology knowledge is the synthesis of revealed knowledge and empirical knowledge. as well as the transfer of knowledge in teaching practices. Initially, the task is to produce a curriculum that will deliver integrated knowledge of Islāmic sciences and worldview with classical and contemporary knowledge of psychology. Both evidenced-based psychological knowledge and Islāmic intellectual tradition are maintained with adherence to the demands of any prescribed national curriculum. The idea of transformation of integrated knowledge during teaching practices allows us to view knowledge integration as a processual phenomenon. Hence, process of knowledge integration itself can be interpreted as a process of exchanging integrated knowledge between the teacher and the student. For psychology, the process of desecularisation has begun and efforts are being made

to reconstruct psychology based upon an Islāmic epistemological paradigm [19].

Challenges and solutions of knowledge integration

There are key challenges and the realities faced by academics and policy makers for the implementation of knowledge integration in the psychology curriculum and in teaching practices. These challenges and issues include organisational practical challenges, decolonising psychology knowledge challenges, Islāmic commitment challenges and epistemic challenges. This is no meagre task as the dilemmas facing Muslim psychologist are still with us and will remain so for some time to come.

First, organisational practical challenges refer to the many feasibility constraints that limit many organisations and academic institutions to implement knowledge integration in psychology and other social sciences curriculum. Rassool suggested that "In most countries, due to institutional and professional regulations in psychology, counselling and psychotherapy courses, educational institutions are restricted in their attempt to integrate Islāmic psychology in their curricula. Perhaps, that is the rationale behind adopting the 'Sprinkle or Bolt-on' approaches in their curriculum" [20] In fact, in most cases, psychology has been influenced by Freudian's psychoanalysis and phenomenological psychological theories. Ibrahim noted that psychology as an academic and clinical discipline "experiences professional conflicts with psychiatry and education, and to the extent that psychology represents a secular Western perspective, it comes into conflict with traditional Islamic theology." [21]. Thus, the availability of undergraduate psychology courses which are integrated with Islāmic ethics and studies or Islāmic psychology is limited. This means that the Islāmisation of Knowledge movement failed to reach its target audience in the Muslim world. Few universities of the Muslim world provide Islāmic psychology at undergraduate or post graduate levels with the exception of selected universities in Malaysia, Indonesia, Australia and Pakistan. At present there is no standardisation of the scheme of study either to teach Islāmic psychology or Muslim psychology at a national level. Perhaps, the solution lies with the high academic councils that act as a state level coordinating agency for higher educational activities to look into this and take measures and initiatives to review the current scheme of study in psychology and other social sciences. Currently, there are the only two university accredited course globally. For example, the Riphah International University, Pakistan-Advanced Diploma in Islāmic Psychology and Psychotherapy, and the Charles Sturt University's Post Graduate Certificate in Islāmic psychology. .

Decolonisation of psychology is another challenge that needs to be surmounted in order to implement knowledge integration. Decolonisation of psychological knowledge refers to the process of transforming psychology knowledge to an integrated Islāmic psychology which is underpinned by an Islāmic epistemological, ontological, and metaphysical worldview and based on the religion of monotheism, according to the *Creed of Ahlus-Sunnah Wal-Jamā'ah*.
Rassool has developed a model of knowledge integration for the psychology discipline based on six different dimensions: (1) planning, (2) mastering, (3) deconstructing, (4) curriculum mapping, (5) scope /level of integration with Islāmic studies/psychology, and (6) knowledge transfer) A process-driven model of curriculum integration for psychology has also been developed [22].These mechanisms are operated in a systematic logical development in the context of psychology knowledge.

The third challenge is the Islāmic commitment to knowledge integration which refers to the attitudes and in motivational status and readiness to change. This "Islāmic commitment" incorporates the evaluation of whether Muslim psychologists have adequate knowledge, training and experience to decolonise psychology knowledge. This led to the problems of role legitimacy, role adequacy and role conflict to integrate Islāmic psychology and ethics. In most cases, this particular role is not part of their job descriptions or responsibilities. The problem with Muslim psychologists is to do with role adequacy as evidenced in Rassool's study. For Muslim psychologists, role conflict is experienced when being pulled between being a Muslim and being a 'secular' psychologist or those Muslim psychologists still in the 'Lizard hole.' For others there is no role conflict at all between personal and the professional obligations and fulfilling the two statuses in one role. It is plausible that both role adequacy and role legitimacy may constitute important predictors of Muslim psychologists' willingness to engage in the development and teaching of Islāmic psychology

Fourth, epistemic challenges refer to differences in levels and kinds of knowledge that different psychology university lectures possess in Islāmic ethics and studies, and which complicate the successful knowledge integration in both curriculum development and teaching

practices. There is also the possibility of the Muslim psychologists' having a deficit in 'ethical intelligence'[1] which is based on *Taqwa* [God consciousness] and *Itqan* [Pursuit of Excellence]. It has been suggested that "the Muslim psychologist as a therapist or counsellor is a reflection of *Taqwa* and *Itqan*, which also means focusing on briefer approaches of therapeutic interventions based on Islāmic principles. This creates good will in the light of Islāmic values which is more profitable to the Islāmic therapist, and to reject commercialising the sanctity of this healing profession." [23] However, most Muslim academic psychologists, no matter how religious they are in their personal lives, have not been adequately prepared to integrate or teach Islāmic sciences and psychology. In fact, some may even explicitly reject such inclusion because of their secular attitudes, on the mixing of psychology based on western scientific paradigm with Islāmic ethical values. It is the responsibility of the organisational culture to support and exudes a culture of learning, changing, improving, and, most importantly, sharing in the process of knowledge integration at the contents and teaching levels. The provisions of seminars, workshops and continuing professional development in Islāmic psychology and Islāmic sciences are the first priority of the academic institutions.

Conclusion

Knowledge integration is an ongoing process that occurs at many levels, it is a journey of transformation for academic institutions, institutional structures, lecturers, researchers and students. There is no "one-size fits all" blueprint for knowledge and curriculum integration for all disciplines as it may involve lots of different approaches and processes.

Rassool suggested that an integrated curriculum may look very different for the sub-disciplines of psychology, because the curriculum or knowledge integration may not be possible for certain themes [24]. There is a need to be proactive in the evolution and development of knowledge integration in Islāmic psychology. In public health, there is the concept of "upstream" and "downstream" factors. The analogy of the river is used to describe how with the downstream approach to the problem is stationing a man there permanently to rescue people who are drowning in the river. An upstream approach is to teach people to swim before they get into the river in the first place and preventing them from drowning. Our priority should be to focus on undergraduate and postgraduate curriculum in psychology so as we would be able to produce clinical psychologists that could 'swim' within the domain of Islāmic psychology. Teaching them Islāmic psychology, psychotherapy and counselling may be, in most cases, to too late. Unless there is a sense of collective action to enact change, the status quo will prevail. However contextual factors, organisational structure, organisational support, resource implications and policy commitment of the Islāmisation of the social sciences, including psychology need to be addressed at institutional level. Finally, Allah says in the Qur'ân

- *Indeed, Allāh will not change the condition of a people until they change what is in themselves.* (13:11, interpretation of the meaning):

[1] This concept is coined by Professor Dr Anis Ahmad, Vice-Chancellor, Riphah International University, 'Ethical Intelligence' is based on the Islamic concepts of what is acceptable (*Halal*) and what is unacceptable (*Haram*) and solely based on the Qur'an and Sunnah. The lecture on' Psychology: An Islamic Approach' was delivered at the Workshop on 'Islamic Psychology Curriculum Development', 10 February to 13 February 2020, Riphah International University, QIE Campus, Lahore. Pakistan.

