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## JBIMA Editorial

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

Assalamo Alaikom all,

As we look back at 2024, it has been an eventful year. And whilst there is a lot to reflect on, there are a few matters worth considering in more depth. As always, we strive as healthcare professionals to be proactive as opposed to reactive; prevention is better than cure, but we find ourselves in uncharted territory in some areas where we cannot always plan.

Firstly, the controversial assisted dying bill was approved by the House of Commons in late November 2024 in what was, at times, a robust and challenging debate. Only the first step has been taken, and the approved bill has a number of stages where amendments may be introduced and discussed, but this is a big step forward for assisted dying campaigners and also deeply concerning to us as Muslim healthcare professionals. The bill which has passed requires two doctors to assess and verify whether a patient should truly be expected to die **within 6 months**.

As doctors, we took the Hippocratic Oath to save lives, not to end them. There is a real fear that we become part of an assisted dying service where we are making active decisions to allow people to die. This isn't an issue of DNR; it is actively stating that some patients are terminally ill and their death should be brought forward, which fundamentally contradicts the role healthcare professionals play.

As Muslims, we believe in the sanctity of life and that Allah (SWT) is the sole determiner of when life begins and ends. Moreover, NHS resources are surely better directed at improved palliative and terminal care for patients than allowing them to choose to die. If terminally ill patients could access better healthcare that eases their pain to the greatest extent possible, it is likely that they would want to live. The government's own Health Secretary, Wes Streeting, was on record stating that assisted dying would re-allocate resources from areas that the NHS is already struggling with.

Moreover, there is always a fear that a patient may have been coerced or subtly forced into making this decision

to end their life. Signs of abuse and coercion can be difficult to spot and raise red flags about the process.

The ongoing medical catastrophe in Gaza is extremely concerning, and as we look back on 14 months of Israeli bombardment since October 2023, hopes for a ceasefire are as slim as they were earlier in the year. Well over 50,000 Palestinians in Gaza have been killed, and the medical situation as described in previous editions of JBIMA and various articles, is apocalyptic. Al-Shifa hospital, the most well-known in Gaza, is barely recognisable to how it once looked and the hospital is essentially a graveyard. Kamal Adwan Hospital has recently been declared empty by the World Health Organisation (WHO) as Israeli military forced staff and patients to leave. A few days before the New Year, as the WHO was reiterating calls to protect hospitals, the Israeli army detained Dr Hussam Abu Safia the director of one of the last functioning hospitals in Gaza which is a deeply concerning development. The situation is deteriorating, and there a number of articles in this issue that will touch upon this. A ceasefire has to be implemented immediately

Events in the last few weeks in Syria where the regime of Bashar Al-Assad collapsed are worth celebrating, but his demise reminds us of the systematic targeting of hospitals by his regime during the Syrian conflict over the past 14 years. It is deeply ironic how an ophthalmologist, who also spent a short stint training in London, would go on to destroy countless hospitals as President. A mammoth reconstruction effort must now be undertaken in the country, and healthcare professionals from all specialities all have a huge role to play.

Finally, I would like to congratulate the newly elected President of BIMA, Dr Sahira Dar, who also happens to be the first female President of the organisation too. I am looking forward to seeing her develop BIMA's work with stakeholders across the country and strengthen relationships with our partners. I would also like to extend my congratulations to the newly elected BIMA

Council who will support this work and ensure the governance of the organisation remains strong. And a huge “Thank You” to the outgoing President, Dr Salman Waqar, who has been outstanding in the role over the past 2 years. May Allah accept all your good deeds.

We ask Allah to ease the affairs of the people of Gaza and grant them *Sabr*. We also ask Allah to grant us a prosperous 2025 and a year in which we have much to celebrate.

*Wassalam.*

Prof. Sharif Kaf Al-Ghazal  
*JBIMA, Editor in Chief*

## Gaza War and its Bioethical Challenges: Rethinking the Role of Physicians at Times of War

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As the human tragedy in Gaza and the region continues, the impact on hospitals, patients, and healthcare providers has consistently made headlines due to the war-induced damage to healthcare systems. The UN Special Rapporteur on the right to health (1) has emphasized the severity of the situation, stating that “The practice of medicine is under attack” and highlighting that “We are in the darkest time for the right to health in our lifetimes.” In this challenging context, the significance of physicians’ perspectives on the ethical stance toward the conflict becomes particularly noteworthy.

In this article, we focus on the example of “Doctors for IDF Soldiers’ Rights” letter (2), endorsed by over 90 Israeli physicians, which ignited controversy by asserting the Israeli Defence Forces’ (IDF) right and *duty* to target hospitals in Gaza, alleging their use as terrorism headquarters. Signatories contended that prior calls for civilian evacuation sufficiently discharged moral obligations to minimize civilian and non-combatant deaths. In response to this letter, Physicians for Human Rights–Israel (PHRI) (3), backed by over 3,500 members and volunteers, criticised the letter’s argument asserting that it amounts to a “death sentence for patients.” During times of conflict, physicians often assume (and are expected to assume) the role of moral arbiters underscoring the need to preserve life and uphold human dignity in public, professional and political fora.

The assumption is that physicians’ training and practical formation equips them with a unique moral clarity during the ‘fog of war’ and prepares them to sound the clarion call when humanitarian values are violated.

We question whether these assumptions are universally true and whether physicians intrinsically have the moral vision and skills to assume such a weighty mantle. Indeed, as illustrated by the contrasting letters mentioned above it is clear that physicians hold differing stances even on the issue of targeting hospitals and patients in Gaza. Accordingly, we advocate for judiciousness, and caution against excessive reliance on doctors’ voices for moral leadership. We hazard that physicians are not immune to the political frames used by stakeholders to impair moral judgement, that they are prone to being situated within echo chambers that reinforce particular narratives, and may not be as morally formed by medical training as presumed. For example, historical records are replete with instances where medical professionals have been complicit in or coerced into participating in atrocities, such as unethical human experiments and complicit roles in state-sponsored violence.

The limitations of physicians’ moral authority were epitomised by atrocities committed in Nazi Germany, Tuskegee and Guatemala, to name a few.

Drawing insights from this historical context and acknowledging the limitations of physicians as voices of unassailable moral clarity, we propose a more inclusive and ethical deliberation that includes moral philosophers, ethicists, theologians, and other relevant voices. It is especially vital, given the origin and foundations of their discipline, that bioethicists deliberate over and discuss the present conflict to find common moral ground and a shared language through which we can call for the leadership that is required to uphold fundamental bioethical principles and value for human life. Indeed, it was only a short while ago that bioethicists were warned of the “peril of silence” (4) about the ongoing Ukrainian-Russian war.

Experts were called to employ their specialised expertise to assess the war’s moral and human costs and encouraged to resolutely speak out against the loss of human lives. In our view the same applies to this and other conflicts raging across the world. Bioethicists of all stripes should have a prominent voice as diverse disciplinary insights need to be brought together in order for the muddled moral calculus to become clearer.

## Controversial Letter

That said, the Doctors for IDF Soldiers’ Rights letter (5) has triggered another distinct morally-laden question, namely should the role of physicians be extended to assume their public endorsement of a country’s army justifying the targeting of medical facilities within enemy territory. Where physicians have actively contributed to war atrocities, international organizations drafted and issued documents, guidelines and statements with the aim of defining the broad lines for what ethical conduct ought to be in the context of war. Illustratively, in its “Statement in Times of Armed Conflict and Other Situations of Violence” (1956, revised in 2023) (6), the World Medical Association (WMA) adopted an unequivocal position holding that medical ethics is identical in both wartime and peacetime, confirming that the “primary task of the medical profession is to preserve health and save life.” The WMA also adopted a principled position towards the protection of healthcare facilities, especially its “Declaration On the Protection and Integrity of Medical Personnel in Armed Conflicts and Other Situations of Violence” (2011, revised 2022) (7).

It stressed that, in alignment with the Geneva and other international conventions, “healthcare personnel and facilities should *never* be instrumentalised as means of war” and concurrently recommended to “*never* misuse

hospitals and other health facilities for military purposes.” In our view, and that of other colleagues in Israel (8), it appears that this letter has crossed a line by simply making any hospital in Gaza a potentially legitimate military target, which inevitably has led to the loss of life, the destruction of critical life-saving services, and the annihilation of spaces that are sacred to the medical profession.

War often blurs the lines between right and wrong, and the morality of actions becomes ambiguous and contested. Doctors, while experts in their field, may not possess the expertise required to navigate the complex ethical terrain of war. Moreover, over reliance on doctors as moral voices may inadvertently lead to the militarisation of medicine. Furthermore, placing undue reliance on doctors may inadvertently place them in an ethically vulnerable position. Support for any kind of military action erodes trust in the broader healthcare community.

In times of ambiguity and charged emotions, it is prudent to adhere to international codes of ethics crafted with an eye towards broad consensus, such as those of the WMA, rather than discard them.

*Note: Views presented are the authors’ personal perspectives and do not reflect the positions of any affiliated institutions*

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# Assisted Dying- an Update on the United Kingdom Moving to Legalise Physician-Assisted Suicide

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On the 29<sup>th</sup> November 2024, the United Kingdom Houses of Parliament passed the 2<sup>nd</sup> reading of the Terminally Ill Adults (End of Life) Bill (1) – a vital point in the parliamentary process (Fig. 1) to legalise Assisted Dying (Assisted Suicide) in the UK. Proponents of the bill centred emotionally laden arguments on freedom of choice, autonomy, and the relief of suffering deemed to occur despite the best palliative care possible, and reiterated the robustness of safeguards proposed in the bill. Opponents of the bill indicated an illusion of choice presented by the bill - the safeguards would be insufficient in preventing future deaths due to implicit coercion, and structural pressure due to crisis in healthcare, social care and palliative care provision – rendering it easier to access state-assisted suicide than the necessary care to improve quality of life for the dying. The inequity in access and quality of pain management and palliative care, particularly for the marginalised, poor, disabled, and ethnic minorities, was encapsulated by the powerful speech delivered by MP Florence Eshalomi where she declared “*we should be helping people to live comfortable pain-free lives on their own terms, before we think about making it easier for them to die.*”

During the lead-up to the 2<sup>nd</sup> reading, the British Islamic Medical Association advocacy group sought to raise awareness of the proposed assisted dying legislation in

UK jurisdictions. This has included developing a website (2) replete with information resources on assisted dying for Muslim healthcare professionals and Muslim communities, an updated position statement, information webinars, and surveying Muslim healthcare professionals to gather a sense of how strong opposition to assisted dying would be alongside the specific concerns of healthcare professionals. The survey findings showed a clear strong opposition to assisted dying, based on principle, and practical and ethical concerns. A social media campaign was also held in the weeks preceding the bill reading, to educate and encourage communities to engage with their parliamentary representatives on the issue.

Whilst the bill passed by a sizeable majority (330 in favour, 275 against), there was a noticeable division based on the demographic and economic profile of constituencies, with one commentator questioning whether “*assisted suicide was preferred by well-off liberal MPs who think abuse couldn’t possibly happen to them.*” The Islamic theological and jurisprudential positions on physician-assisted suicide have been stated clearly and unambiguously (3). It is a complex social phenomenon, requiring a response which addresses spiritual and ideological concerns underpinning the desire to pre-emptively terminate life, in the face of anticipated or actual end-of-life suffering.



Doubt remains as to whether there will be adequate scrutiny in the next phase of Committee stage to resolve the flaws in the bill, and render it safe for enactment. It also remains to be seen whether the recognition that palliative care must be improved in the UK will translate to increased funding and service protection. Moving forwards, more Muslim healthcare professionals must engage with assisted dying legislation, commit time to understanding the details especially the meaning of different terminology, and advocate for their patients, communities and broader society. Such legislation has far-reaching impacts for clinical practice, medical mistrust, and health inequities, and how society views the lives of the vulnerable and dying.

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## The Legislative Process

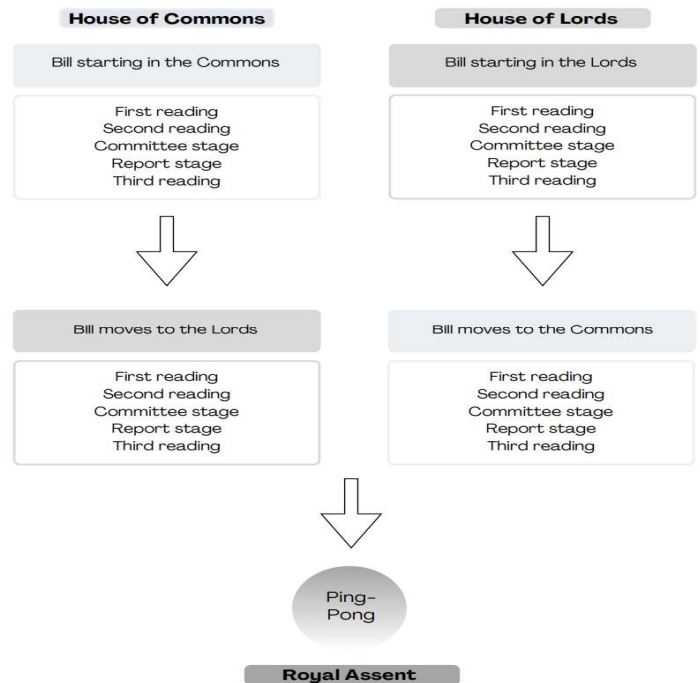


Fig 1 – adapted from <https://www.parliament.uk/about/how/laws/passage-bill/commons/coms-commons-committee-stage/>

# Threads of Healing: Tracing Gauze's Journey from Gaza to Global Staple

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## Abstract

The evolution of gauze from an ancient fabric to a modern medical staple highlights its critical role in wound care. Originating in Gaza, its application extended beyond medical to cultural and religious significance. This article examines the shift from natural remedies to medical gauze, revolutionizing standard wound treatment and infection control. By exploring gauze's advancements, including impregnated materials for improved care, this article fills a research gap on its historical and technological evolution. Contributing to the medical field by underscoring gauze's significance in enhancing healing processes and patient care, emphasizing the need for ongoing innovation in wound management.

## Exploring the Origin of 'Gauze'

Gauze, a widely utilized fabric especially prominent in the medical field, has an etymology deeply connected to the city of Gaza in Palestine. (1) The term "gauze" likely stems from the Arabic word "qazz," meaning "silk," and from the Persian word "kaz," which translates to "raw silk". (1) These terms link back to Gaza, historically recognized for its thriving textile industry situated along the Palestinian coast. (1, 2) Gaza has been continuously inhabited for more than three millennia, evidencing its long and storied past. (2) Its strategic position on the Via Maris, an ancient trade route connecting Egypt with the Levant, established it as a critical centre for commerce and cultural exchange. (2) This location facilitated the dissemination of various goods, including textiles, which were integral to Gaza's economic and historical prominence. (1, 3)

Beyond its commercial importance, Gaza was significant during various historical epochs, including the Philistine era and throughout the Hellenistic, Roman, and Ottoman periods (4) Each of these eras contributed to the city's complex cultural and social dynamics (2). The textile industry in Gaza, renowned for producing exquisite silk garments, played a vital role in the Mediterranean trade networks (2, 4). The evolution of gauze from a luxury fabric to a medical essential is also noteworthy. Originally used in clothing and decorations, gauze became indispensable in medicine due to its lightweight and breathable properties, ideal for dressing wounds and aiding in infection prevention (2).