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Quantitative evidence supporting the efficacy of Islamic counselling, towards the case for a rethink in mental health provision for UK Muslims.

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Keywords: *Muslim mental health, Islamic counselling Islamic psychotherapy, Islamic psychology, faith-based counselling efficacy, long-term study, spiritualityand mental health.*

Abstract

The following paper presents evidence of the efficacy of Islamic counselling, a faith-based therapeutic approach for working with mental health practised in Muslim communities in the UK. This evidence is based on data from clients analysed three years prior and three years post initial intervention. Noting both the spiritual and psychological reality of the model and the Muslim communities which it serves the paper also discusses concerns regarding the progression route of such a therapeutic model through proof of efficacy and effectiveness to the possibility of mainstreaming.

This paper builds on the chapter on Islamic counselling, in British Muslims,Ethnicity and Health Inequalities published in 2022, which provided evidence of the efficacy of Islamic counselling as demonstrated through a one-year prior one-year post intervention evaluation of the impact of this therapeutic intervention.

Over recent years, there has been a significant rise in publications regarding Muslim mental health, Islamic counselling, Islamic psychotherapy, and Islamic psychology. In this emergent field, there are several theoretical branches. This article presents further evidence supporting the model of Islamic counselling developed by Dharamsi and Maynard in 1996[1]. This is one of the earliest models of Islamic counselling and psychotherapy, a model supported by over 20 years of practice and training of practitioners to a professional level.As well as since 2010 in practice The Lateef Project.A specific Islamic counselling service currently working with Muslim communities in London and Birmingham.

Following on from the one-year prior one-year post evaluation of Islamic counselling cited above, this paperpresents further analysis of the initial cohort of Islamic counselling clients of the Lateef Project through a three-year prior three-year post assessment period (due

[1] Islamic counselling is a faith-based therapeutic model based on core teachings in Islam. The model stems from the Islamic science of Tessawuf as opposed to other models based on Tibb medicine. As an Islamic therapeutic model concerning other therapeutic approaches, it sits between psychodynamic Humanistic and cognitive or behavioural approaches to counselling and psychotherapy. However, being Islamic, it is not an integration of these approaches but a spiritual psycho-emotional psycho-social therapeutic model routed in the teachings of Islam and addressing the variety of the lived Muslim experience. The first published work on Islamic counselling was in 1998 in a BACP (formally the British Association for Counselling) Journal.

to the timing of the analysis, not all the participants had completed a full 3 years since their first contact with Islamic counselling).
This work is also supported by qualitative data from an additional study of clients of The Lateef Project during the 2020/ 2021 covid pandemic (as of yet this is unpublished). Having presented evidence supporting Islamic Counselling,the paperalsoraises questions and concerns relating to the provision of appropriate mental healthcare to the Muslim community within the UK and raises the argument for change within the understanding of Muslim mental health.

Islamic counselling has been practised in the United Kingdom since 1996, originating from the work of Aliya Haeri and Shaykh FadhlallaHaeri.The model of Islamic counselling was further developed by SabnumDharamsi and Abdullah Maynard between 1994 and 1996 leading to the first accredited qualifications in Islamic counselling in 1998, the completion of the first level 4 diploma or professional qualification in Islamic counselling in 2001 and the current provision of training in Islamic psychotherapy.

Since then there has been a selection of authors writing regarding Islamic counselling or psychotherapy and Islamic Psychology including (Maynard 1998) (Haque 2004) (Skinner 2010) (Keshavarzi and Haque 2013) (Abdallah Rothman & Adrian Coyle 2018) what follows relates to the application of the Islamic counselling model of Dharamsi& Maynard.

In support of this model, The Lateef Project was developed initially in 2010 as the primary counselling agency practising Islamic counselling. Through The Lateef Project's provision of Islamic counselling, both the qualitative and quantitative studies of the impact of Islamic counselling referred to have been completed.

Quantitative long-term analysis of Islamic counselling, the methodology

The initial quantitative evaluation of the model was carried out in 2012 with clients referred to the service from The Pearl Medical Centre.A GP surgery in Birmingham with 10,000 patients (7000 of which were Muslim), wherein the Lateef Project had provided an embedded face-to-face counselling service in several community languages from 2011. Patients were referred to The Lateef Project for counselling after experiencing a variety of common mental health problems most often:

- Anxiety with depression
- Anxiety
- Depression
- PTSD

These patients were referred to The Lateef Project over 12 months, presenting with common mental health problems and long-term physical health conditions or MUS (medically unexplained symptoms). Data was initially collected by an independent researcher regarding these NHS patients one year prior / one year post their counselling in intervention regarding their use of secondary health care.

Two years later this data was again collected over the same time scale as the initial independent study and evaluated by the NHS CENTRAL MIDLANDS Commissioning Support Unit in 2014.Here, the acute activity before and after the date of the first Islamic counselling session was evaluated for up to 3 years for each NHS number by codification, speciality, and diagnostic code. The results of this analysis are presented in this paper.

The analysis considered the level of activity in secondary care (inpatient outpatient and A&E) as well as the cost differential regarding secondary care budgets for the 87 clients who had presented to The Lateef Project with common mental health problem(s) and long-term physical health condition or MUS. Activities selected were IP/OP/AE events that took place both before and after 1st counselling contact, between 1011-1314.

Due to the complexity of these presentations, the interventions provided by the Lateef Project with this client group were generally 18 sessions, though with some presentations the interventions were longer,particularlyin some cases where The Lateef Project worked in conjunction with Secondary Mental Health Care. For the analysis, the period of three years was taken both prior to and post the first counselling session.The data presented here shows the overall outcomes of the evaluation.

Quantitative long-term evidence of the efficacy of Islamic counselling, results

The following three tables present the overall results of the 3 years prior three years post analysis.

Activity Before Intervention		
Dataset	Sum of Activity	Sum of Cost
Accident & Emergency	139	£13,134
Inpatient	161	£216,326
Outpatient	722	£81,133
Grand Total	**1022**	**£310,593**

Figure 1 All patient activity and related costs before initial contact with Islamic counselling.

Activity After Intervention		
Dataset	Sum of Activity	Sum of Cost
Accident & Emergency	87	£8,398
Inpatient	67	£79,457
Outpatient	427	£49,482
Grand Total	**581**	**£137,336**

Figure 2 All patient activity and related costs 3 years after initial Islamic counselling intervention.

Difference		
Dataset	% Diff Activity	% Diff Cost
Accident &Emergency	37%	36%
Inpatient	58%	63%
Outpatient	41%	39%
Grand Total	**43%**	**56%**

Figure 3 Difference in activity and difference in relative cost before initial Islamic counselling intervention and 3 years after the initial intervention.