Its medical application was notably advanced by figures such as Dominique Jean Larrey, a surgeon in Napoleon's army, who promoted its use in surgical settings (2)

## **Gauze Beyond Medicine: Exploring Its Diverse Applications Through History**

Gauze initially gained prominence for its role in wound care but also found extensive use in non-medical domains throughout history (1). Ancient civilizations, such as the Egyptians, primarily utilized gauze-like materials in religious ceremonies and rituals due to their symbolic significance and association with purity (2).

During the Byzantine period, gauze played a crucial role in religious practices, particularly within the Christian Church, where it was employed as altar coverings, vestments, and ceremonial drapery, symbolizing sanctity, and divine presence (3). The translucent and lightweight nature of gauze made it ideal for creating an ethereal atmosphere during religious ceremonies.

Gauze's application in religious contexts extended beyond Christianity, as evidenced by its use in Judaism for covering Torah scrolls and ceremonial objects, reflecting its universal symbolism of reverence and sanctity (4). This cross-cultural adoption of gauze highlights its intrinsic value as a symbol of spiritual connection and cultural significance.

Apart from religious applications, gauze found use in various secular settings, including the arts and fashion. During the Renaissance period, artists utilized gauze as a canvas for delicate paintings and tapestries, showcasing its aesthetic appeal and versatility in artistic endeavours (5). Additionally, gauze fabrics were favoured by fashion designers for their lightweight and breathable qualities, contributing to the creation of elegant and ethereal garments (5, 6).

### **Routes and Barriers: Trade Dynamics of Gauze Distribution**

In the European Middle Ages, the pursuit of gauze—a fabric both delicate and sought after—illustrated the complexities of trade and the thirst for medical advancement. Originating from regions famed for textile craftsmanship, gauze became a symbol of luxury and a necessity for medical care, despite significant barriers posed by geopolitical and religious constraints (7).

Control of Mediterranean trade routes by Muslim traders from the 8th century significantly hampered European trade, with religious and political conflicts further complicating the importation of goods like gauze (8). However, the demand for gauze, fuelled by its medical applications and luxury status, spurred the development

of covert trade networks, ensuring its flow from the Islamic world to Europe (7).

The clandestine nature of gauze trade, necessitated by legal and logistical challenges, highlights the lengths to which merchants would go to secure this valuable fabric (7). This period also saw innovations in gauze, including antimicrobial infusions aimed at enhancing wound care, demonstrating the fabric's enduring relevance in medical practice (8).

### **Gauze's Evolution: From Concept to Medical Staple**

Joseph Lister, a pioneer in antiseptic surgery, played a pivotal role in advancing the use of gauze in medical practice (5)(6). Emphasizing the importance of using sterilized gauze for dressing wounds to mitigate infection risks and improve patient outcomes (5). Lister's contributions marked a significant turning point in the history of wound care, highlighting the critical role of gauze in maintaining a sterile surgical environment and preventing postoperative infections.

Gauze is sterilized through various methods, including autoclaving, gamma irradiation, and ethylene oxide gas sterilization, to eliminate microorganisms and ensure its safety for medical use (5)(10). Sterilization is essential to prevent infections and maintain aseptic conditions during surgical procedures, minimizing the risk of contamination and promoting optimal wound healing. The use of sterile gauze is a fundamental aspect of modern wound care protocols, emphasizing the importance of infection control measures in healthcare settings (5)(10). By adhering to stringent sterilization procedures, healthcare providers can uphold the highest standards of patient safety and ensure the efficacy of gauze in medical practice.

Gauze, with its absorbent and flexible properties, emerged as a preferred material for wound dressing (5)(10). Its open weave structure facilitates air circulation and fluid absorption, creating an optimal environment for wound healing. Moreover, gauze can be easily sterilized, making it suitable for maintaining aseptic conditions during surgical interventions (5)(10). These characteristics make gauze indispensable in medical settings, contributing to improved patient outcomes and enhanced infection control measures. Throughout history, gauze surpassed previous wound care methods due to its effectiveness and versatility (5)(9). Unlike primitive practices that relied on natural substances like honey and herbs, gauze offered a standardized approach to wound management, ensuring consistent and reliable

results. The Greeks and Egyptians, while pioneering early wound care techniques, lacked the scientific foundation to understand germ-related infections fully. The introduction of gauze represented a significant advancement, providing a sterile and absorbent material for dressing wounds, thereby reducing infection risks, and promoting faster healing (5)(9).

### Exploring Gauze Varieties: Woven vs. non-woven

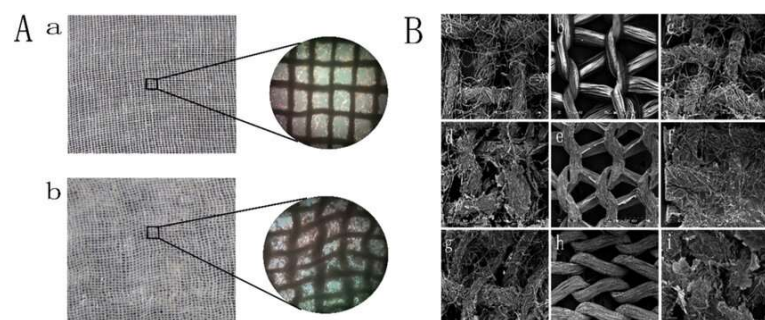
Within the realm of wound care, gauze manifests in two primary varieties: woven and non-woven, each with distinct characteristics and applications (9). Woven gauze, traditionally crafted from cotton or silk, features a structured weave pattern, providing durability and versatility in medical settings (10). Its open-weave design facilitates fluid absorption and air circulation, making it ideal for wound dressings and surgical procedures (9). In contrast, non-woven gauze comprises synthetic fibres bonded together through heat, chemicals, or mechanical processes, offering enhanced absorbency and reduced linting compared to woven counterparts (10). The choice between woven and non-woven gauze depends on various factors, including the specific requirements of the clinical setting and patient needs (9). While woven gauze remains a staple in traditional wound care practices, non-woven alternatives have gained popularity due to their superior absorbent properties and reduced risk of lint contamination (10). Healthcare professionals must consider these factors when selecting the most appropriate gauze type to optimize patient outcomes and ensure effective wound management (9).



*Image 1: Gauze; woven (left) and non-woven (right)– the light, open-weave cotton (or silk) fabric that’s used for both medicine and tailoring – gets its name from the city of Gaza which was a regional centre of weaving and where it originates. Obtained via: Physical Sports Blog. (2017, December 11). First Aid Dressings Explained. Physical Sports Blog. <https://blog.physical-sports.co.uk/2017/12/11/first-aid-dressings-explained/>*

### Advancements Ahead: The Future Landscape of Gauze

Gauze, a cornerstone in wound care throughout history, is poised for transformative advancements driven by modern technology and medical science (9)(10). Emerging impregnated gauzes, incorporating innovative substances like hydrogels and alginates, are revolutionizing wound management by optimizing moisture regulation and enhancing bacterial barrier properties, thereby creating an ideal milieu for accelerated healing (9)(10). These advancements, supported by research elucidating the evolution of gauze in wound care (9), promise enhanced functionality and efficacy in addressing complex wound healing challenges. Studies have demonstrated that these modern gauze formulations not only maintain optimal wound hydration but also facilitate autolytic debridement and facilitate the controlled delivery of antimicrobial agents, expediting the healing process (9)(10). Furthermore, integration of bioactive compounds, such as nanoparticles and growth factors, into gauze materials has shown promising results in stimulating cellular activities essential for tissue repair, thus augmenting wound healing efficacy (9)(10). These advancements represent a significant leap forward in wound care technology, with implications for improved patient outcomes and enhanced healthcare delivery (10).



*Image 2: (A) Macroscopic images of gauze before (a) and after (b) treatment. The circular insets show enlarged images observed by microscopy. (B) Scanning electron microscopy of gauze (a), (d), (g), OC (b), (e), (h), and GP (c), (f), (I). (a), (b), (c) are the control, (d), (e), (f) are the samples in contact with plasma, and (g), (h), (a) are the samples in contact with blood. Obtained: Properties of a new haemostatic gauze prepared with in situ thrombin induction - Scientific Figure on ResearchGate. Available from: [https://www.researchgate.net/figure/A-Macroscopic-images-of-gauze-before-a-and-after-b-treatment-The-circular-insets\\_fig1\\_312254926](https://www.researchgate.net/figure/A-Macroscopic-images-of-gauze-before-a-and-after-b-treatment-The-circular-insets_fig1_312254926) [accessed 18 Apr 2024]*

The future direction of wound care with gauze is characterized by a paradigm shift towards personalized and technologically driven approaches (9)(10). Smart gauzes equipped with embedded sensors are emerging as invaluable tools for real-time monitoring of wound conditions, enabling timely interventions, and optimizing healing outcomes (9)(10). Ongoing research endeavours aim to further augment gauze functionality through the integration of advanced biomaterials and smart technologies, with the goal of revolutionizing wound care management and enhancing patient quality of life (9)(10)

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# Medical Philanthropism on the Pilgrimage Route: Rabia Gülnü Sultan

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## Abstract

This paper explores the medical philanthropy of Rabia Gülnüş (pronounced Gulnush) Sultan in 17<sup>th</sup> century Makkah. To date, little study has been done on Gülnüş Sultan's 1679 hospital *waqfiyyat* (deed of trust), despite the significance it holds for scholarship on Ottoman imperial women's patronage of healthcare in Makkah. As patrons of medical institutions, Ottoman royal women shaped the standards of healthcare in not only imperial cities but also extended their influence to the Islamic pilgrimage route. Moreover, despite the instrumental role of Ottoman imperial women as patrons of healthcare institutions prior to the nineteenth-century, Ottoman medical scholarship neglects their contributions to the emergence of modern public health. This paper redresses this absence in scholarship by studying the transborder medical philanthropism of Rabia Gülnüş Sultan on the *Hajj* route through her 1679 hospital in Makkah.

## 1- Rabia Gülnü Sultan: A Forgotten Sultana

Rabia Gülnüş Sultan (1642-1715) was the Greek Haseki—or imperial consort—of Sultan Mehmed IV (r. 1648-1687) and would later become Valide Sultan to Mustafa II (r. 1695-1703) and Ahmed III (r. 1703-1730). She was born as Eugénie in Rethymno on the island of Crete, which was Venetian-ruled at the time.[1] Gülnüş Sultan's influence swept across the tide of turmoil and fortunes of the 17th to 18th century empire, beginning in 1664, when she became Haseki, to 1687.[2]

The Ottoman Sultana held sway in both state affairs and philanthropical projects across the empire from 1695 up to 1715, when she passed away.[3] Muzaffer Özgüleş has accordingly dubbed her “one of the most influential of Ottoman royal women”, due to her prolonged prestige and standing as Haseki and Valide Sultan.[4] Despite the Sultana's ascendancy, however, Gülnüş Sultan's influence has been enveloped by earlier Queen Mothers, including Hürrem and Turhan Sultan.[5] As a neglected imperial woman in scholarship, studies on Gülnüş Sultan are particularly limited, but her medical patronage in

Makkah has been given far less attention than earlier imperial women.

## 2. A Trail of Philanthropy: Women as Patrons of Healthcare in the Holy Cities

Gülnüş Sultan was not the first Ottoman imperial woman to build a hospital in Makkah, following in the footsteps of another haseki, Hürrem Sultan (d. 1558), in 1550-1551. However, unlike her well-known predecessor, so little is known about Gülnüş Sultan's *dar al-shifa* (hospital) in 1679, that it seemingly disappears from historical discourse on “imperial Ottoman hospitals”.[6] More recently, however, the historian Muzaffer Özgüleş dedicated his 2017 book *Female Patronage and the Architectural Legacy of Gülnüş Sultan* to Gülnüş Sultan's architectural patronage. It is a plausible explanation that the paucity of studies on the 1679 hospital, unlike Haseki Women's hospital and Nurbanu Valide Sultan's hospital, may be due to the floods in Makkah which led to the hospital's reconstruction. This is particularly relevant as although women's hospitals have more recently been the focus of scholarship, even these studies have tended to

focus on women's *dar al-shifain* the urban cities of the empire, and rarely provincial cities.[7]

Gülnüş Sultan's hospital left a stamp on the landscape of Ottoman women's medical institutions in the holy cities; however, her royal patronage followed the medical philanthropy of other imperial women in the Abbasid period, such as Khayzuran (d. 789) and Zubayda (d. 831) who endowed "wells and drinking fountains", followed by Shaghab (d. 933) who is credited with establishing "medical facilities" in the holy cities.[8] Ottoman Sultans commonly endowed hospitals "in major urban centers",[9] while others from the imperial structure would construct edifices in provincial cities, such as, inter alia, royal women. [10] This explains why it was Hürrem Sultan who built the first one in Makkah during the 16th century,[11] followed by the grand vizier Sokullu Mehmet Paşa in 1573, and after one hundred years—Gülnüş Sultan.[12] However, what made Gülnüş Sultan's medical philanthropism on the hajj route even more significant was that it manifested as an intricate web of interconnected projects in the form of a soup kitchen, hospital, and a primary school,[13] which passed on the profits from numerous villages in Egypt to the endowment in Makkah.[14]

Maintaining endowments in Makkah was, furthermore, permeated by sacred significance given that the location of the *dar al-shifa* was Islam's holy city,[15] which frames the Sultana's medical philanthropism as a pious project.[16]

Özgüleş, however, has suggested that the geographical distance from the imperial capital weakened the influence of the royal woman's philanthropy.[17] For instance, apart from the residents of Makkah, pilgrims may have been the primary patients of her endowment, which may have restricted the influence of the endowment for the whole populace.[18]

It could be suggested that the significance of Gülnüş Sultan's medical philanthropy in the seventeenth-century, during the "sultanate of women", was emphasised by the "public culture of sovereignty" that was cultivated by imperial women during this period.[19] However, the pattern of Ottoman imperial women's hospital-building was inherited from earlier Muslim civilisation and consequently did not mark a major shift in royal women's charity.

### 3. The Waqfiyyat of Rabia Gülnüş Sultan: Medical Philanthropy in Makkah

In the seventeenth-century, Ottoman imperial women's patronage of hospitals continued the trend of the medical philanthropy of earlier female patrons, enhancing the healthcare that was accessible to the public.[20] Female endowers bore responsibility towards the empire's subjects that extended beyond the demarcated boundaries of the imperial city to the holy cities of the empire. One form of this medical philanthropism is *waqf* (pl. *awqāf*) in Muslim civilisation, which are "privately owned property" that are "endowed for a charitable purpose in perpetuity".[21] *Waqfiyyat* have been referred to as a "constitution of the Ottoman health care system", but they can also be studied to shed light on imperial women's visions for medicine and healing.[22]

According to Abattouy and Al-Hassani, by establishing *awqāf*, female endowers were "legally empowered" to influence society as they had the prerogative to determine the recipients of medical care in locations of their choice.[23] Gülnüş Sultan's 1679 *waqfiyyat*, which has hitherto not been the focus of study in English scholarship, reveals that the Ottoman Sultana's patronage of healthcare transcended to the pilgrimage route and subsequently suggests that women were central to the development of public health in the holy cities of the empire.

Firstly, the hierarchy of employment within Gülnüş Sultan's hospital conformed to the Galenic-humoral tradition and therefore establishes the parity between employment in male and female *dar al-shifa*. The Chief Physician received the highest salary of 30 paras and 20 loaves of bread daily, which may have been an even greater amount than the "head of the medical school" that Sultan Süleyman employed in his Mosque Complex (1548-1549). Peçevi, for instance, indicates that the Sultan employed Tabib Ahmet Celebi for a salary of "60 akçe" per day,[24] which may have been equivalent to 20 para based on Robert Carson's estimation.[25] Gülnüş Sultan also specified the employment of a "skilled physician of superior qualifications who strives to achieve innovations in medical treatment", and someone who was qualified to be the physician's assistant, for which he would receive "ten loaves of bread and ten paras a day." [26] She further stipulated the employment of "a skilled surgeon strong enough to attend the wounded" in the deed of trust.[27]

Accordingly, women's *dar al-shifa* were no exception to the variety of staff that made up royal hospitals of the empire, employing hundreds in "medical, administrative, and menial duties".[28] Although the present study omits archival budget records, these could also be used to shed

light on employment in women's hospitals.[29] What is known, however, concerning Gülnüş Sultan's *swaqf* is that the total number of employees at the endowments in Jeddah were 28 in the hospital, 55 in the soup kitchen, and 5 in the storehouse, all of whom were remunerated from the endowment's revenue.[30] In addition to their monetary salaries, they were given "bread cooked in the waqf's bakery", while the other thirty-one staff employed at the endowment received "yearly rations of wheat".[31] Accordingly, this suggests that Ottoman royal women's *awqāf* were no different to those of their male counterparts. There was "no distinction" or "textual difference" visible in Ottoman records to differentiate the endower's gender, a phenomenon referred to as "gender-blindness" by Deguilhem.[32] This is significant given that, preceding the 19th century, imperial women's hospitals were not distinguishable from men's which gave Ottoman royal women the influence to shape healthcare in the empire in a manner that did not differ to their male counterparts.[33]

Despite this, Gülnüş Sultan's 1679 medical institution did envision a distinctive connection between medical practices and spirituality, a common trend among royal female endowers tying public health to devout doctors.[34] The royal woman stipulated, for instance, that the Chief Physician be of virtuous character, for which he would receive an enormous payment. She employed a religious head for staff at the hospital, as well as a reciter of prayers, making it a condition that:

someone who is pious and upright [...] always attentive to his business, who is present at religious services morning and evening, and who possesses the strength to give to others as much as they are entitled to shall be the religious head of those employed at the hospital [...] Someone worthy and pious shall serve as the reciter of prayers[35]

Employees at the hospital, moreover, were expected to perfect their moral characteristics; for instance, the steward's "uprightness" was to be "obvious and clear",[36] and the cellarer was to be "uprightly honest".[37] Singer comments that pious endowments may have been "inspired by spiritual, social, economic or political motives".[38] In the case of Gülnüş Sultan's medical patronage, the hospital employed pietistic staff to cultivate this ethos in medicine, which evidences that the patronage of the imperial women was imbued with devotional motives.

Lastly, although it is not within the scope of this paper to discuss the historiography on the origins of the modern

'hospital',[39] the *dar al-shifa* of royal patrons in the seventeenth-century were institutions of healing administering Galenic-humoral medicine, and accordingly they have been studied as such. There is debate in historiography regarding when hospitals began to function as the primary establishments for providing healthcare, with the more common position being the 19th century.[40] This can be disputed by the presence of bimaristans in early Muslim civilisation; however, in the medieval and early modern period, hospitals administered unconventional medical care which differed to the modern institution [41] and this is demonstrated by documents from the end of the 15th century hospitals of Sultan Mehmet II Fatih (d.1481) and Bayezid II (d. 1512).[42] Items bought "for the hospital warehouses" recorded foodstuffs and medicaments together, without differentiating between the two which poses a difficulty for historians to discern what constituted medicine in imperial hospitals.[43] For example, opium was used a great deal in "Anatolian cuisine" alongside poppy which had medicinal benefit for not only humans, but also "veterinary" treatments.[44] Even oil and honey, and drinks such as coffee were known to have "gastronomic purposes" and function as medicine.[45] Similarly, Gülnüş Sultan laid down the purchase of basic staples such as "seven quintals of soap, fat, and honey", as well as "fifteen Egyptian quintals of olive oil" which were "to burn in the hospital".[46] She specified the purchase of medicines separately, such as "drugs and syrups and pastes" which were to be purchased for 20,000 paras per year.[47] Wounded patients were to have "salves and other materials" which were unspecified, purchased for 10,000 paras yearly.[48]

An incident has been recorded in the Archives of Topkapı Palace (TSMA) from 1689, after the hospital repair project during 1684-1686 (1095-1097 AH). The *nazir* (governor) of the hospital in Makkah had a letter sent to the founder Gülnüş Sultan, listing the provision required for the hospital.[49] Although olive oil was used by "cooks at the nearby soup kitchen", he highlights that "the physicians and surgeons" made use of it too, which led to him requesting to buy a considerable amount more.[50] This demonstrates Gülnüş Sultan's integrated and holistic vision for healthcare in the 1679 *dar al-shifa*, and reinforces, as Pormann and Savage-Smith suggest, that female patrons "endowed hospitals" which "constituted a considerable contribution to public health".[51]

Overall, this paper has shed light on Gülnüş Sultan's medical philanthropism in the 17th century



which might have significantly shaped healthcare in the holy city.

#### Note on translation:

Although a copy of the 1679 *waqfiyyatis* available in the General Directorate of Foundations (VGMA.VKF.KS 1428), the author has used Robert Bragner's translation published in the 1990 *Tarihimizde Vakıf Kuran Kadınlar: Hanım Sultan Vakfiyeleri*.

#### Note on pronunciation:

Conventional Turkish orthography is used in the paper i.e. Gülnüş instead of the English Gulnush.

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# Israeli Attacks on Health Care Personnel in Gaza; Immediate and Long-Term Impact on The Future of Palestine Gaza Health System in Context

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It has long been recognised that the health predicament in which Palestinians have been placed is inexcusable.<sup>1</sup> The health-care systems in Gaza were already struggling with demand, with a total of 3412 beds catering to a population exceeding 2.1 million people.<sup>2</sup>

The Israeli air strikes have displaced more than 80% of the population, leaving them with limited access to healthcare, food, water and other essential services. The few remaining hospitals in Gaza can only offer limited maternity, trauma and emergency care services and the humanitarian need is catastrophic.

Since 2007, Israel has placed Gaza under siege, with the

movement of people and goods being heavily restricted. This has rendered the training of medical personnel by international standards virtually impossible. Yet it is recognised internationally that the health workforce is an integral part of the health system, and no health service can be delivered, no person cared for, and no health outcome achieved without properly trained people.<sup>3</sup>

Such highly skilled people take years to train<sup>4</sup> and a lifetime to educate.<sup>5</sup> There is no formal approved training programme for reconstructive plastic surgery and burn care in Palestine – either in the West Bank or Gaza. Plastic surgeons play various roles in trauma centres, such as in the management of facial injuries and hand

injuries, performing limb-saving free tissue transfers, managing burns and complex wound reconstruction with flaps or skin grafts<sup>6</sup> and are involved in 40% of military trauma cases.<sup>7</sup>

Although this branch of surgery manages many conditions other than trauma (especially cancer and congenital deformity reconstruction), the persistent conflicts around Gaza has led to a preponderance of war related conditions which require skilled and specialised plastic surgical attention. This has been recognised by the Ministry of Health as well as the Palestinian Medical Council. Access to training opportunities outside Palestine, and Gaza particularly, have been severely limited and constrained the ability for Gaza to build capacity in this much needed area of surgical expertise. In this context, a group was convened in 2018 by the charitable organisation Medical Aid for Palestinians (MAP) from UK plastic surgeons to support local Gazan surgeons in a funded programme to build training capacity for plastic surgery. The international faculty consisted of the three Chairs of the British Foundation of International Reconstructive Surgery and Training (BFIRST), the Specialty Advisory Committee (SAC) in Plastic Surgery for the Joint Committee of Surgical Training in the UK, and Medical Aid for Palestinians, and also a recent Vice President of the Royal College of Surgeons of England (from 2020-23 the Chair of the RCSEng Global Committee). The local faculty in Gaza included the Director of Plastic Surgery for Al Shifa Hospital and other experienced Palestinian doctors.

As part of the ongoing programme to educate and improve specialty delivery in Gaza, three of the group visited Al-Shifa Hospital in March 2023 to assist in the delivery of best practice management and training in cleft lip and palate patients. Further training visits had been planned throughout the year on a monthly basis, to cover the syllabus. 40 patients were reviewed as outpatients, all with significant complex cleft and craniofacial deformities. Local surgeons were taught advances in cleft reconstruction, including much discussion around the finer details of functional reconstruction and multi-disciplinary support. Following this preliminary visit, a brighter future was anticipated, as the start of a consistent educational program which would take root, grow and flourish into a first-class reconstructive service to include a training the trainers programme. Links were being established to committed doctors in the UK to support development work with case-based discussions and telemedicine. It aimed to generate reconstructive surgical self-sufficiency, to a clinical standard that would match that expected in any developed society.

In lay terms, this might offer the chance to save a limb instead of an amputation with subsequent permanent disability. The best surgeons were selected from Al Shifa Hospital, each candidate was interviewed and committed to the program, and learning agreements were set. Subsequently the group of Gazan aspiring plastic surgeons met online on a bi-weekly basis to support their learning needs, aiming to reach the equivalent standard of the Inter Collegiate Fellowship of the Royal College of Surgeons (FRCS-Plast) reconstructive surgeons. To date the online tutorials included delegate-led sessions on evidence-based medicine, governance, cleft surgery, hand surgery, lower limb trauma and burns management. The delegates were uniformly committed and hardworking. They made time to attend after-hours teaching sessions, having worked full days in Al-Shifa Hospital. They shared complex clinical cases for the betterment of their patients. This process led to a close affiliation of the faculty with the Gazan trainees and senior surgeons, and the discourse on local vs. international management of clinical cases by the trainees was impressive and rewarding for both parties. Their hunger to provide their patients with the best possible care in the context of a besieged existence was impressive. They were hopeful, respectful and resilient in the face of unimaginable challenges.

Conversations about aspects of daily life (such as power disruptions, supply shortages, and anxiety for their families) gave considerable insight into the challenges facing doctors on a daily basis. Recent developments Since October 2023, four of the 18 doctors on the plastic surgery training program have been abducted, shot at close range, or killed by shelling. One such doctor was Dr Ahmed Said Al-Maqadma born 19th June 1991. He was a doctor who never hesitated to volunteer for long and complex cases and never ceased in his love of learning and sharing stories. He was a talented surgeon with a bright future and had won a Royal College of Surgeons of England Humanitarian Innovation Fellowship which he was working on regularly with frequent contact with a supervising surgeon as well as RCS staff member. Until March 16<sup>th</sup> 2024, he was still sending pictures of complex trauma cases, illustrating where he had salvaged the limbs of children injured by rocket fire and seeking further guidance on best practices in caring for such devastating injuries. And then there was nothing. He and his mother, a respected General Practitioner, Dr Yusra Al-Maqadama, were shot at close range by Israeli military force soldiers outside Al-Shifa hospital on 24th March 2024. Ahmed and his mother were an integral part of the future of health care in

Palestine, and have been murdered. Ahmed leaves behind him two children under five and his wife.<sup>8</sup>

Recently it has also been reported that Dr Adnan al-Bursh, the head of orthopedics at Al-Shifa Hospital, died in an Israeli prison after four months of torture.<sup>9</sup>

The BMA has put its position forward on Gaza<sup>10</sup> but the Royal College of Surgeons has not commented on the Israeli attack on healthcare facilities and workers. Some Muslim healthcare workers who have campaigned for peace and speak up against war crimes committed by Israel have been professionally persecuted.<sup>11</sup>

Given the Social Determinants of Health,<sup>12</sup> and Israeli oppression in Gaza, it is inevitable that we must consider the effects of the political context on health. In a leaked ten-page document, dated October 13 2023 and featuring the logo of the Israeli Intelligence Ministry headed by Minister Gila Gamliel, a clear plan is described for eradication of the Palestinian people from current territory. The document states, "With the occupation of Gaza, civilians in Gaza will move into Egyptian territory, leave Gaza, and will not be allowed to return permanently."<sup>13</sup>

It also proposes promoting a campaign which will "motivate (Gaza residents) to agree to the plan" through mass casualties. Gallant, the Defence Minister has ordered a complete siege of Gaza to ensure no electricity, no food and no fuel. If life in Gaza is impossible the most "natural and obvious consequence" would be for Palestinians to leave. The Israeli military force has attacked over 600 healthcare facilities in the Gaza Strip since October 7th 2023, including every single one of its 36 hospitals, resulting in over 700 Palestinian medical staff dead, 300 detained and over 1000 wounded. 90 children a day have been killed by the Israeli military forces in Gaza for over a year. This is equivalent to half my local school's population.

Every single day. In late-June 2024, Save the Children reports that a further 21,000 children are estimated to be missing due to the bombing and the ongoing war. This would not be accepted anywhere else in the world. Over 44,000 people have been killed by Israel since October 2023, and the Lancet recognises that this is a under estimation with closer to 186,000 people killed by Israel since the start of the war.

Many more people are still unaccounted for,<sup>14</sup> buried under the rubble<sup>15, 16</sup> and will continue to die with malnutrition, lack of shelter in winter and complications

from injuries without healthcare resources to care for them.