The results of this evaluation show a significant reduction in patient activity in secondary care across all three conditions following up to 3 years of the initial encounter with Islamic counselling, with p scores being less than .05.

Inpatient p score	0.0271224
Outpatient p score	0.0083508
A&E p score	0.0236737

As can also be seen from the above tables, with the reductions in patient activity there are also key reductions in secondary care patient costs over the corresponding times. The above data comes from a small client sample, and it is essential to note that there was not a control group for this research. Large-scale randomised testing concerning Islamic counselling is not possible without further investment in both Islamic counselling itself and its evaluation. The lack of a control group is a design concern.However, this is compensated for by the long-term prior and post analysis to identify the enduring impact of Islamic counselling. What's not clear are the long-term outcomes for patients of the surgery with similar presentations that were not referred to The Lateef Project. Gaining this data was made difficult by the removal of alternative primary care mental health provisions at the time due to patient preference for the Islamic counselling service.

It is of note that in general attempts to identify the efficacy of a therapeutic process are carried out in less complex conditions, (the intervention is generally tested in a sample group sharing one other variable say for example depression with an outcome being measured against the impact of that intervention, in that specific context). However, there are indicators that mental health presentations within the Muslim community are often complex (for example anxiety with depression) accompanied by physical health concerns (with disproportionally high rates of heart and circulatory disease as well as diabetes in many of the larger ethnicity Muslim communities).As well as the correlation between mental ill health and MUS within sections of the Muslim community which lack a linguistic history of discussing mental health. A caveatwith these results is that patients could have been diverted to other services within a community setting - this is something that this report does not capture. What's not clear are the long-term outcomes of patients from the same GP surgery with similar presentations that were not referred to The Lateef Project.

For comparison, this evaluation of the Islamic counselling therapeutic intervention may be considered relative to the outcomes of CBT within current IAPT provision, accepting that these are not like-for-like studies due to the reasons mentioned above.A meta-analysis of the long-term outcomes of CBT with none-specific client groups (van Dis et al 2019) found:

"1 to 6 months and at 6 to 12 months of follow-up for a generalized anxiety disorder (Hedges *g*, 0.07-0.40), panic disorder with or without agoraphobia (Hedges *g*, 0.22-

0.35), social anxiety disorder (Hedges *g*, 0.34-0.60), specific phobia (Hedges *g*, 0.49-0.72), PTSD (Hedges *g*, 0.59-0.72), and OCD (Hedges *g*, 0.70-0.85). After 12-month follow-up, these associations were still significant for generalized anxiety disorder (Hedges *g*, 0.22; number of studies [*k*] = 10), social anxiety disorder (Hedges *g*, 0.42; *k* = 3), and PTSD (Hedges *g*, 0.84; *k* = 5), but not for panic disorder with or without agoraphobia (*k* = 5) and could not be calculated for specific phobia (*k* = 1) and OCD (*k* = 0). Relapse rates after 3 to 12 months were 0% to 14% but were reported in only 6 randomized clinical trials (predominantly for panic disorder with or without agoraphobia)."

Discussion and conclusion

A limitation of the quantitative evaluation of Islamic counselling in comparison to the van Dis data is the inability in the above Islamic counselling study to provide more granular information regarding the specific forms of anxiety that were present in a similar way. It is also noted that these comparative studies use different timeframes and analytical tools. The above research indicates that regarding Islamic counselling more specific research on the efficacy/ effectiveness of the model is advisable.

There is unfortunately a lack of like-for-like comparative data concerning Muslim presentations of common mental health problems and the impact of treatment. Currently, most of the material in print regarding Muslim mental health still documents the nature of Muslim mental health presentation or its frequency (Altalib et al 2019)(Ciftci 2012).Significantly the Altalib et al meta-analysis indicates how the papers written globally in English on Muslim mental health, not only disproportionately few (a comparison is made between the global output on Muslim mental health and the number of papers one western university would have published on mental health generically in the same timeframe); but more concerning is their identification of the skewing of the material covered by the majority of publications towards more extreme presentations with the implications this has. With most publications in English on Muslim mental health concerning severe mental health, it is difficult to identify baseline levels or even core understandings of how common mental health conditions present in the Muslim community.

This is significant if only regarding the high correlation between common mental health problems and MUS in the Muslim community.

With Muslims accounting for almost 5% of the UK population in the last census and the lack of baseline knowledge regarding Muslim mental health, where does the responsibility lie to facilitate appropriate research on the presentation of Muslim mental ill health and in that context-appropriate treatment? Who will and how will that be championed?

Concerns regarding the difficulty of maintaining mental wellbeing for Muslims considering factors such as Islamophobia, racism, and class in the UK, in the context of existing mental health provision have been documented (Maynard 2022, Maynard 2022). Yet the workabove presents quantitative indications of an alternative effective approach to psychological wellbeing within Muslim communities. However, within the current statutory mental health framework, it raises questions relating to how this work would be repeated for further analysis, revised regarding more common research frameworks, upscaled or mainstreamed. While the poor recovery rates of Muslims concerning mental health is a known fact within the NHS, there appears to be no strategic response to this at present (NHS 2020), this raises key concerns regarding a health inequality which should be addressed under equalities legislation.

At the time of writing, the above work is one of two evidence-based approaches to Muslim mental health in the UK known to the author. The other model (Mir 2019) is a culturally adapted form of CBT. Islamic counselling would appear to be the only faith-based therapeutic intervention originating from Islamic teachings which address mental wellbeing within the context of Islamic spirituality. However,the above study indicates the efficacy of this model concerning the Muslim experience of common mental health problems. Muslim's lives encompass the spiritual as well as the psychological and social reality. In the psychological worlds of Muslim clients, the lived experience, that holds their mental wellbeing is a rich environment. More research is required regarding the relationships between Islamic spirituality and mental wellbeing, as well as the subtle relationships between Islamic counselling and the psycho-spirituality of Muslim mental health.

The work above has clear limitations, yet in the context of prevailing mental health provision and its impact on Muslim wellbeing within the UK, this work indicates a potential way forward which benefits both Muslim clients and NHS provision. In being evidence-based and having been practised for over 20 years this model of Islamic counselling sits apart from much of the more recent Islamic approaches to Muslim mental wellbeing.

Yet still, there are concerns and questions regarding the process necessary to increase the evidence base of this model and with that its provision to the wider Muslim community. Currently, the standard way that NICE assesses therapeutic interventions is through large-scale randomised double-blind trials. Such a procedure is not possible when one voluntary agency working in partnership with the NHS provides most of the evidence to support the therapeutic intervention. Which then begs the question what would the route be for a spiritual psychotherapeutic model such as this to prove its efficacy and effectiveness, to reach a greater proportion of the UK Muslim communities?

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Relief

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Six days in Southern Turkey after the Earthquake – A Personal Reflection

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The US Geological Survey (USGS) reported a M7.8 and M7.5 Earthquake Sequence struck near Nurdağı, Turkey (Türkiye) on February 6, 2023. The earthquake and its aftershocks affected many regions in southern Turkey and Northwest Syria,leading to a death toll that surpassed 50,000 in total (Reuters).

The scale of destruction and the rapidly-increasing number of victims shocked me.The affected areas were home to many disadvantaged Syrian refugees who fled and were displaced multiple times in war-torn Syria before they could finally find peace. The earthquake only added to their misery and suffering.

I did not have to overthink, and I quickly decided to use what was left of my annual leave to visit the affected areas. I knew the demographics well with few friends and contacts on the ground. In addition, I had the advantage of being bilingual (I speak both English and Arabic), which made communication much more straightforward.

I started crowdfunding on Justgiving.com andraised more than £2,000 only one week after launching my page. The support I had from friends, family, and colleagues was overwhelming.

In the first week following the earthquake, the situation on the ground was chaotic and unclear, especially for foreign observers. Planning the flight in such circumstances was challenging. The Turkish Emergency Services (AFAD) declared many airports out of service and unsafe for landing. Others were made available for international aid only and not commercial flights. Finding somewhere to stay was also problematic. The earthquake destroyed many hotels,and the Turkish authorities used the less damaged ones to provide shelter for locals.

Kayseri is a large industrial city in mainland Anatolia. The earthquake did not severely hit the city; its airport was still functioning and open to commercial flights. With the help and guidance of a few friends, I chose Kayseri to start my journey.

First, I rented a car to travel from Kayseri to Kahramanmaraş. Then, we bought sleeping bags, extra food and medicines to take with us. The support I had from locals in Kayseri was beyond imagination: people had very little, but they were donating a lot to take with

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me. In addition, business owners offered us generous discounts when we told them the items would help homeless people in the affected areas.

In Marash, as soon as we arrived, we started exploring and scouting the area driving around looking for anyone who needed help. Unfortunately, as it was only six days after the earthquake, many survivors received little support from the government. Instead, priority was given to people still trapped under collapsed buildings, and much of the international help didnot arrive by then.

Some people had no shelter, while others were taking turnssleeping overnight as what they had could not fit the entire family. This was when the early morning temperatures in Marash would drop below – 5 c. The government had to cut the gas and electricity supply to the city amid concerns aboutpipeline damage and the risk of explosions.

I admitted three children to the hospital: a baby with bronchiolitis, an infant with a severe mucosal fungal infection, and a child with a leg abscess. However,I managed to treat many others without hospital admissions.

I took three packs of bread to one family. They took two and returned one because two were enough. Then, they asked me to give the third to another needy family. I witnessed and experienced many altruistic and courageousbehaviours that were inspiring and demonstrated the very ebst of humanity. Those who suffered displayed empathy with others even though their own circumstances were dire. I cannot wait to go back to go through this rewarding and enriching journey again and be inspired by the work that people on the ground are doing for another. So, please, visit my page on justgiving.com and donate generously.

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Reflecting on my Experience in Organising Paediatric Orthopaedic Missions for Syrian Refugees in Lebanon

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I have organisedand led ten medical missions to Lebanon since 2016 to treat Syrian refugee children with congenital bone, joint and limb deformities who would otherwise have not been able to afford or access treatment.

I trained in the United Kingdom 1996-2006 and returned to practice in Damascus, Syria in 2006, as one of only two paediatric orthopaedic surgeons in the country. In 2012, during the second year of the conflict, I was forcibly displaced from Damascus as it became increasingly difficult to avoid the politicisation of medical care (7). I was blessed to find employment as a consultant paediatric orthopaedic surgeon in the North of England.

Since resettling in the UK, I have taken the initiative to fundraise through diaspora non-governmental organisations (NGOs) to undertake medical missions to provide paediatric orthopaedic services to displaced Syrians in Lebanon. Lebanon hosts the largest number of refugees per capita in the world (3), with 1.5 million Syrian refugees for Lebanon's population of around 6 million. Most of these refugees live in Lebanon's poorest two regions: northern Lebanon (Akkar) and the Bekaa Valley. They suffer from dire housing, education, and health conditions (2).

Health services especially, have become increasingly inaccessible to them given the prohibitively high costs and the mostly private nature of the health system (4).

Since 2019, the economic and political situation has been getting worse and many Lebanese doctors have left the country, which has made access to treatment even more difficult.

In terms of paediatric orthopaedic services, developmental dysplasia of the hip (DDH) is very common between Syrian refugees in Lebanon for different reasons;swaddling is still very common unfortunatelyas is intermarriage (endogamy) (9). However, there is no screening system to make the diagnosis early, though DDH can be treated conservatively with a splint(8). Congenital Talipes Equinovarus CTEV (club foot) is another deformity that is not uncommon among Syrian refugees, unfortunately unnecessary surgical procedures are still prescribed locallywhen alternative serial casting and percutaneous tenotomy provides much better and more cost-efficient results.

To be able to help address these local challenges in my speciality area, I have been conducting short medical missions to Lebanon that generally last around 7 days and consist of around 2 days for a screening clinic and 5 operating days. During these 7 days I would generally see around 80 patients and perform around 20 procedures.

The first step in organising these missionswas to find a diaspora NGO that could support my mission in terms of providing the equipment, venue, and logistics necessary (administratively) plus/minus financially. The organisations that have supported me include the Syrian British Medical Society (SBMS), the Syrian American Medical Society (SAMS) Syria Relief, Action for Humanity, and Multi-Aid Programs (MAPS).

On more than one occasion when the NGO could not cover the costs of the mission, I had to fundraise through social media and close friends.

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Secondly, an essential piece of the puzzle was a local NGO in Lebanon (MAPs) that would advertise to potential patients about the medical mission on social media, around a month before the mission. Parents could upload the medical reports and imaging of their children to the NGO. I then did the patient triage and chose the children who I felt would benefit most from the mission.

Thirdly, in Lebanon I always worked with a local general orthopaedic surgeon who would physically screen patients and assist in performing procedures once I was in Lebanon. On one hand, this was a learning opportunity for us both, as I would learn more about local practice, and they would consolidate their skills in paediatric orthopaedics. On the other hand, this surgeon could follow up the patients and we would then discuss the outcome of the procedures after I had come back to the UK. The organisations that have supported me include the Syrian British Medical Society (SBMS), the Syrian American Medical Society (SAMS) Syria Relief, Action for Humanity, and Multi-Aid Programs (MAPS).

More specifically, I have used my visits not only to treat patients but to train local surgeons on *Ponseti*serial casting to treat CTEV from the early stages (1). Additionally, we have worked onthe use of ultrasounds screening for early diagnosis of DDH and making*Pavlik Harness* splint available to treat DDH from early weeks, to prevent the need for further surgical interventions (8).

On several occasions, I managed to give lectures and discus clinical cases with local Orthopaedic Surgeons.

On reflection against my practice in the UK, the longer treatment is delayed, the worse deformities children suffer of as well as increased complexity, complication and hence prognosis of further treatment. In the UK, I very occasionally face late presentation missed diagnosis cases.

These are dealt with very swiftly, through an urgent waiting list, to be treated within a couple of months. Unfortunately, in Lebanon most of the children I saw, had been diagnosed and treatment had been planned but parents could not afford it, theywould see their children deteriorating and their mobility getting worse but would know that there was nothing they can do about it.