The attacks on healthcare facilities greatly exacerbate the desperate state of civilian life in Gaza.<sup>17</sup> The injured have nowhere to be treated and can only look beyond its borders, which are inaccessible to all but a tiny minority. This tactic of war has been described as a deliberate strategy of collective punishment, eradicating families and infrastructure with the total annihilation of "power targets" to be the "motivation" Gazans need to leave their homeland forever.<sup>18</sup> Health care facilities may be deemed to lose their protection if they commit, outside their humanitarian function, acts harmful to the enemy.<sup>19</sup> However, the Israeli government has put forward no credible evidence that would justify stripping hospitals of their special protections.<sup>20, 21</sup>

The Israeli military force has made repeated accusations that Hamas conducts military operations inside hospitals.<sup>22</sup> Many of these claims, however, have been refuted under scrutiny from reputable journalists.<sup>23, 24</sup> According to The Guardian: "...it's clear the intended and actual result of his campaign has been the systematic destruction of the healthcare infrastructure for Palestinians in Gaza".<sup>25, 26</sup>

A 2006 study in The New England Journal of Medicine found that patients treated at a verified trauma centre had a 25 per cent lower chance of dying than patients treated at a non-trauma centre.<sup>27</sup> This extends to the military and warfare setting.<sup>28</sup> Long-term complications are less likely in the context of protocol determined trauma services running out of Major Trauma Centres. Throughout the 57-year occupation of Palestine, there have been no verified trauma centres developed in Gaza, with surgeons frequently operating to manage mass episodes of trauma in inadequate resources.<sup>29</sup>

Consequently, the people of Gaza continue to suffer and die without adequate care, and will go on suffering long after this war is over. The woeful residual health care infrastructure and capacity from the surviving health care personnel cannot possibly manage the immense demands that post conflict care and rehabilitation will present to the system.<sup>30</sup> At present, local Palestinian doctors and staff are left to do their best in the most primitive conditions with exhausted medical equipment, intermittent electricity and water supply and limited medication for their patients amidst the constant sound of shelling and drones overhead. When ambulance crews, nurses, and doctors, who would be able to document and verify the injuries sustained by the civilians, are killed, a

diminishing number of witnesses are left able to testify to atrocities committed. The adverse health impact on the population as a whole is difficult in any circumstances; with the decimation of skilled personnel, measuring long term outcomes in the patient population will become virtually impossible. The physical and psychological sequelae of this war will be felt for generations to come, and the substantial loss of health care infrastructure as well as personnel will contribute greatly to the morbidity incurred.<sup>31</sup>

Once the war is over, surviving Palestinians will be able to slowly rebuild their homes, schools, businesses and hospitals. But the human capital lost, so many doctors, surgeons, paramedics, nurses and professors have been killed and cannot be replaced for many years. The team who had been training future reconstructive surgeons mourn the loss of every person in Gaza and Israel and are devastated at the loss of close medical friends and colleagues.

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## Declaration of Interests

- *Ms Swee Chai Ang is the Co-Founder and Patron of Medical Aid for Palestinians*
- *Victoria Rose is a member of the registered charity IDEALS - International Disaster & Emergency Aid with Long-term Support*
- *Naveen Cavale is a member of the registered charity IDEALS - International Disaster & Emergency Aid with Long-term Support*
- *Tim Goodacre is a Trustee of CLEFT, IDEALS, IMET2000, and the Blonde McIndoe Research Foundation. Chair of Interface Uganda. Council member of the MDU.*

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# Facilitating Acculturation in Medical Training: Moving Away from “Melting Pots”

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Medical training acts as a “secondary socialisation process”, predominantly through a hidden curriculum which “instils behaviours, attitudes, and values among trainees”<sup>1</sup>. It has been argued that increased secularisation of society and medical practice<sup>2</sup> is creating an observable trend towards radical secularism, the active erasure of religion, with modern medicine described as being “hostile” to religion and spirituality<sup>3</sup>. Meanwhile, religious diversity is increasing in the UK, with minority religions over-represented compared to the general population and just over 10% of doctors identifying as Muslim<sup>4</sup>, although, this is likely to be an underestimate due to stereotype threat and identity concealment reported by Muslims<sup>5</sup>.

Research also demonstrates that religion/spirituality has an influential role in medical student socialisation, and can be a protective factor in moderating emotional stress, compassion, work-life balance and interpersonal relationships with colleagues<sup>1</sup>. Acculturation theory, from the field of group relations in psychology, can be a useful lens to explore the interaction between Muslim learners and their learning environment, analogous to migrating to a secular-atheist dominant “host” culture of UK medical institutions.

Research shows that religious medical students can struggle with issues around identity and self-esteem but they are also more likely to use faith-based methods as positive coping mechanisms, experience less empathy fatigue, and report increased religiosity as medical school progresses.<sup>1</sup> However, students can also experience religious discrimination that adversely impacts

educational experience and outcomes at several points across medical school, and is more pronounced during clinical placements<sup>6</sup>.

For Muslim medical students and residents, the experience of religious discrimination is amplified by Islamophobia, with compounding intersectional forces of gender and race, often referred to as “The Triple Penalty”<sup>7</sup>. Islamophobia occurs on a spectrum; from biases, prejudices and micro aggressions to overt discrimination, resulting in pervasive marginalisation and exclusion.

The Manchester Muslim Student Guide (MMSG), co-produced by medical students, faculty and educators<sup>8</sup>, is a guide which aims to highlight practical steps that can foster inclusion and wellbeing for Muslim medical students. Areas covered in the guide include prayer rooms, religious practices, dress codes, and strategies to address discrimination and Islamophobia. The authors of the guide reflect on the value of empowerment-led student advocacy and the importance of faculty engagement and accountability. However, many challenges and conflict remain. In a recent GMC survey, amongst Asian medical trainees, Muslims were found to have lower pass rates<sup>9</sup>. Studies on differential attainment have consistently shown that a suboptimal learning environment is the main contributor, rather than individual learner deficit<sup>10</sup>.

## Acculturation theory as theoretical lens

Drawing on the work of Berry, acculturation theory can be a useful lens to understand the processes of adaptation

and accommodation to underpin advocacy work on faith and cultural inclusion in medical training. It has been used extensively in research looking at International Medical Graduates (IMGs) experiences<sup>11-13</sup>. Acculturation is “the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members...resulting in various forms of mutual accommodation and longer-term psychological and sociocultural adaptations between both groups”<sup>14</sup>. From the perspective of the non-dominant group, two critical factors determine the acculturation strategies adopted: the desire to maintain cultural identity and heritage, and the desirability of intercultural contact<sup>14</sup>.

Acculturation can result in four outcomes: integration, where individuals preserve their cultural identity whilst simultaneously maintaining intercultural contact to facilitate participation as an integral part of a larger social network; separation, where individuals turn inwards towards their heritage culture and disengage from involvement with other cultural groups; assimilation, where individuals shed their culture and become absorbed in the dominant culture; and marginalisation, where there is limited interest in having relations with others and in maintaining their own cultural heritage, which often occurs due to enforced heritage loss and in response to experiences of discrimination and exclusion<sup>14</sup>.

Additionally, there are three observable behavioural shifts that can be observed: cultural learning, culture shedding and culture conflict<sup>15</sup>. Culture shedding is associated with assimilation, whereas integration involves cultural learning with limited cultural shedding<sup>15</sup>. The opposite is the case with marginalisation and separation is a consequence of a lack of both cultural shedding and cultural learning<sup>15</sup>. Additionally, conflict and stress in the process of acculturation can result in acculturative stress, with specific manifestations around poor mental health, feelings of alienation and heightened psychological and psychosomatic symptoms<sup>15</sup>. These are consistent with discriminatory and exclusionary experiences reported in the MMSG<sup>16</sup>.

Acculturation at the individual level is termed psychological acculturation and different adaptation outcomes have been identified<sup>15</sup>. These include adjustment, where there is increased congruence between the individual and environment, and is often the strategy intended by the term adaptation; reaction, where there is retaliation against the environment to increase congruence; and withdrawal, which can be voluntary or

forced exclusion and results in removal of the individual from the environment<sup>15</sup>. Importantly, Berry demonstrates that assimilation is not the only way to acculturate and adjustment is not the only way to adapt<sup>15</sup>. In wider research, policy and political narratives around British Muslims, integration can be highly charged with Islamophobic and racist overtones underpinned by assimilatory objectives<sup>17</sup>. This distinction is important to understand for both Muslim learners and educators.

On an institutional level, adaptations can be divided into accommodations and modifications. In simple terms, accommodations change how a student learns, whereas modifications change what a student learns<sup>18</sup>. However, terminology is often confused with all three terms used interchangeably. This is problematic as it may give the impression that faith/cultural adaptations are in response to learner deficit, which contradicts the prevailing literature around differential attainment highlighted above.

## Applying acculturation theory

When groups choose to acculturate, there are large variations in the way they do this and even engage in the process<sup>15</sup>. At the sociocultural level, the two groups, in this case Muslim learners (students and residents) and secular educators, may have some initial ideas about preferences or goals they wish to achieve, as well as the steps that need to be taken to achieve them<sup>15</sup>. The strategic goals set by the groups of which individuals are members of influence longer term outcomes both in terms of sociocultural and psychological adaptations<sup>19</sup>.

It is important to note that whilst adaptations in both groups are implied, most changes occur in the non-dominant group<sup>15</sup>. This is partly because individuals from the non-dominant group do not always have complete autonomy over their choice of acculturation strategies and outcomes<sup>20</sup>, such as due to an absence of psychological safety, as evidenced by the reluctance to report concerns amongst medical students experiencing discrimination<sup>6</sup>. Additionally, the strategies of the HC society in relation to the two critical factors of identity/heritage attachment and contact desirability also determines outcomes<sup>11</sup>.

Furthermore, the experience of religious discrimination and Islamophobia amongst Muslim students points to cultural conflict, separation and acculturative stress, which can contribute to poor adaptation, negatively impacting educational experience and outcomes<sup>16</sup>. Pioneering work by Ying Fei Heliot explores the

intersection of religion in the workplace and highlights how religion/occupation identity tensions have a negative impact on psychological wellbeing and work outcomes amongst healthcare staff<sup>20</sup>, which is relevant to Muslim residents who have a dual role as learners and service providers.

The term “host receptivity” has been used to describe the HC’s willingness to accommodate those from other cultures and provide opportunities to participate in local social communication processes<sup>21</sup>. It is argued that for integration to occur, there are key attributes that the dominant society must possess: open and inclusive orientation and a willingness for mutual accommodation<sup>21</sup>. However, the dominant group significantly influences the way in which acculturation takes place, with four possible objectives: melting pot, segregation, exclusion and multiculturalism<sup>15</sup>. This is relevant when considering the strategies that medical institutions adopt to accommodate faith and belief, a protected characteristic under the Equality Act<sup>21</sup>.

When assimilation is sought by the dominant acculturating group, it is termed “melting pot”, when separation is forced through, it is called “segregation”, when marginalisation is imposed, it is termed “exclusion”, and when diversity is an accepted feature inclusive for all ethnocultural groups, it is termed “multiculturalism”<sup>15</sup>. Inconsistencies and conflicts between these acculturation preferences can be sources of difficulty for acculturating individuals and result in acculturative stress.

The hidden curriculum can be a particularly potent source of acculturative stress for Muslim learners, through shaping sociocultural norms and behavioural practices, such as alcohol-fuelled social gatherings. Additionally, the formal curriculum, can perpetuate exclusion of Muslim medical students both in form, such as timetabling during Friday prayers, which is a source of moral conflict and distress for students who wish to pray, and content, being focused on colonial Eurocentric concepts of health and healing. Thus, the current learning environment resembles a melting pot that is not open, inclusive or adaptive.

## Towards a middle way: cultural humility

In current trends of increasing cultural and religious diversity amongst the medical student body, equality, diversity and inclusion (EDI) initiatives must move away from promoting melting pots to multiculturalism within medical institutions. As Berry writes: “we all ask: how

can peoples of different cultural backgrounds encounter each other, seek avenues of mutual understanding, negotiate and compromise on their initial positions, and achieve some degree of harmonious engagement?”<sup>14</sup>. Research in the NHS demonstrates that where religious and occupational identities are actively brought into alignment, occupational practice is enhanced and creates the possibility of integration such as empathy in caring professions<sup>20</sup>. This can be extended to student/resident learning and the positive development of professionalism and achievement of capabilities.

Ward and Szabo present an integrated framework for social learning experienced by “non-natives”<sup>23</sup>. Here, this translates to non-native Muslim learners in a religiously-hostile learning environment<sup>3</sup> who need to undergo social learning to develop behavioural and sociocultural adaptation, in addition to the early learning and psychological adaptation that takes place during acculturation<sup>11,23</sup>. The framework references personal and situational factors which shape antecedents of culture learning, and learning strategies, processes and outcomes, which over time lead to behavioural and sociocultural intercultural competence<sup>23</sup>.

Cultural (or intercultural) competence, is described as ‘the ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills and attitudes’<sup>24</sup>. However, the focus on cultural competence training seen in current EDI initiatives is based on short-term interventions which are unlikely to be effective<sup>24</sup>. Cultural humility (CH) is an alternative practical and sustainable approach which has a reflexive and practical ethos and focused on developmental processes emphasising process-in-context. CH places emphasis on self-awareness and relationships and shifts the focus from cognitive approaches towards socio-emotional skills<sup>26</sup>.

CH places onus on those holding privilege to recognise and challenge assumptions and redress power imbalances at interpersonal and institutional levels. This can create cultural safety, as an outcome of conscious efforts to address power differentials and biases<sup>26</sup>. Practically, this involves setting up “brave spaces” for regular respectful dialogue, learning and reflection based on curiosity, courage and compassion. Drawing on acculturation theory, cultural humility is thus likely to increase cultural contact and learning and decrease cultural shedding, conflict and acculturative stress, associated with improved integration and adjustment, whilst avoiding the extreme strategies and outcomes of assimilation/ melting pots on the one hand, and separation/segregation and

marginalisation/exclusion on the other. CH can therefore promote positive outcomes of sociocultural integration and psychological adjustment with thriving multicultural learning environments which welcome and celebrate religious diversity and where each learner flourishes.

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# Can Online Petitions (e-Petitions), Open Letters and Calls from Medical Doctors and Health Academics Influence a Gaza 2023-24 War Ceasefire ?