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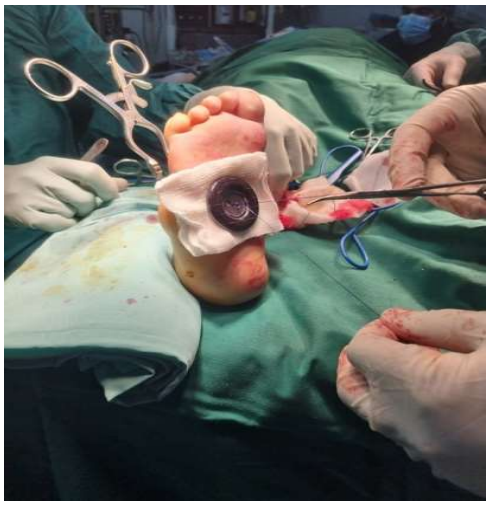
A significant part of the challenge is that it is never easy to work in different hospitals with differing systems, equipment and staff. I had to adapt my surgical technique to suit whatever is available, without compromising the outcome. I had to tailor some devices to facilitate my work like a hip spica table.



I have shared these steps and my experience in organising medical missions in the hope that they may be of use to others who consider sharing their clinical expertise with the countries they come from, and with other places where they are most needed. UK-trained physicians have a long history of participating in medical missions to places that most need them, though normally these efforts are led by organisations. My experience is that it is possible for the individual physician to take the initiative and that support will follow. Additionally, it is notable that focusing on a specific geography and need, for a significant amount of time, plants the seeds of sustainability. For me this has manifested in the ability to transfer knowledge with local surgeons, follow-up patients, and build lasting relationships with organisations.

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Research

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Effect of COVID-19 on Organ Donation and Transplantation in BAME (Black, Asian, Mixed races and Ethnic Minorities) Community.

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Keywords:*Covid-19 , organ donation, transplantation, BAME, ethnic minority*

This article provides detailed information how COVID-19 affected organ donation and transplantation in BAME community (non-white communities in UK), which is already hesitant to sign up for NHS Organ Donation Register due to religious reasons or decreased awareness of the topic.A number of educational public forums have been held across UK in the past years, incorporating religious leaders to educate and clear the confusions regarding religious permissibility. There is a significant shortage of organ donors from Black, Asian and Mixed race Ethnic (BAME) groups in the United Kingdom (UK) despite numerous public education campaigns. BAME groups represent 14% of the British population, (Office for National Statistics, 2011a) but only 7% of the opt-in NHS Organ Donation Register, and 31% of patients on the transplant waiting list (NHS Blood and Transplant, 2019)[1].

The data evaluated includes registrations on the NHS Organ Donor Register (ODR), deceased and living organ donors, transplant recipients, patients and deaths on the transplant lists and waiting times to transplant. Developments in relation to potential organ donors, including donation consent/authorisation rates, are also reported.The COVID-19 pandemic has led to unique challenges for organ donation and transplantation. Apprehensions about the ability to care for transplant recipients, as the resources were being used for patients in the pandemic, and the risk versus benefit for immune-compromised transplant recipients, have led to a major reduction in the number of organ transplants carried out.

From 1st April, 2020 to 31st March, 2021, the population of UK was approximately 67,000,000. Total UK deaths were approx. 680,000. Out of these, potential BAME donors were 849 and actual BAME donors were 146 (including 62 living donors). However, the number of BAME transplants were 767 and waiting list was found to be 1237. The main reasons BAME families gave for declining consent/authorisation for organ donation were that they felt it was against their religious/cultural beliefs or they were unsure whether the patient would have agreed to donation. Survey results of BAME communities show that not knowing enough about organ donation is also a major barrier to organ donation[2].

The number of BAME deceased organ donors fell by 25% from 112 in 2019/20 to 84 in 2020/21. The number of BAME living donors had remained at approx. 140-160 per year between 2016/17 and 2019/20, representing 14% of all living organ donors. COVID-19 also had an impact on living donation with BAME living donors falling by 61% to 62 donors in 2020/21. The number of transplants in BAME people had increased by 23% over the previous 4 years, representing 25% of all transplants. The numbers

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fell from 1204 in 2019/20 to 767 in 2020/21 due to COVID-19[2].

If we look at the Organ Donor Register (ODR) (Table 1.1), it shows us the number of opt-in registrations per year by ethnicity. In 2019/20, 92.2% of registrations with ethnicity were recorded by white people, 3.7% by Asians, 1.1% by Black and 2.1% by other mixed ethnicities.

After covid we can notice a significant decline in the percentage of registrations; in 2020/21, 90.9% of registrations with ethnicity recorded were by white people, 4.3% from Asian, 1.2% from black and 2.5% from mixed race[2].

Ethnicity of all ODR opt-in registrations by year of registration[1], 1 April 2016 - 31 March 2021

		2016/17		2017/18		2018/19		2019/20		2020/21	
		N	%	N	%	N	%	N	%	N	%
White	British	301,917	84.9	381,028	85.1	400,442	85.5	268,290	83.9	174,513	81.2
	Irish	9,502	2.7	9,929	2.2	11,645	2.5	8,384	2.6	3,845	1.8
	Other	20,140	5.7	23,681	5.3	23,123	4.9	18,033	5.6	16,983	7.9
	Total	**331,559**	**93.2**	**414,638**	**92.6**	**435,210**	**92.9**	**294,707**	**92.2**	**195,341**	**90.9**
Asian	Indian	6,443	1.8	8,726	1.9	9,495	2	6,957	2.2	5,146	2.4
	Pakistani	1,362	0.4	1,635	0.4	1,546	0.3	1,259	0.4	929	0.4
	Bangladeshi	328	0.1	464	0.1	430	0.1	348	0.1	306	0.1
	Other	2,992	0.8	4,096	0.9	3,965	0.8	3,167	1.0	2,800	1.3
	Total	**11,125**	**3.1**	**14,921**	**3.3**	**15,436**	**3.3**	**11,731**	**3.7**	**9,181**	**4.3**
Black	Caribbean	1,458	0.4	1,890	0.4	1,888	0.4	1,439	0.5	874	0.4
	African	1,617	0.5	2,387	0.5	2,325	0.5	1,730	0.5	1,360	0.6
	Other	248	0.1	307	0.1	331	0.1	273	0.1	334	0.2
	Total	**3,323**	**0.9**	**4,584**	**1.0**	**4,544**	**1**	**3,442**	**1.1**	**2,568**	**1.2**
Mixed	White/Black African	707	0.2	964	0.2	967	0.2	777	0.2	710	0.3
	White/Black Caribbean	2,041	0.6	2,635	0.6	2,803	0.6	1,980	0.6	1,328	0.6
	White/Asian	2,086	0.6	2,771	0.6	2,768	0.6	2,054	0.6	1,529	0.7
	Other	1,812	0.5	2,501	0.6	2,590	0.6	2,030	0.6	1,699	0.8
	Total	**6,646**	**1.9**	**8,871**	**2.0**	**9,128**	**1.9**	**6,841**	**2.1**	**5,266**	**2.5**
Chinese		1,114	0.3	1,513	0.3	1,391	0.3	1,056	0.3	866	0.4
Other		1,985	0.6	3,134	0.7	2,721	0.6	1,921	0.6	1,702	0.8
Total reported		355,752	100.0	447,661	100.0	468,430	100	319,698	100.0	214,924	100.0
Not reported		1,004,320	73.8	872,308	66.1	941,998	66.8	975,177	75.3	846,998	79.8
TOTAL OPT-IN REGISTRATIONS (incl. known duplicates/deaths)		**1,360,072**		**1,319,969**		**1,410,428**		**1,294,875**		**1,061,922**	
TOTAL OPT-IN REGISTRATIONS (excl. known duplicates/deaths)		**925,794**		**1,024,664**		**1,230,560**		**1,039,485**		**827,777**	

[1] Most sources of registration onto the ODR provided by NHSBT's partners do not have an option to record or report ethnicity

Table 1.1

ODR also tells us the number of opt-out registrations per year by ethnicity from 1 April 2018 to 31 March 2021 (Table 1.2).In 2020/21, surprisingly the majority of opt-out registrations were among white people (72.6%), followed by Asian people (16%), black people (6.4%) and other mixed ethnicities (2.3%)[2].

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Ethnicity of all ODR opt-out registrations by year of registration, 1 April 2018 - 31 March 2021

		2016/17		2017/18		2018/19		2019/20		2020/21	
		N	%	N	%	N	%	N	%	N	%
White	British	17,004	74.2	19,704	6.9	20,736	18.6	161,410	23.0	274,165	65.8
	Irish	199	0.9	322	0.1	315	0.3	1,857	0.3	3,327	0.8
	Other	1,161	5.1	2,916	1.0	2,422	2.2	16,740	2.4	25,202	6.0
	Total	**18,364**	**80.2**	**22,942**	**8.0**	**23,473**	**21.0**	**180,007**	**25.7**	**302,694**	**72.6**
Asian	Indian	585	2.6	39,327	13.7	7,720	6.9	46,090	6.6	13,094	3.1
	Pakistani	1,018	4.4	105,791	36.8	31,968	28.6	207,420	29.6	32,717	7.9
	Bangladeshi	371	1.6	50,782	17.7	17,221	15.4	78,960	11.3	12,160	2.9
	Other	519	2.3	10,554	3.7	3,471	3.1	31,140	4.4	10,002	2.4
	Total	**2,493**	**10.9**	**206,454**	**71.8**	**60,380**	**54.1**	**363,610**	**51.9**	**67,973**	**16.3**
Black	Caribbean	357	1.6	21,269	7.4	9,333	8.4	38,930	5.6	9,560	2.3
	African	739	3.2	19,903	6.9	10,888	9.7	71,392	10.2	14,541	3.5
	Other	82	0.4	3,459	1.2	1,591	1.4	8,654	1.2	2,607	0.6
	Total	**1,178**	**5.1**	**44,631**	**15.5**	**21,812**	**19.5**	**118,976**	**17.0**	**26,708**	**6.4**
Mixed	White/Black Caribbean	84	0.4	1,954	0.7	928	0.8	6,159	0.9	2,784	0.7
	White/Black African	65	0.3	788	0.3	437	0.4	2,632	0.4	1,146	0.3
	White/Asian	74	0.3	1,819	0.6	634	0.6	3,900	0.6	1,955	0.5
	Other	110	0.5	3,160	1.1	1,264	1.1	7,883	1.1	3,498	0.8
	Total	**333**	**1.5**	**7,721**	**2.7**	**3,263**	**2.9**	**20,574**	**2.9**	**9,383**	**2.3**
Chinese		162	0.7	304	0.1	295	0.3	1,256	0.2	2,413	0.6
Other		375	1.6	5,510	1.9	2,476	2.2	16,486	2.4	7,539	1.8
Total reported		22,905	100.0	287,562	100.0	111,699	100.0	700,909	100.0	416,710	100.0
Not reported		2,407	9.5	22,659	7.3	12,626	10.2	153,191	17.9	85,757	17.1
TOTAL OPT-OUT REGISTRATIONS (incl. known duplicates/deaths)		**25,312**		**310,221**		**124,325**		**854,100**		**502,467**	
TOTAL OPT-OUT REGISTRATIONS (excl. known duplicates/deaths)		**25,201**		**303,362**		**122,019**		**821,701**		**483,684**	

Table 1.

NHS Blood and Transplant (NHSBT) capture information about potential organ donors through the Potential Donor Audit (PDA). This audit is of all patient deaths in UK Intensive Care Units and emergency departments, excluding deaths on wards and any patients over 80 years of age. The PDA provides information about the organ donation process and identifies potential barriers to organ donation.The data shows that,due to COVID-19, the number of white and BAME eligible DBD (Donors after Brain Death) donors has fallen to 1098 and 277 respectively and that the number of white and BAME eligible consented/authorised DBD donors has fallen to 816 and 66 respectively.The impact of COVID-19 has also meant that both the number of eligible DCD (Donors after Circulatory Death) donors and eligible consented/authorised DCD donors have fallen considerably (Table 1.3)[2].

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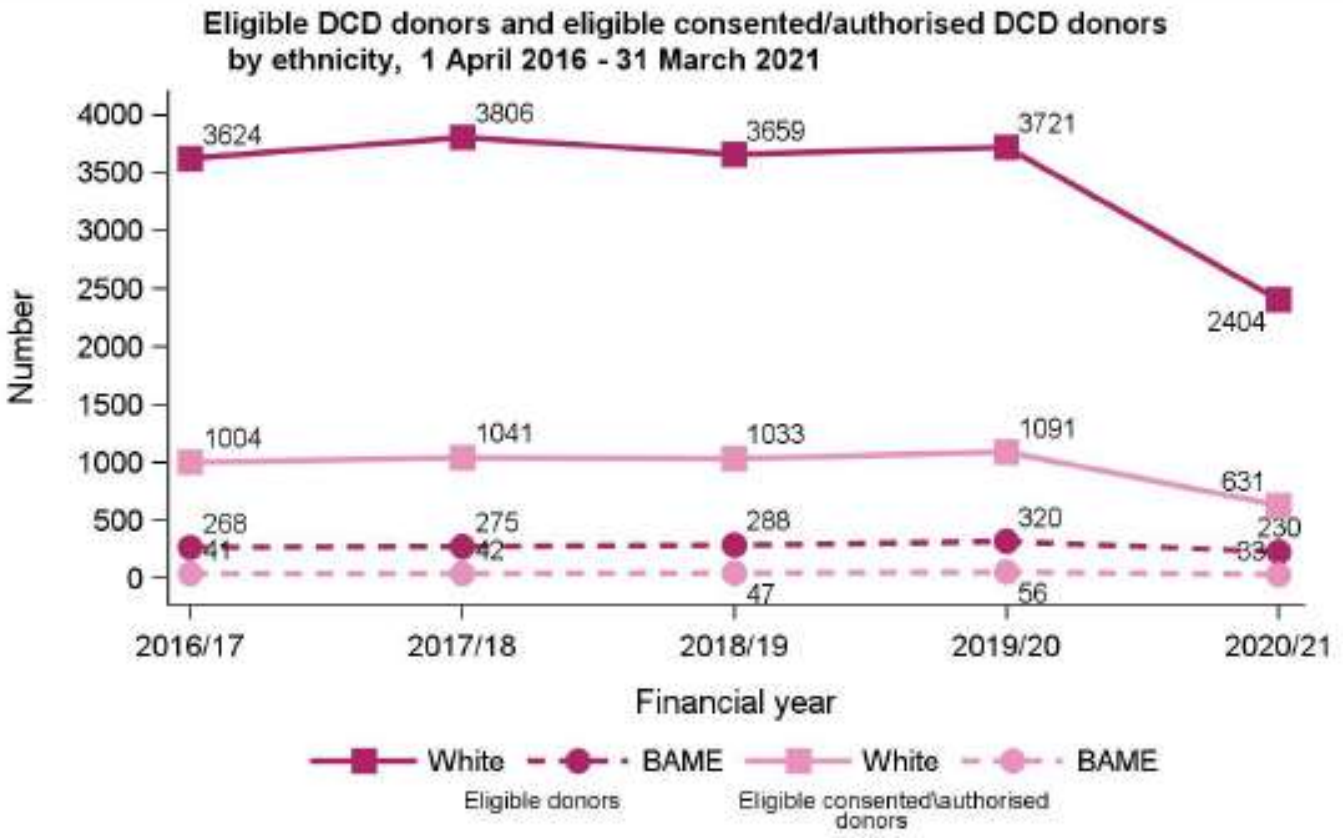