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Keywords: *online petitions, e-petitions, open letters, war Gaza, ceasefire, Palestine*

The 2023 War on Gaza has been referred to as a settler colonial led genocide in which Gazans have been victims of “humanity’s darkest hour”. (1) The healthcare system has been inadequately staffed and seen as unsustainable since the COVID-19 pandemic. (2) An immediate ceasefire was called for in online petitions or e-petitions, protests, and academic journals worldwide. (1) The ongoing blockade since 2007 and continuous aggressions by the occupiers caused Gaza’s healthcare system to be in a constant crisis emergency state prior to this war. (2, 3)

The popularized hashtag #CeasefireNow used on social media networking sites and on printed protest posters worldwide also has a global e-petition on Change.org. (4) Started on October 18, 2023, it has accumulated 999,001 supporters by the end of 2023, making it number three of the top five e-petitions of 2023. (5) At the time of this paper, the 249th day of war, it had 1,378,079 signatures *en route* to its next goal of 1,500,000. Similarly, Australian health care workers specifically address Prime Minister Anthony Albanese and Foreign Minister Penny Wong in their e-petition on “the humanitarian disaster in Gaza”. (6)

E-petitions are used as a means to raise public awareness of social concerns. (7) Harrison et al. demonstrated that the combination of online media and conventional news outlets was seen to be effective in influencing individuals to sign an e-petition and mobilize the population to participate in such collective action. (8)

Academics are choosing to publish their support of the Palestinian cause and risk backlash rather than remain silent. (1, 3) Some academics have chosen to publish open letters with active calls for signatures from their health colleagues. (9) From American health faculty to British public health registrars, open letters are being written in solidarity. (10, 11) They call for a ceasefire with the United Nations, World Health Organization, Médecins sans Frontières, and many others. (9, 12)

A thematic analysis of social media content regarding the 2023 War revealed a profound sense of global empathy manifested towards Gaza. (13) Buheji et al. stated that empathy can be a powerful tool as it enhances cultural sensitivity, building solidarity with Gaza and Palestine as a whole. The dynamics of empathy can solicit social and political change through actions such as e-petitions. Empathy may potentially help Gazans and Palestinians remain resilient and hopeful as well.

The primary author is a non-Arab American married to a Gazan, and mother of medical students of Gaza (Gaza’s medical schools no longer stand). She is a public health researcher who has been studying Gaza’s need for health reform since 2020. (2) She lived in Gaza for the last few years and recently evacuated the war. This is her debut letter announcing a call for both a long-term ceasefire and an end to the occupation. At the same time, she is announcing that she left her home and family, debating the effects of doing so: good or bad.

As academics, we know the struggle of choosing to publish or not publish. As of November 16, 2023—only 40 days into the war—Ben Saad (2024) penned what he found to be the 17th humanitarian appeal published in scientific journals. (14) To date, *JBIMA* alone published 2 editorials, (15, 16) 4 letters to the editor, (17-20) and 4 academic articles. (21-24) When multiple pediatricians from various countries urge scholars to use their academic platforms, we feel compelled to join suit. (11) While the primary author has much more to lose than supporters and sympathizers to the war, here are our collective words.

As a war evacuee, the primary author attests to the fact that it did (and still does) help to watch, hear, read, and discuss—in astonishment (many times in tears)—Gaza-specific e-petitions, open letters, and research articles. The proportion of support, number of supporters, type of language used and its tone when referring to the people of Gaza, has been unlike anything ever witnessed or received before this current war. The empathy is surely felt. Thank you and please don't stop! Don't stop until #CeasefireNow is actualized and the occupation ends. Sign an Gaza-specific e-petition or open letter, and/or write a scholarly article today.

*Disclaimers: The views expressed in the submitted article are those of the authors and not an official position of our institutions.*

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# The Frightening Reality of Nearly Dying of Covid 19 and My Reflections as a Healthcare Professional

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Keywords: *COVID-19, Shared-decision making, Patient Experience*

I tested positive for COVID-19 in November 2020, and that was when the story began. It was still quite early in the pandemic, there were no approved vaccines, and we were still learning how to treat the disease. I had no obvious risk factors nor any core morbidities so was not worried. I fully expected to be back at work within a few days in my role as a frontline clinician (consultant cardiovascular pharmacist) at Leeds General Infirmary and as an Academic (Associate Professor at the Leeds Institute of Cardiovascular & Metabolic Medicine) with several national and international roles. The horrors I had seen during the pandemic meant I was eager to get back to treating patients and helping the sick recover.

Quite quickly however, I sensed that it may not be as straight forward as this. My symptoms progressed from fever and a never-ending cough to dizziness and breathlessness. Dizziness was my mark that I needed to visit the hospital and was the first real alarm bell. Whilst I was very ill, I was still well enough to call for an ambulance myself and was admitted. I thought that all I needed was a bit of oxygen and rest. My condition deteriorated, and I was sedated and intubated: the biggest fear. I was unconscious for more than 2 months, learning only later that I had experienced multiple pneumothoracies, multiorgan failure (including kidney failure requiring dialysis), and cardiac arrests. My survival chances were very slim. My care team did not think I would make it, but my body managed to rally

itself: a miracle of sorts. My gratitude and gratefulness are endless to the many good deeds performed, and prayers made to help me recover and the One who made these prayers come true. I have definitely beaten the odds. When I semi- “woke up” in February 2021, it was clear that it was only the beginning. I suffered extensive deconditioning and had multiple morbidities that compelled me to spend many more months in hospital. More than three years on, I am still recovering.

Currently, I am finalising a whole book about my experiences from admission to discharge. Unfortunately, I faced many challenges after returning to work which delayed the publishing of the book. I am sure many will be interested in the detail. I am almost finished with the first book, and it will most likely require a second book to describe my return to work and the challenges I faced since. However, in this short piece, I share some of the lessons that I take, as a health care professional, from being a patient for so long. I will also dedicate a few paragraphs in this particular article for spiritual reflections, from an Islamic angle.

## Lesson 1: The Value of Good Communication

As my condition deteriorated, and I found myself in the intensive care unit (ICU), I dreaded being sedated, not just because I knew I might never come back, but also because of the praiseworthy responsibility it would place

on my family. My wife is a teacher and an artist; she is intelligent, educated, and fantastic at what she does, but has no medical training. Would she be able to make key decisions on my behalf if I were incapacitated? Luckily, some of my medical friends, colleagues from cardiology and other departments rallied around and assured me that they would support her while I was under sedation—and, indeed, they were invaluable for interpreting technical jargon and providing wise counsel. At times they made suggestions and cautiously intervened without offending the team(s) looking after me.

Nonetheless, listening to my wife's stories about my period of unconsciousness was an emotional experience. It made me realize that what we say to patients' families often (eventually) makes it back to the patients themselves. Her stories also drove me to reflect more broadly on what families go through when a loved one is critically ill.

Good communication is so important. Some of the consultants my wife dealt with were fantastic at delivering what was often bad news in a way that remained at least somewhat positive; others were overly pessimistic and caused her significant distress. Obviously, as responsible health care professionals, we cannot give our patients and their relatives false hope. However, we must keep the lines of communication open, make time when necessary, and find compassionate ways of having difficult conversations.

## Lesson 2: Shared Decision Making

Losing control, is another great fear that I dreaded when sedated. Up to that point, I had been heavily involved in the choices about my care; I even asked to review my own blood-test results! I was desperate to avoid losing the ability to participate. We often preach the concept of shared decision making with our patients, and I, myself, have written about the benefits of this approach.<sup>1</sup> But how often do we really deliver it in everyday practice? Not enough, I suspect.

Of course, considering my background, I was a relatively informed patient. I was fortunate enough to have the medical knowledge that so many others in my situation would not have. And even when my mind was barely functioning after I first regained consciousness, I wanted to play a role in the decision-making process. But when I look back, it concerns me that some of my care team seemed uncomfortable with that.



*Battling the breathlessness when first admitted. I needed CPAP non-stop. I had multiple PEs and my condition was deteriorating before needing to be put into an induced coma on a ventilator.*

As clinical practitioners, we should allow patients a degree of reasonable scrutiny of what we do for them. It is not always easy in overstretched daily practice, but we still need to make the effort to answer our patients' questions and engage them in treatment. Their treatment journey is a partnership after all.

The motto "No decision about me without me" is very empowering for patients and needs to be respected and fulfilled by us—healthcare professionals. More listening and humbleness will make shared decision making more a reality than an aspiration.

## Lesson 3: Understanding Delirium

During my ICU admission, my wife was warned that even if I survived, there was a big chance that I would be a different person. Brain damage due to hypoxia, cardiac arrests, and severe anaemia, were potential contributing factors. This was terrifying for my family, but they had to wait and see.

I am sure most readers will understand that facing the possibility of death—or the daunting prospect of a lengthy and uncertain rehabilitation—was pretty frightening. Actually, though, the most terrifying aspect was the delirium I suffered as I gradually regained my mental faculties after being sedated.

Delirium is very common in patients in ICUs. It can present in various ways: as agitation and restlessness or, on the flipside, as apathy and decreased responsiveness.<sup>2</sup>

For me, it lasted a couple of months, and I felt like I was losing my mind. It was not just the side effects of the sedating drugs used in ICUs that worried me: I had severe hypoxia for many weeks, and the potential for brain damage was very high. Was it just delirium? Or was my brain damaged? It was terrifying.

Whilst unconscious, I had experienced many different dreams, and those fed into my delirium when I woke up. Throughout my coma I dreamt and dreamt. In some of the dreams, I was with my family or going about my normal activities, such as seeing patients, giving lectures, and travelling to conferences! Some dreams were very spiritual and related to the challenges I was going through including when I died (cardiac arrest). There was also a third type, which I did not understand, which later seemed to “match” new events that occurred. I might elaborate more on this in my book. In the early days of my recovery, I found it very difficult to distinguish the “fiction” of these hallucinations from the fact of being seriously unwell in hospital. Dreams and reality seemed to be mixing themselves together and the confusion this caused me was deeply disorienting.

Thankfully, the wonderful ICU rehabilitation nurses recognized that seeing my family could help me to overcome this confusion and regain a sense of psychological wellbeing. It is well known that involving family and friends can be important in mitigating the impact of ICU delirium<sup>2</sup>, but getting access to them was a big challenge during the pandemic.

I am hugely grateful to the nurses who facilitated that for us; I am not sure that ward managers appreciated the importance of this. We have a lot to reflect on with regards to many decisions we made during the pandemic. Based on my experience, I do not think we are good with addressing the psychological well being of our patients and their families.

Unfortunately, the impact of delirium on seriously ill patients is still too often under-recognized. I would encourage practitioners to give greater consideration to alleviating this very frightening manifestation.

## Lesson 4: Looking after a healthcare professional patient

I would probably declare that I was not an easy patient, while in a coma and after I woke up. I asked too many questions, I made many suggestions, but at the end of the day I was another human being who wanted to get better and go back to his family. There was no need to feel intimidated that one is looking after a healthcare professional. Yes, I did challenge the things which did not make sense, but isn't that a good thing if we want to get it right?

I did worry about my privacy, as I was known to many (not necessarily a celebrity). This was very concerning to me. I remember the emails sent by Trust senior leaders reminding us that when a celebrity was admitted to hospital to respect their privacy and not to check their records (unless you have a direct caring responsibility) nor share their news. How many respected this aspect of my privacy, I do not know, but I assumed that many would have acted professionally.

I have huge respect to all those who delivered on the mottos and values that we talk about in the NHS. However, I am not sure that we are all on the same page when it comes to implementation. Most of the care I received was excellent and I am very grateful for many. I am also conscious that we are humans; we err.

Another aspect that we should be aware of is treating all of our patients fairly. This, of course, applies to healthcare professional patients as well. However, I would be careful. In my experience, the attempts made by some to not “advantage” me as a healthcare professional, have in fact disadvantaged me. For example, not allowing colleagues to help wheel me down to get fresh air when staff were busy was very unfair and caused me a lot of unnecessary distress.

I was in hospital for months; I could not walk and all other patients were able to walk down. I felt imprisoned. It took far too long for the healthcare team to respect and acknowledge my need to get out of the ward “prison”. I was disadvantaged as a healthcare professional and felt discriminated against, as a person with “disability” (unable to walk)—something to reflect on when we are delivering care for patients with long hospital stays.



*Being able to be wheeled down had a huge positive psychological impact on me. My colleagues were forbidden from wheeling me down (a complete illogical decision by managers). I had severe deconditioning and could not walk or mobilise for months.*

## Lesson 5: The Importance of Family to Long-Term Recovery

As I write this in Nov 2024, I count myself lucky that I have regained much of my physical functioning. For that, I am particularly indebted to some amazing physiotherapists and occupational therapists.

When I began my recovery in hospital, I could not even sit upright, let alone walk. I had to relearn these abilities as if I were a baby. For many months, I needed assistance with even the simplest tasks, such as eating, washing, and going to the toilet. We take these things for granted in normal life, and being incapable was truly humbling. Regaining the capacity to care for myself was a cause for celebration!

Once I was able to walk unassisted, I asked to be discharged early. I was bored and fed up, and the psychological burden was becoming overwhelming. I felt imprisoned, and I felt that going back to my family

would hasten my recovery. I still believe it was the right decision. I continued my physiotherapy at home and gradually returned to my work and other activities of daily living.

As practitioners, we need to take a step back and not see the illness but consider the patient too. And we must appreciate that the hospital is not always the best place for them to be. Many like me prefer to recuperate at home and are fortunate enough to have loved ones to support them there. People of faith are taught that maintaining family ties is crucial, and in this instance, their support can play a huge role in ensuring a complete recovery. The healing power of a united family with strong ties should not be forgotten or underestimated. It is one of the biggest blessings that we should cherish and be incredibly grateful for.

## Lesson 6: Understanding Patients with Long Term Conditions

I was left with many chronic health conditions as a result of COVID-19, but heart disease is not one of them. Nonetheless, as someone who spends much of his working life interacting with patients with cardiovascular disease (CVD), I now have a lot more empathy and can put myself in my patient's shoes.

Indeed, I have first-hand experience of many of the common symptoms of heart failure, for example, such as breathlessness, extreme fatigue, limited exercise capacity, and peripheral oedema.<sup>3</sup>

Breathlessness was, of course, a key warning sign during the acute phase of COVID-19, and I will never forget the distress of sitting in my hospital bed gasping for air and relying heavily on oxygen. I had multiple pulmonary embolisms, and breathlessness was a huge burden.

I could not even chew my food. Then later, during the long journey to recovery, my lungs were so damaged and my body so deconditioned that breathlessness became an everyday challenge. Similarly, I now understand the extreme fatigue that patients with CVD often report. Even when I regained the strength to walk, I was too exhausted to go very far. It took a long time to get back to work, engage fully with family and friends, and live more normally. My quality of life was greatly damaged. Even now that I have recovered a lot of my functioning, I am still living with the aftermath. I have had to adjust my life to chronic fatigue—pacing myself in everything I do and rationing my energy throughout the day.