Table 1.3

Conclusion

We highlight the unmet need in raising awareness about organs donation in the BAME community to allow informed choice. The covid pandemic has exacerbated the pre-existing discrepancy of differential organ transplant rates between BAME and White patients. In keeping with the down turn in all transplant activity during the covid pandemic BAME patients have had a further negative impact and therefore a redoubling of efforts is required to bridge the gap and increase the rates of BAME organ transplant to be on par with White counterparts.

We call for a new strategy of levelling up in BAME organ transplant rates to prevent health inequality.

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Book Review

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The Role of Muslims in the development of Phytomedicine and Pharmacy.

(By Mohammed Ali Al-Bar – Published in 1999)

Reviewed by: Dr. Bana Shriky, *BPharm, MSc, PhD, AFHEA, Postdoctoral Research Associate, University of Bradford.*

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The role of Muslims in the development of Phytomedicine and Pharmacy book was published in 1999 by Dar Al Manarah. This small book is written in Modern Standard Arabic with quotes from Quran and prophetic narrations mainly in the introduction, in addition to statements from a diverse group of cited authors.

The book is divided into 10 sections that start with the principles of Islamic philosophy that drove the scientific movement in general, and the role it has played over 8 centuries up to the end of golden Islamic ages in progressing the pharmaceutical field.

The first three sections delve into the Islamic attitudes towards science. The author starts with the Quranic injunctions and Hadiths encouraging to acquire and spread knowledge, including the study of human health and seeking new cures, placing an equal importance on both the physical and mental aspects. As was customary at that time, simple natural medicinal remedies were used to treat various ailments including Honey, Nigella, Salvadora persica, truffles, Aloe vera and many more. The author highlights the recent resurgence of herbalism and eastern phytotherapy research in academia, citing works by himself (on Senna, Cress and dill), Ahmad El-Kadi (on Nigella) and Hassan Chamsi-Pasha (on Honey) supporting their scientifically proven effectiveness.

The author dedicated the fourth section to discuss the drivers of the medical revolution seen throughout the era, which in his opinion are to be attributed to five factors:

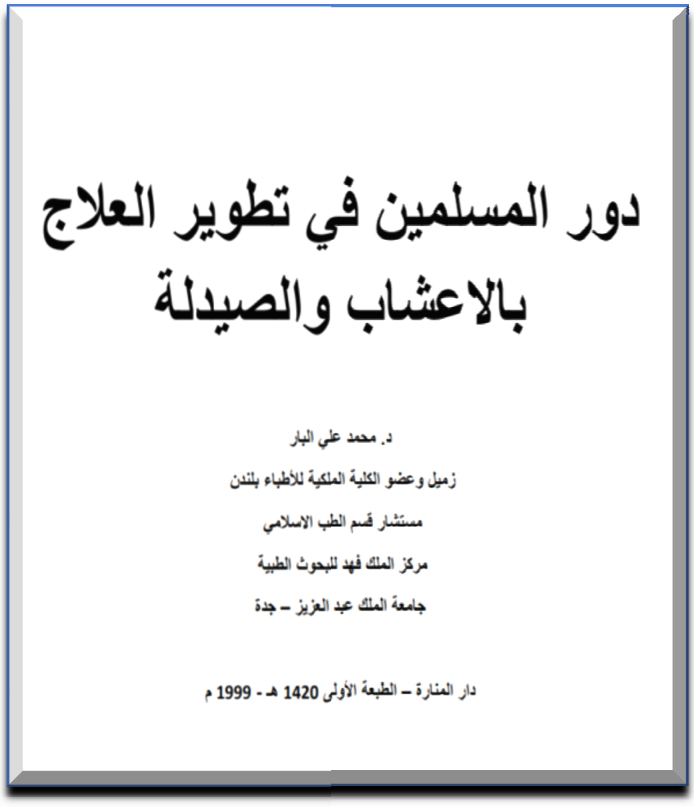
(1) Religious influence, the Islamic teaching encouraging to seek knowledge.

(2) Openness to ideas and a high level of scientific integrity.

(3) State sponsorship, large budgets were allocated for the translation movement that helped preserving a lot of the human heritage, the aftermath is of this can be seen in reverse translations from Greek to Arabic then Latin.

(4) The large interest in medical science, even by philosophers (Ibn Sina 'Avicenna'), religious scholars (Al-Shafi'i) and legistrators (Ibn Rushd 'Averroes').

(5) Equality among the state citizens, regardless of their origin or faith. This generated an inclusive environment that fostered cultural and scientific exchanges.



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Section fiveis largely connected to the previous section, and it could be viewed as a direct result of points (2) and (4). The healthcare institutions and hospitals (Bimaristan or dar al-shifa) spread across the state from the countryside to big cities, providing free services, and embracing the diversity of both its staff and patients.

The author reports, that back then it was customary for patients discharged from the Qalawun hospital in Cairo to receive 5 golden Dinars as sustenance allowance during recovery as a form of paid leave, and that in its heyday Córdoba alone had 50 major hospitals.

The next three sections share the same theme, the pharmaceutical development accomplished during the era. According to this book, private pharmacies started to appear for the first time in history in 780 in undisclosed locations in the Islamic world.

However, the author does note laborate how these private pharmacies were different from the state-regulated pharmacies established in Baghdad in 754.

The author continues to describe the documented internal design of past pharmacies and the white uniforms pharmacists wore, which seem to resemble modern practices. This included inpatient (hospital) pharmacies that had the capability to prepare and dispense medicine.

Interestingly, neither physicians nor pharmacists were allowed to practice without passing mandatory licensing examinations followed by the Hippocratic Oath.

Additionally, their practice would be continuously regulated and monitored to ensure the healthcare providers performance was up to standards and prevent malpractice. All physicians were required to produce two copies of the drug prescription, one for their records and the other for the pharmacist, which are to be checked in the case of treatment failure or a medical error to penalise the responsible professional.

Then the author focuses on the progress the pharmaceutical science and chemistry underwent during the era. Where the Arab-Muslim pharmacists were the first to publish pharmacopeias in their modern format, an encyclopaedic formulary format, that describes medicine, their indications and doses.