I also have to live with various chronic conditions that many patients with CVD would recognize, such as renal disease. My kidneys completely failed while I was sedated, and I needed dialysis. Some of the damage is permanent, and I have had to come to terms with that, which has not been easy emotionally, but perspective is key here, and I am extremely fortunate to still be alive and that I have been able to take steps towards a normal life. I need to remain vigilant however for other issues associated with kidney disease, for example, the increased risk of cardiovascular events.

My experience made me better appreciate the value and importance of the multimorbidity approach or the Cardio-Respiratory-Renal-Metabolic care.

Ultimately, though my experience suffering from Covid in ICU with multiple complications has been difficult, I feel that it has also helped me become a better care provider for my own patients.

I can now see their perspectives more clearly and can better appreciate what they go through every single day. Patients must play a role in their treatment plan and my experience over the past few years has only confirmed this further.

Watch out for my book for a more detailed account of my experience and lessons learned.

## Spiritual Reflections

The ordeal I have experienced, and the outcome thereafter, strengthened my belief that Allah is our Rab. Rabis the one who looks after and cares for His creation. He is indeed the one who has ultimate control of all matters. When I woke up, and before I learnt what happened to me in ICU, I was repeatedly made to feel that something very “special” happened to me. “You are a miracle” -many healthcare professionals told me. “How many souls do you have?” - others said. “You definitely beat the odds” - added others.

I had no idea how slim my chances of survival were. Humans reached their limit, medicine reached its limit, but the One who is the Rab of this existence destined something else for me. Alhamdulillah. Indeed, “And when I am ill, it is He who cures me” (Surah Al-Shu’ara. Verse 80).

قال الله تعالى:  
وَإِذَا مَرِضْتُ فَهُوَ يَشْفِينِ

**Allah the Almighty says:  
"And when I am ill, it is He who cures me"**

سورة الشعراء اية 80

One of the multiple dreams I saw in my induced coma had many people praying for me with a lot of detail. It was a very strange dream that I did not understand. Months later, my family started sharing with me the videos, recordings, and messages of people who were praying for me non-stop from all around the world. All faiths. This was a very humbling experience, which made me shed tears. People I knew and many I did not know were guided by the Almighty to remember me in their du’aa and supplications. This was astounding. I instantly saw that this must have been a major reason for my miraculous recovery. Didn’t the Prophet ﷺ say: “Nothing but supplication averts the decree, and nothing but righteousness increases life.” (Al-Tirmidhi)

قال رَسُولُ اللَّهِ ﷺ:  
لَا يَرُدُّ الْقَضَاءَ إِلَّا الدُّعَاءُ وَلَا يَزِيدُ فِي الْعُمُرِ إِلَّا الْبِرُّ

**Messenger of Allah (ﷺ) said, "Nothing but supplication averts the decree, and nothing but righteousness increases life."**

الترمذي، حسن

The last part of the earlier narration fits well with another potential reason why my destiny was changed. It is the many good people out there who gave charity on my behalf when I was battling. Indeed, this was the last request I made from my family before being sedated - “Please give a lot of charity on my behalf - I sense what I am about to face requires a divine intervention and nothing but a lot of charity is likely to address it.” These were my private words to my family. My family were always protective of my privacy and my request for prayers and charity stayed only with them. However, after I woke up 2.5 months later, I was astonished by the

endless charities that were given with the intention of Allah granting me healing (shifaa).

Most were not from my family or even from people I know. SubhanAllah and alhamdulillah who facilitated this. I was so humbled and moved by this second gesture by people from all around the world. Indeed, the Prophet ﷺ says: "Cure your ill with charity" (Al-Suyuti).

قال رَسُولُ اللَّهِ ﷺ:  
داؤوا مرضاكم بالصدقة

**Messenger of Allah (ﷺ) said: "Cure your patients with charity"**

السيوطي حسن

I have lived experience of many spiritual encounters that I am still learning from. I hope these spiritual experiences and reflections can provide you, as healthcare

professionals, and patients out there, hope beyond this materialistic world.

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# Delayed Aid and the Need for Localization : Insights from the Response to the 2023 Earthquakes in Northwest Syria

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## Introduction

Over the past thirteen years, the conflict in Syria has led to between 0.6 and 1 million deaths and the displacement of over thirteen million people, including as both refugees and internally displaced persons (IDPs)[1]. From 2011 to 2024, there have been significant changes in political and military influence. As a result, Syria was divided into three distinct areas of political control: (1) The central, coastal, and southern areas were under Syrian regime control; (2) northwest Syria (NWS), including parts of Idlib and Aleppo governorates, was under opposition or rebel control; (3) northeast Syria (NES), including parts of al-Hasakah, Raqqa, and Deir ez-Zor, was under the control of the Autonomous Administration of North and East Syria (AANES). The toppling of the Assad regime on 8<sup>th</sup> December 2024 has changed this with almost all of Syria, now under opposition control. In some ways, this important political change has dated some of the content of this commentary, however, it remains relevant as we capture some of the key issues of how the response to the February 2023 earthquakes was politicised when Damascus was under the former regime. Therefore, the focus of this commentary is on the region formerly known as NWS

which was particularly affected by the February 2023 earthquakes[2].

The severe earthquakes which affected south-eastern Turkey and northern Syria in February 2023 led to widespread devastation from which, populations in both these areas are arguably still recovering. NWS, which was essentially besieged between the Turkish border on one side and an impermeable front-line on the other, was particularly affected with this compound crisis occurring on top of multiple other stressors which included forced displacement, ongoing attacks and insecurity, attacks on health, economic crises, funding cuts and a deteriorating health crisis[2], [3].

What was apparent was that after thirteen years of protracted conflict and ongoing humanitarian crises, there was limited localisation of the cross-border humanitarian response to the area such that the 5-6 million affected were mostly left to fend for themselves for eight days in its aftermath [4]. This contrasts starkly with other disasters such as the 2010 Haiti earthquake when 27 countries offered emergency teams within 24 hours and 6 of them were operational inside the country within 48 hours [5].

## Challenges in the Response to the Earthquakes

### Coordination and Access

Access to NWS was significantly disrupted following the earthquakes, particularly due to the damage sustained to highways in southern Turkey. Notably, the main crossing from south-eastern Turkey to northwest Syria via Bab Al-Hawa, the only UN-approved international aid corridor at that time, was affected [6]. Despite this, an interactive map from the logistics cluster in Gaziantep indicated no impediments to aid arriving from the UN hub near Reyhanli, located just 5 km from Bab Al-Hawa. This suggests that the initial closure of the Bab Al-Hawa crossing for the first 48 hours was not due to a lack of supplies but likely a result of Turkey's own disaster-related challenges and the absence of sufficient international pressure for immediate access [7]. Consequently, it was not until late on February 13th, seven days post-earthquake, that the UN secured approval from Syria's then president to open additional border crossings, facilitating much-needed access to the affected areas [8]. The first UN aid only entered northwest Syria from Bab al-Salama, one of the newly opened crossings, on 14<sup>th</sup> February, eight days after the earthquake [9].

### Politics, sovereignty and funding

The delay waiting for approval from the former Syrian regime to send aid to affected areas in NWS was controversial. Legally, the UN did not need to seek such permission and could have bypassed this to ensure life-saving aid reached affected communities [10]. In July 2022, Amnesty International had already highlighted UN guidance stating that international organisations can conduct temporary humanitarian relief operations without the consent of conflicting parties in exceptional situations, to provide life-saving supplies to civilians in extreme need, if no alternatives exist and it does not seriously impair the country's territorial integrity [11]. The UN also coordinates search and rescue efforts through the United Nations Disaster Assessment and Coordination (UNDAC). UNDAC teams can reach anywhere worldwide within 12 to 48 hours of a request [12]. This was the case in Turkey and Syrian government-held areas but not in the former NWS [8], [13]. The UN Under-Secretary-General, Martin Griffiths, stated that 4,948 search and rescue experts were mobilised through the UNDAC mechanism in less than 72 hours to respond to the earthquakes in Turkey and

Syria. However, none of them were deployed to NWS [14]. In the aftermath of these delays, Martin Griffiths apologised to the Syrian people when he visited the Syrian-Turkish border on 12<sup>th</sup> February 2023, stating, "We have so far failed the people of north-west Syria. They rightly feel abandoned. Looking for international help that hasn't arrived" [15].

Local and international resources were predominantly directed towards supporting the disaster responses in Turkey. As of 9<sup>th</sup> February, 95 countries and 16 international organisations had pledged aid to Turkey with 6,479 rescue personnel from 56 countries already in Turkey; at that time there was no support to NWS, except for six trucks carrying food and non-food items from the World Food Programme that was already scheduled before the earthquake [16]. The humanitarian needs in NWS at the time were considerable, given the population's prolonged exposure to conflict. While the challenges faced in Turkey were significant, the situation in NWS was equally dire. The discrepancy in the humanitarian response on either side of the Turkish border may have contributed to preventable deaths in NWS. This disparity was exacerbated by the fact that donations from countries and other entities were predominantly channelled to international NGOs such as the International Federation of Red Cross and Red Crescent Societies (IFRC). These organisations typically operate through the sovereign state, such as the International Committee of the Red Cross (ICRC) and its Syrian counterpart, the Syrian Arab Red Crescent (SARC) [17], which has had no access to NWS since 2020, with much criticism directed at SARC, including accusations of corruption and collusion with the former Syrian regime in the collective punishment policy against areas outside its control including NWS [18].

### Localization in Humanitarian Response

The example of the earthquake response to NWS remains relevant as it demonstrates not only the impact of corruption on such life-saving, urgent responses but also the essential role which localization has in areas which are essentially besieged. Localization refers to the process of transferring funding, responsibility, and power from international organizations to local humanitarian actors, something which goes beyond simple geographical localisation [19]. This approach emphasizes the need for local entities to lead disaster response efforts, as they are often nimble, trusted by local communities, have better contextual knowledge, have greater reach to affected communities - particularly in high-risk settings - and often have lower overheads,



making them more efficient [20]. The localization concept has been discussed for several decades. However, it gained significant traction following the 2016 World Humanitarian Summit, which emphasized the importance of empowering local actors [21]. Despite these calls, the international humanitarian system has struggled to shift the power dynamics and funding structures to adequately support local organizations. Though this goes beyond funding, it is estimated that only 1.2% of humanitarian funding goes to local and national organisations, as of 2022 [22].

### Localization in Syria

Though discussions about localisation of the humanitarian response in NWS have been ongoing since 2020, it has been met with limited success. In the wake of the earthquakes, given the devastation in Turkey, including Gaziantep, where the WHO-led health cluster for cross-border humanitarian aid to NWS is based, this was paralysed in the immediate aftermath of the earthquakes [23]. This gap in the leadership and coordination role of the health cluster in the very needed moment further highlighted the significant need to build local capabilities. Humanitarians based on both sides of the border were themselves affected, interrupting their operations to NWS [24], [25]. The international humanitarian organisation and UN responses were restricted, delayed and inadequate resulting in the further deaths and injuries beyond the immediate, leaving those in NWS with knowledge that they are neglected [26]. On top of this, there was very limited capacity inside NWS on the day of the earthquakes. This was partly due to a lack of localisation combined with other aspects of a failed international early response; for example, there was also an absence of the required heavy equipment needed for search and rescue and a lack of fuel and medical supplies in the hospitals, suggesting that preparedness for such scenarios is also essential for these essentially besieged areas [27]. Effective disaster risk reduction and preparedness are essential in responding to such catastrophic events. Moreover, at these times, mechanisms to open border crossings for the sake of access and bypassing sovereign states and their institutions for areas outside of their control must be rapidly activated [28].

The earthquake example is just one of many that indicate the need for empowering local actors; another was the response to COVID-19 when NWS was neglected for months in its aftermath [29]. The COVID-19 response in Idlib's governorate highlighted several critical needs, particularly the importance of local ownership and

priority setting. Local-level coordination and community engagement, as seen with civil society groups, volunteer organisations, and the local health directorate, proved essential [30]. Despite limited international support, local health leadership established quarantine and isolation centres mobilized volunteers and ran awareness campaigns to support the overburdened health sector [30].

Given the critical role of local actors in these processes, it is imperative to support them in planning, owning, and leading these efforts [31]. Such investments are worthwhile, particularly in protracted crises where funding shortfalls force international organisations to reduce activities or pull out [32]. For areas such as former NWS which were essentially besieged, localisation is therefore not only conceptually important but also lifesaving as seen after the earthquakes. Despite limited resources, local organisations are often better positioned to navigate the complex terrain and provide immediate, life-saving assistance [33].

In the global humanitarian system, there remains an imperative for funding, responsibility and power to be transferred more directly to local humanitarian organisations, bypassing some of the traditional actors which have dominated humanitarian response; these include international organisations [34]. Local organizations may, as in the NWS response, require capacity building and support to develop a track record in being able to access funding from key donors.

Investment in local organisations is essential for the sustainability of responses in complex, protracted crises and for development, as emphasised in the Triple Nexus. This refers to the integrated approach of combining humanitarian, development, and peacebuilding efforts to address complex crises more holistically [35]. This dual approach, which includes localization and the Triple Nexus, aims to ensure that immediate relief efforts are complemented by long-term development and peacebuilding initiatives, thus reducing aid dependency by encouraging people affected to rapidly shift from emergency mode to income generation [36]. Additionally, it enhances fostering sustainable recovery, local ownership and building legitimate systems in alignment with people's culture, resources, and beliefs.

### The need for localization in a similar context, the Gaza example

The lessons from NWS's earthquake response underline

the necessity of bolstering local capacities and supporting local healthcare workers and responders in Gaza to ensure a more resilient and responsive humanitarian framework. This was clearly demonstrated in NWS in the response by local organisations including Idlib Health Directorate and the Syrian Civil Defence (White Helmets) in the wake of the earthquakes, without whom, there was the potential for even more livestock to be lost.

Though international organisations may have greater funds at their disposal and may be better able to respond rapidly in acute crises, their role in the humanitarian space is arguably changing, particularly where access is restricted, and they may be comparatively risk averse. Many have become so large that they are less agile, may face restrictions across borders, particularly in besieged areas such as Gaza, be less willing to take security risks compared to local humanitarian organisations and often lack local contextual knowledge or trust with local communities [37]. Gaza, like NWS, suffers from restricted access and severe security risks, due to the current escalation of attacks by Israel since October 2023, that impede international humanitarian responses [38]. These access issues compromise the international community's ability to provide timely and effective aid. The situation in Gaza has been even more complicated due to the rapid evolution of attacks on health facilities and infrastructure, multiple forced displacement of the population and severely restricted access [39], [40], [41]. The UN has accused Israel of imposing "unlawful restrictions" on humanitarian operations such as blocked land crossings and routes, communications blackouts and air strikes [42]. According to WFP's Deputy Executive Director, Carl Skau, the challenging operating environment makes it near-impossible for humanitarian operations to deliver urgently needed food aid [43]. As such, though international organisations have a role, whether through long-term projects or 'fly-in/ fly-out' 'medical or surgical missions' they do not in themselves build the capacity of local systems. However, their direct support may address a significant gap in the most acute, severe phases of conflict as seen now in Gaza and previously in Syria.

## Conclusion

The earthquakes in former NWS exposed significant gaps in the international humanitarian response, emphasising the critical need for localisation and preparedness in complex crises. Similar challenges are evident in other besieged areas like Gaza, where local responders and organisations play a crucial role. Moving forward, the global humanitarian system must support funding shifts

and empowerment of local entities to enhance their capacity and ensure more effective and sustainable responses to emergencies. The international community must also advocate for mechanisms that facilitate rapid access to besieged areas, bypassing political impediments to deliver timely aid. For Syria, in the sorry event that another earthquake or disaster should occur again in NWS, the response will be different given the fall of the regime as there will be the possibility of a depoliticised response to occur through state mechanisms. Beyond this, for lessons learned from the earthquake response to NWS, we argue that investing in local humanitarian actors not only addresses immediate needs but also builds long-term resilience in communities facing protracted conflicts and crises, supporting future development in early recovery.

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# ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICES (KAP) TOWARDS IBADAH FRIENDLY HOSPITAL (IFH) PROGRAM AMONG HEALTHCARE PRACTITIONERS AT AL-ISLAM SPECIALIST HOSPITAL : A PRELIMINARY STUDY

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## Abstract

**Background:** *Ibadah* Friendly Hospital (IFH) program was officially introduced by the Ministry of Health Malaysia (MOH) in 2014. The program is a paradigm shift from a secular paradigm into a *Tauhidic* paradigm in which a holistic approach in treating Muslim patients is applied. The IFH program in Al-Islam Specialist Hospital was officially launched in 2006. It has been more than 15 years since the hospital has implemented this program. Therefore, the objective of the study was to assess level of knowledge, attitude, and practices (KAP) towards *Ibadah* Friendly Hospital (IFH) program among healthcare practitioners at Al-Islam Specialist Hospital.

**Methods:** A cross-sectional study was conducted among healthcare practitioners to assess knowledge, attitude and practices towards IFH program. Data was collected through self-developed questionnaires from middle of January to middle of March 2023 and was analyzed by using Microsoft Excel and SPSS version 19. Scalar-scoring method was employed to analyze the collected data and then Bloom's cut off point was used to categorize the scores as high, moderate or low for knowledge, positive, neutral or negative for attitude, and good, moderate or low for practices associated with IFH program.

**Results:** A total of 44 healthcare practitioners participated in the study with 67% response rate. The findings revealed that 100% of the healthcare practitioners at the Al-Islam Specialist Hospital are having high level of knowledge and positive attitude towards *Ibadah* Friendly Hospital (IFH) program. 97.7% of the respondents showing good practices and only 2.3% showing moderate practices associated with IFH program.

**Conclusion:** The results highlight majority of the healthcare practitioners were having high level of knowledge, positive attitude and good practices associated with IFH program. Nevertheless, there is one area regarding the knowledge, attitude and practices associated with IFH program has to be improved among Al-Islam Specialist Hospital's healthcare practitioners. Based on the results of this study, to maintain high level of knowledge, attitude and practices among the healthcare practitioners, continuous mandatory trainings and courses on IFH programs as well as other appropriate interventions shall be conducted by the Academy of IFH. Further study shall be conducted among the non-clinical employees at this hospital so as to identify the overall level of KAP of the hospital's employees towards IFH program.

## Introduction

The healthcare sector in Malaysia continues as one of the crucial domains in the country today. Its healthcare system is divided into two highly developed sectors: a government-led and tax-funded public sector, and a thriving private sector. The Islamization of Malaysia healthcare services as a form of *ibadah* and institutionalization of Islamic values in medical field began in the early 1980's (Sinanović, 2012). The initial effort in instilling Islamic values was on female *awrah* which refers to any body part of women body that is prohibited from being revealed to other man or woman. It then followed by integration of Islamic values in the medical curriculum. This innovative step to Islamize the medical curriculum consists of two separate but closely related components that is Islamization and legal medicine (Kasule, 2009). These efforts were further expanded with the introduction of *Ibadah* Friendly Hospital (IFH) program by the Ministry of Health Malaysia (MOH) in 2014. This initiative stemmed from the Islamic Hospital of Jordan (Ishak et al, 2021<sup>a</sup>). Nevertheless, the term "IFH" was first use by Hospital Universiti Sains Malaysia (HUSM), a government teaching hospital in Penang in 2004 in its effort to integrate Islamic values in the hospital operation (Ministry of Health Malaysia, 2020). New Straits Times (2016) reported that there are many major hospitals nationwide both public and private hospitals have been recognized as IFH for providing facilities and guidance for patients to perform their *ibadah* while receiving treatments. Hospital Tengku Ampuan Afzan in Pahang, Hospital Banting in Selangor, Hospital Tawau in Sabah, and Hospital Jasin in Melaka to name a few are among the public hospitals that are recognized by MOH and Jabatan Kemajuan Islam Malaysia (JAKIM) as the IFH. Among private hospitals that rendered their services under IFH are Al-Islam Specialist Hospital, Hospital PUSRAWI, Pusat Rawatan Islam Ar-Ridzuan and Hospital Az-Zahrah.

IFH program is a concept used in hospital management to achieve excellence and self-identity among hospital employees as well as focusing on the well-being of patients through the application and appreciation during and after treatment. The aim of IFH program is to provide awareness through patient and family education to be closer to Allah SWT. The program is a paradigm shift from a secular paradigm into a *Tauhidic* paradigm in which a holistic approach in treating Muslim patients is applied which encompasses of physical, psychological, mental and spiritual aspects. The IFH concept and program are guided by Al-Quran and *Sunnah*, *Maqāṣid*

*al-Sharī'ah*, *Qawaid al-Fiqhiyah*, and concepts of *rukhsah* and *dharurat*. Practicing medicine is a profession and also a social obligation towards seeking the pleasure of Allah are the thrust of IFH program (Rahman, Zailani & Musa, 2018). In summary, the objectives of IFH are: (1) towards achieving *Mardhatillah* (acceptance of Allah SWT); (2) aiming for success in this world and hereafter; (3) treating and managing patients using a holistic approach; (4) assisting employees, patients and relatives to be closer to Allah SWT; (5) helping and guiding patients, employees and their family to perform *ibadah* especially *salat* (prayer); (6) providing the best services to the *ummah* (society); (7) application of work as *ibadah* and *amal*; and (8) hospital as a platform for *dakwah*.

Al-Islam Specialist Hospital, Kuala Lumpur was established in 1996 with total conviction to become an excellent Islamic hospital and as a *dakwah* center. Its establishment was directly related to the impressive achievement and performance of Islamic Hospital in Jordan in term of their facilities, clinical achievement, and implementation of Islamic values in the hospital management. The IFH program was officially launched by Al-Islam Specialist Hospital in 2006. The implementation of IFH program in Al-Islam Hospital is more inclusive and comprehensive in which it is not limited to provision of facilities, assistance, and guidance for patients to perform their *ibadah* but also extended to the manner in which the hospital is managed.

The IFH program provides a platform to strive for *mardhatillah* by the Al-Islam Specialist Hospital's healthcare practitioners, patients, and visitors. Hence, as part of the *Dakwahbil Hal*, the hospital management has taken a proactive role to assimilate and instill the IFH concept at every opportunity and level available. Every Al-Islam Specialist Hospital employee was given the awareness of their responsibilities not only as a Muslim employee who perform his/her duties but also as a "*daei*" whose role is to disseminate knowledge and preaching in his/her respective areas of work and considers his/her work as *ibadah*. In line with these aspirations, various programs and activities were initiated and organized internally such as Islamic Social Responsibility (ISR), *Usrah*, *Tazkirah*, daily Quranic reading, and Key Performance Index (KPI). Externally, Al-Islam Specialist Hospital has initiated and shared the IFH concept and programs with many hospitals locally and abroad, both private and public hospitals since 2006. The awareness campaign on IFH program consisted of many seminars and workshops. Since then, many hospitals affiliated to the Federation of Islamic Association Members (FIMA)

especially those in Pakistan and Nigeria have adopted IFH as their core program and some have refined the program further (Ishak et al, 2021<sup>a</sup>).

The implementation of IFH program in Al-Islam Specialist Hospital covers nine (9) elements that have become the Standards in IFH as mentioned below:

#### **Hospital Policy of Implementing IFH:**

The policy of the hospital is based on IFH and good values are integrated and assimilated in the hospital administration. Next, the vision and mission of the hospital must take into consideration the IFH program towards achieving excellent hospital services. All stakeholders must ensure IFH becomes an integral part of the hospital's policy.

#### **Organization Structure:**

The establishment of an IFH Committee with specific job scope and organizational chart shall reflect IFH aspiration. Hospital Director and senior members of the hospital management are directly involved in the IFH Committee. It is important to establish a Spiritual Department or a Chaplaincy Department in ensuring the successful implementation of IFH program. The IFH Committee has to conduct regular meetings at least four times a year and report must be submitted to the hospital management.

#### **Culture in IFH:**

In general, the culture in IFH is comprised of good values namely *itqan*, *ikhlas* and *ihsan*. Specific culture such as culture of smiling and *salam* are practices not only towards patients but also among the employees. Recitation of *Bismillah/Alhamdulillah/Insha' Allah* by all employees at appropriate time such as before or during or post procedure become a norm. As part of awareness and promotion efforts about the IFH culture, campaign, poster and banner are made available at designated areas in the hospital. Continuous monitoring on the practices and assimilation of this culture is conducted periodically.

#### **Human Resource Management:**

Basic training focuses on the awareness about IFH program is implemented for all employees. Other relevant programs and basic trainings on IFH are also conducted for them.

On top of that, manual for basic training in IFH is also prepared. In ensuring sustainability of the program, regular monitoring is made available.

#### **Facilities for IFH:**

*Ibadah* facilitation is further strengthened through the provision of *ibadah* facilities such as *qiblah* direction, clean area, booklet on *ibadah* guidelines for patients, bottle spray, *tayammum* powder, and audio visual for prayer reminder. Furthermore, patients' attire during delivery or procedure and surgery as well as in ward shall cover the *awrah*. Separate rooms or wards for different gender are also provided.

#### **Standard Operating Procedures (SOPs) in IFH:**

There are general SOPs on the assimilation of good values at all levels that reflects good character or *akhlaq*. SOPs in all clinical settings including orientation for new admission, pre and post procedures are to be followed in day-to-day running of the hospital. In addition, there shall be a chaperone for patient who seek treatment from medical employee of the opposite gender. SOPs in guiding and assisting patients to perform *ibadah* are also made available.

#### **Dignity of Patients and Employees:**

Dignity of patients and employees is cared for such as in the case of ECG and catheter are to be performed by same gender. In addition, *awrah* of patients in the operation theatre or delivery room must follow the *Shari'ah* guidelines.

#### **KhusnulKhatimah:**

Chaplain services is established which comprised of *talqin* services and spiritual support for patients and relatives. Besides that, it also offers assistance in preparing a will (*wasiat*) for the family as well as assistance for the funeral arrangement.

#### **Quality Management:**

The implementation of IFH is monitored by the Quality Committee. In the effort to ensure quality of the IFH program is the priority, there is also internal and external audit exercises. On top of that, patient's feedback regarding the IFH program in the hospital is obtained through provision of QR code that has been made available at many areas in the hospital. Scheduled monitoring of the programs is developed to ensure the smooth running of the program and to identify loopholes in its implementation.

## **PROBLEM STATEMENT**

In the Malaysian context, much of the research published on the IFH program and its implementation are either conceptual papers or literature review or review papers. Hammad et al (2018) published a literature review on the



implementation of IFH in Malaysian Islamic Hospital Consortium (KHIM) meanwhile Ishak et al (2021)<sup>a</sup> and Ishak et al (2021)<sup>b</sup> published conceptual papers on IFH and Islamization of health services through IFH. A paper presented at the Conference Proceeding such as by Mohd Ariff et al (2021) was centred on the framework of an IFH. Other related study on IFH was focusing on service quality in Muslim Friendly Private hospitals (Azman et al, 2021). Norwina et al (2012) conducted a qualitative approach of literature reviews on what makes a hospital with a “soul” or *Ibadah* Friendly. Mohammad Aizat, Betania, MohdAnuar, and Muhammad Hadi (2019) carried out a study on the concept and framework of Muslim Friendly hospital in Malaysia pertaining to *Shariah* compliance meanwhile NurHidayah, Zurina, and Zainal, (2019) conducted a case study on the adoption of *Shariah*-based and Muslim friendly practices at the selected medical tourism hospitals in Malaysia. On the other spectrum, Shaharom& Abdul Rahman (2016), Majdah& Khadijah (2017) and Shaharom, Shahimi, and Roslan (2019) were focusing on the *Shariah*compliant healthcare services in Malaysia. In addition, there are qualitative research related to IFH that is on the implementation of spiritual guidance, for example a study by Muhammad Faisal, MohdZainuddin, and SitiJamiah (2020) and Muhammad Faisal, SitiJamiah and Norhisham (2020) as well as a conceptual paper on Muslim Chaplaincy in IFH by Surina, MohdZulkifli, NurulAisyah, Izzati, and Ishak (2021).

There is limited empirical research and scientific data on the level of knowledge, attitude, and practices (KAP) related to comprehensive implementation of the IFH program. Most research conducted on KAP in IFH was mainly focused on performing *salat* (prayers) among Muslim patients in public hospitals. For instance, Abdul Hadi et al (2013) conducted a KAP study among in-ward patients in selected public hospitals such as Queen Elizabeth Hospital, Sabah, SultanahNurZahirah, Terengganu, and BatuPahat Hospital, Johor. Muhammad Shamsir et al (2015) also conducted a KAP study on performing *salat* (prayers) among Muslim patients in a public hospital in Langkawi, Kedah. There is however, quantitative research conducted on the effectiveness of the IFH course among the hospital staff which includes doctors, nurses, assistant health officers, medical assistants as well as non-clinical employees. The two research were also carried out in the selected public hospitals in Pahang with the focus also on prayers (*salat*) for sick patients (Kow et al, 2019; Kow et al, 2020).