This era witnessed the rise of highly educated pharmaceutical chemists with sophisticated skills, who pioneered the two fields and unlisted various interactions to be used in clinical format including sublimation, crystallisation and the game changer distillation of alcohol by Al Razi .

The author counts a dozen dosage forms those brilliant scientist developed, some still exist to this day including coated tablets, various flavourings and packaging methods. It is even reported that they exploited natural photo and chemical interactions for treatments, examples include bread mould (Penicillium) and heated gypsum mixed with egg white to treat ulcers and was used to make casts, respectively.

Based on the Dioscorides's and Galen's work, generations of botanical pharmacists developed the specialty of pharmacognosy. These pioneers include Abu al-Abbas al-Nabati and his pupil Ibn Bitar who has mentioned and classified 1400 plant/medications, 400 of which never have been reported before him. An honourable mention goes to Al-Idrisi, the renowned geographer, who compiled a medical dictionary that contained the names of the drugs used during his time in 12 languages.

The last two sections discuss the role the cross-cultural Andalusian state played in connecting the medieval Europe with the Arab-Muslim world.

Advances in the Andalusian west only rivalled its sister cities like Cairo, Damascus and Baghdad, but nonetheless Andalusian botanical advances was propped by the large number of brilliant botanists who lived there, including Al-Ghassni who developed a plant taxonomy in the 16th century called Hadiqat al-azhar fi mahiyyat al-ushb wa-l-aqqar (Garden of Flowers in the Explanation of the Character of Herbs and Drugs), that classified plants based on the species, genus and family around the same time as Renaissance books.

This is followed by an ode to Ibn Sina and his book the Canon of Medicine, that remained the standard medical textbook in the Islamic world and Europe until the 18th century.

The author compares the experimental method in drug development used by Ibn Sina and elaborated in the Canon with modern day standards, principles detail similar modern day practices used by drug regulatory authorities.

After addressing regulatory concerns during treatment, the author transition to the standardisation of units across the state to ensure the quality of drugs delivered. This allowed to regulate formulation and doses given to patients citing Al zahrawi (Albucasis) book 'tafsser al awzan wal akyal fi al tib' (the interpretation of units and weights in medicine).

This small book is an easy read, although it could feel repetitive at some parts, and some of the references mentioned are historical documents that need to be cited

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properly for the benefit of the readers, especially since the author cites both Arabic and English texts.

The book named many scientists who excelled in their fields and paved the for the modern day advances.

Knowledge is collective, although the names of many whom were mentioned in the book have been overshadowed and replaced by renaissance and industrial revolution era scientists, but their knowledge lives on. In the words of Newton 'If I have seen further, it is by standing on the shoulders of giants.' If we are to decolonise science, many of the names who have been forgotten need to be brought back to light and taught to the next generation via similar publications.

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Letters to the Editor & Short Communications

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Can eye drops be used during fasting?

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Introduction

Whilst we know about the restrictions around food and drink and oral medication during the month of Ramadan, there is still much confusion about whether eye drops are also prohibited. The importance of taking eye drops, for example, to prevent blindness from glaucoma cannot be overemphasised[1]. Therefore, it is of prime importance toseek to address the question of permissibility of eye drops during Ramadan from an Islamic jurisprudence perspective in order to mollify patients' concerns, thereby helping to reduce non-compliance in a chronic progressive disorder.

Methods:

We have consulted Islamic scholars and the Muslim Council of Britain (MCB) with expertise in jurisprudence who have confirmed that, in the most widely observed Sunni and Shia legal schools, eye drops are not considered to be a cause of breaking the fast (*muftir*) even if traces of taste or colour reach the back of the throat. According to the traditional Hanafi and Shafi'i Sunni positions, eye drops entering the gastro-intestinal tract (*jawf*) via the puncti, and nasolacrimal ducts does not constitute a route of entry which will break a fast [5,6]. The traditional Twelve Shia position is that eye drops are not termed 'food' or 'drink' [7].

However, it is also important to recognise that there are valid religious positions, albeit relatively less observed in the UK, which prohibit the use of eye drops whilst fasting. For those patients who would still be wary of using eye drops during the hours of fasting, we suggested using the morning drops at the time of the pre-dawn repast (*Suhoor*) and the evening drops at the time of breaking the fast (*Iftaar*).

We thought that this would be an acceptable compromise to avoid non-compliance throughout the 1-month period.

Results:

Once we had confirmation from the relevant legal sources about the permissibility of eye drops whilst fasting, we undertook a wide-ranging awareness campaign delivering information to the public through various channels (table 1).

This included press releases, radio broadcasts, social media and mailshots to hospitals and opticians. Also included were monograms and patient information posters to be displayed at hospitals, opticians, mosques, and community centres (figure 1).

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Table 1 summarises the outlets used for the awareness campaign. Full data were available from 2018, although the campaign was initiated in 2016.

Year	Press release	Radio day	Poster(s)	Other assets	Social media content	Partners	Mailing to hospitals etc
2018	y	y	Y?	None	none	MCB	y
2019	y	y	Y in multiple languages	Fasting calendar with HAREF, info postcards (similar to poster)	minimal	MCB, MDA, BIMA	y
2020	y	y	Y in English	Fasting calendar with HAREF, film	Film and other posts	MCB, MDA, Specsavers	n
2021	y	y	Re-used from prev year	HAREF calendar, film recycled from prev year, digital glaucoma support group in Urdu	Similar toprevious year	Specsavers, MCB	n
2022	y	y	Re-used from previous year			Optometry today, Specsavers	n

***HAREF**:Health equality for ethnically minoritised communities **MCB**: Muslim Council of Britain **MDA**: Muslim Doctors Association*

DISCUSSION AND CONCLUSION:

Studies surveying beliefs of Muslims have shown that between 45.5%-63.7% of Muslims believe that eye drops invalidate a fast [2,3]. This can lead to cancelled clinical visits, insufficient clinical examination, and the potential complications from non-compliance with treatment [4]. Kumar et al. have advised warning patients of potential long-term damaging consequences of not using eye drops to improve compliance [2], however, it is important to recognise that many individuals avoiding eye drops are motivated by what are for most, perceived religious concerns. There is much confusion about this issue amongst Muslims as evidenced by the multitude of questions posed to scholars on on-line Q&A forums such as www.seekershub.com and www.islamqa.info. A strategy to improve eye drop compliance in Ramadan must therefore be based on a strong religious foundation.

While clinicians are not qualified to give religious advice, it is important that they are aware of pertinent religious and cultural factors that influence the choices that their patients make. We hope that clinicians can signpost patients to appropriate individuals or organisations of religious authority who are able to address their concerns. By clarifying the permissibility of eye drops in fasting according to the most widely observed Sunni and Shi'i legal schools as well as emphasising the clinical importance of the medication, we hope that patients can be better informed to make decisions about their treatment and improve compliance. A public-awareness programme to disseminate this information in areas with significant Muslim populations should involve public health, chaplaincy, and communications departments as well as engagement with imams in the local mosques and third-sector organisations.

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Figure 1: Examples of patient information posters used for the awareness campaign (note that the posters were produced in different languages, an example of one being given here).

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