As per the above discussion, there is a dearth of research on KAP towards *Ibadah* Friendly Hospital (IFH) program among healthcare practitioners at the private

hospital. Thus far, Noor Azizah (2019) conducted an empirical study on KAP towards the comprehensive implementation of IFH program among selected employees at the public and private hospital in Malaysia. Furthermore, in the case of Al-Islam Specialist Hospital, the IFH program is not new among its employees. It has been more than 15 years since the hospital has implemented this program. Therefore, it is deemed necessary to examine the knowledge, attitude, and practices towards IFH program among its healthcare practitioners. Hence, this study was conducted to gain some insights and current situation with relation to IFH program at this hospital. Identifying existing knowledge, attitude, and practices (KAP) towards among healthcare practitioners at Al-Islam Specialist Hospital is a first key step to further refine a successful IFH program implementation. The findings will be able to assist hospital administration to strategize and design specific intervention with regards to the possible areas for improving the practices of the program. The information and understanding on this matter would not only benefit the Al-Islam Specialist Hospital but would also benefit and be replicated by other *Ibadah* Friendly Hospitals in Malaysia.

## METHODOLOGY

### Study setting and design

This study design was quantitative and cross-sectional, conducted from the middle of January to the middle of March 2023 among Al-Islam Specialist Hospital’s healthcare practitioners.

The study population of this study were 66 healthcare practitioners consisted of medical specialists, medical officers, nurses, medical assistants and caregivers whose job responsibility is directly involved with patient care and/or provide treatment to patients.

Only those who were under the category of healthcare practitioners and agreed to participate were involved in this study.

### Questionnaire Design

The study was conducted using a self-developed questionnaire through an extensive literature review and a face-to-face interview with the experts of the IFH program at the hospital.

The questionnaire was designed to capture the knowledge (K), attitude (A), and practices (P) towards the IFH program among the healthcare practitioners. The content, rationality and validity of the questionnaire were assessed and validated using the opinions of experts of the IFH program at the Al-Islam Specialist Hospital. The reliability of the questionnaire was calculated using Cronbach Alpha value of 0.836. The questionnaire was designed in Bahasa Malaysia, a national language where all respondents were well-versed.

The questionnaire consists of four (4) sections. Section A of the questionnaire comprised of five (5) questions about demographic profile of the respondents namely gender, age, education levels, current position and duration working at Al-Islam Specialist Hospital. The remaining sections consists of (a) questions related to the knowledge level of the healthcare practitioners towards the IFH program (Section B), (b) questions related to the attitude towards IFH program (Section C), and (c) questions that evaluate the practices associated with IFH programs (Section D).

#### **Data collection method**

Questionnaires were distributed to healthcare practitioners at the Al-Islam Specialist Hospital at various wards and departments in order to obtain responses from a wide range of healthcare practitioners at the hospital. Questionnaires were uploaded through Google Surveys and disseminated by forwarding web page link through social media outlet such WhatsApp and also through staff emails. Participation was voluntary and all respondents were kept anonymous. In addition, follow-up was done twice to ensure good response rate.

#### **Data analysis and interpretation**

Collected data was compiled and keyed-in into the excel sheet after it was thoroughly checked, cleaned and coded before it was entered into SPSS version 19. The study findings are explained in words, tables, and other statistical summary techniques.

In the knowledge and practices sections (Section B and D), respondents were asked to choose “yes” or “no” options. In the attitude section (Section C), respondents were also given two (2) choices of answer based on 2-Likert scale from 0 to 1 (agree and disagree).

The analysis of these sections was done on the basis of a scalar-scoring method. 1 point was given for correct response and 0 point is given for wrong response. The scores for knowledge, attitude and practices were calculated as percentage scores by dividing the total correct answers by the respondents with the maximum scores multiplied by 100.

Bloom’s cut off point was then used to categorise as high level of knowledge if the sum score was between 80% to 100%, moderate level of knowledge if the sum score was between 60% and 79%, and low level of knowledge if the sum score was less than 60%. In the attitude section (Section C), sum score between 80% to 100% was categorized as positive attitude, sum score between 60% and 79% was categorized as neutral attitude and sum score less than 60% was categorized as negative attitude. Similarly, for practices, sum score between 80% to 100% was categorized as good practices, sum score between 60% to 79% was categorized as moderate practices and sum score less than 60% was categorized as low practices.

#### **Ethical consideration**

This study was conducted after approval from the Al-Islam Specialist Hospital’s administration was granted. Data was kept confidential and consent to participate in the study was obtained from the respondents after permission to conduct the study was given by the hospital administration.

## **RESULTS**

#### **Demographic characteristics of healthcare practitioners:**

A total of 47 questionnaires were received, however only 44 were usable for this study yielding a 67% response rate. Table 1 reveals demographic characteristics of the respondents. Out of 44 respondents, 39 were female (88.6 %) and 5 were males (11.4 %). The majority of the respondents were between the ages 20 – 30 years (15, 34.1%).

Thirteen (29.4%) respondents were 31 – 40 years, 9 (20.5%) respondents were aged between 41 – 50 years, 4(9.1%) respondents were 51 – 50 years and 3(6.9%) of the respondents were aged 60 years and above.

Table 1. Demographic characteristics of healthcare practitioners (n=44)

Variable	Category	Frequency	Percentage (%)
Gender	Male	5	11.4
	Female	39	88.6
Age	20 – 30 years	15	34.1
	31 – 40 years	13	29.4
	41 – 50 years	9	20.5
	51 – 60 years	4	9.1
	60 years and above	3	6.9
Education Level	Malaysian Certificate of Education	6	13.6
	Diploma	30	68.2
	Bachelor Degree	6	13.6
	Master Degree	2	4.6
	PhD	0	0.0
Current Position	Medical Specialist	1	2.3
	Medical Officer	3	6.8
	Nurse	25	56.8
	Medical Assistant	9	20.5
	Dietician	1	2.3
	Others	5	11.3
Duration Working at Al-Islam Specialist Hospital	Less than 1 year	9	20.5
	1 – 5 years	12	27.3
	5 – 10 years	6	13.6
	11 – 15 years	8	18.1
	15 – 20 years	5	11.4
	More than 20 years	4	9.1

Most respondents were diploma holders 30 (68.2%), while 6(13.6%) were Bachelor degree and Malaysian Certificate of Education holders and only 2(4.6%) of the respondents were Master degree holders. Among the included respondents, 25(56.8%) were nurses, 9(20.5%) were medical assistants, 3(6.8%) were medical officers, and 1(2.3%) was a medical specialist. The remaining included 1(2.3%) dietician and 5 (11.3%) others. The highest number of the respondents have been working at Al-Islam Specialist Hospital for 1–5 years (27.3%), followed by 9 for less than a year (20.5%), 8 for 11–15 years (18.1%), and 6 for 5-10 years (13.6%). Five respondents have been working for 15–20 years (11.4%) and 4(9,1%) have been working for more than 20 years in the hospital.

**Knowledge on IFH program among healthcare practitioners:**The frequency distribution of respondents' knowledge towards IFH program is presented in Table 2a.

Table 2a. Knowledge on IFH program among healthcare practitioners

Questions	Responses	Frequency (n)	Percentage (%)
Do you know <i>Ibadah</i> Friendly Hospital (IFH) program was officially introduced by Ministry of Health Malaysia in 2014?	Yes	39	88.6
	No	5	11.4
Do you know the main objective of the implementation of <i>Ibadah</i> Friendly Hospital (IFH) program is to assist patients in performing <i>ibadah</i> ?	Yes	42	95.5
	No	2	4.5
Do you know the culture of “Smile” and “Salam” are two important elements in <i>Ibadah</i> Friendly Hospital (IFH) program?	Yes	44	100
	No	0	0
Is <i>Ibadah</i> Friendly Hospital (IFH) program in this hospital only for nurses?	Yes	0	0
	No	44	100
Do you know there is a Committee of <i>Ibadah</i> Friendly Hospital (IFH) program in this hospital?	Yes	42	95.5
	No	2	4.5
Are you aware that this hospital has <i>Ustaz/Ustazah</i> or Religious Officers?	Yes	44	100
	No	0	0
Pregnant Muslim women whose water bag (amniotic fluid) have been ruptured shall be reminded to perform <i>solah</i> (prayer).	Yes	41	93.2
	No	3	6.8
Are you aware that giving a reminder to patients to perform <i>solah</i> (prayer) is the responsibility of every healthcare practitioner?	Yes	44	100
	No	0	0
Do you know that health should be seen from a holistic perspective that include physical, mental, psychological and spiritual?	Yes	44	100
	No	0	0
Are you aware that among the important objectives of <i>Ibadah</i> Friendly Hospital (IFH) program is to be closer to <i>Allah SWT</i> by healthcare practitioners, patients and their families?	Yes	44	100
	No	0	0
Do you know spiritual guidance service is among the services that must be provided at <i>Ibadah</i> Friendly Hospital (IFH)?	Yes	44	100
	No	0	0
Do you know basic facilities such as <i>Qiblah</i> direction, <i>tayammum</i> powder/dust and <i>ibadah</i> guidelines booklet for patients must be provided at the <i>Ibadah</i> Friendly Hospital (IFH)?	Yes	44	100
	No	0	0
Are you aware that reciting “ <i>Bismillah</i> <i>hirahmanirahim</i> ” before performing any procedures or task is an important practice by all employees at the <i>Ibadah</i> Friendly Hospital (IFH)?	Yes	44	100
	No	0	0
Do you know that the concept and <i>Ibadah</i> Friendly Hospital (IFH) program are based on the <i>Al-Quran</i> and <i>Sunnah</i> , <i>Maqāsid al-Sharī'ah</i> , <i>Qawaid al-Fiqhiyaah</i> as well as the concepts of <i>rukhsah</i> and <i>dharurat</i> ?	Yes	41	93.2
	No	3	6.8
Do you know provision of facilities for <i>HusnulKhatimah</i> is part of the <i>Ibadah</i> Friendly Hospital (IFH) program?	Yes	38	86.4
	No	6	13.6

The total score for this section is 15 and the mean score for knowledge among 44 healthcare practitioners is 14.52 ( $\pm 0.567$ ). 61.4% (27/44) of the respondents are above mean score. The lowest score value for among the respondents are on the official introduction of *Ibadah* Friendly Hospital (IFH) program by Ministry of Health Malaysia in 2014 (88.6%, 39/44) and provision of facilities for *HusnulKhatimah* is part of the *Ibadah* Friendly Hospital (IFH) program (86.4%, 38/44). Based on Bloom’s cut off point as shown in Table 2b, all of the respondents (44, 100%) were having high level of knowledge on IFH program.

Table 2b. Knowledge score on IFH program among healthcare practitioners

Category	Scores (%)	n	%	
Knowledge	High level of knowledge	12-15 (80%-100%)	44	100
	Moderate level of knowledge	9-11 (60%-79%)	0	0
	Low level of knowledge	<9 (60%)	0	0
Total		44	100	

**Attitude on IFH program among healthcare practitioners:** Findings regarding the frequency distribution of respondents' attitude on IFH program are presented in Table 3a.

Table 3a. Attitude towards IFH program among healthcare practitioners

Questions	Responses	Frequency (n)	Percentage (%)
In my opinion, patients' <i>ibadah</i> is the responsibility of the patients themselves.	Agree	4	9.9
	Disagree	40	90.1
I am ready to do anything beyond my field of duty to assist patients to perform <i>ibadah</i> .	Agree	44	100
	Disagree	0	0
In my opinion, positive words to patients could help to calm them down.	Agree	44	100
	Disagree	0	0
I feel awkward to offer a smile and salam to other individuals who are at the hospital.	Agree	0	0
	Disagree	44	100
From my viewpoint, <i>aurah</i> of patients must be taken care of by the patients themselves.	Agree	2	4.5
	Disagree	42	95.5
I am ready to offer my assistance to fulfil patients' <i>ibadah</i> requirement even though I am busy.	Agree	42	95.5
	Disagree	2	4.5
I believe <i>Ibadah</i> Friendly Hospital (IFH) program is able to enhance healthcare practitioners' competence in assisting patients to perform <i>ibadah</i> .	Agree	44	100
	Disagree	0	0
In my opinion, providing reminder to patients to perform <i>solah</i> (prayer) is the responsibility of healthcare practitioners.	Agree	40	90.1
	Disagree	4	9.9
I am ready to give a reminder to a pregnant Muslim women whose water bag (amniotic fluid) has been ruptured to perform <i>solah</i> (prayer) in a situation that requires me to do so.	Agree	40	90.1
	Disagree	4	9.9
I am of the opinion that I must give spiritual support to patients regardless of their religion and race.	Agree	43	97.7
	Disagree	1	2.3
I am of the opinion that patients who do not follow doctors and/or nurses' instruction shall be advised.	Agree	36	81.8
	Disagree	8	18.2
In my opinion, patients shall be reminded to perform <i>Solah Jama'</i> before undergoing a long procedure.	Agree	44	100
	Disagree	0	0
I believe Muslim patients must be reminded to recite <i>Syhadah</i> before they are given sedative/LA/GA.	Agree	43	97.7
	Disagree	1	2.3
In my opinion, spiritual aspect in patient care is utmost important.	Agree	44	100
	Disagree	0	0
From my standpoint, recitation of " <i>Bismillahirrahmanirahim</i> " before performing any procedures or task is important.	Agree	44	100
	Disagree	0	0

The total score for this section is 15 and the mean score for attitude among 44 healthcare practitioners is 14.43 ( $\pm 0.837$ ). 63.6% (28/44) of the respondents are above mean score. The lowest score value among the respondents is opinion on whether patients who do not follow doctors and/or nurses' instruction shall be advised (81.8%, 36/44). Based on Bloom's cut off point as depicted in Table 3b, all of the respondents (100%, 44) were having positive attitude towards IFH program.

Table 3b. Attitude score on IFH program among healthcare practitioners

	Category	Scores (%)	n	%
Attitude	Positive attitude	12-15 (80%-100%)	44	100
	Neutral attitude	9-11 (60%-79%)	0	0
	Negative attitude	<9 (60%)	0	0
Total			44	100

**Practices associated with IFH program among healthcare practitioners:** Table 4a shows the frequency distribution of respondents' practices associated with IFH program. The total score for this section is 15. The mean score for practices among 44 healthcare practitioners is 14.61 ( $\pm 0.859$ ). 77.3% (34/44) of the respondents are above the mean score. The lowest score value among the respondents is on giving advice to patients who do not follow doctors and/or nurses' instruction (86.4%, 38/44).

Table 4a. Practices associated with IFH program among healthcare practitioners

Questions	Responses	Frequency (n)	Percentage (%)
I provide assistance to patients in performing <i>solah</i> (prayer) when required.	Yes	43	97.7
	No	1	2.3
I offer motivational words to patients so that they will be more encouraged to recover and be healthy.	Yes	43	97.7
	No	1	2.3
I always offer smile and <i>salam</i> to individuals at the hospital whether they are known to me or otherwise.	Yes	44	100
	No	0	0
I provide reminder to Muslim patients to perform <i>solah</i> (prayer).	Yes	42	95.5
	No	2	4.5
I always ensure that the patients' <i>aurah</i> is covered and not exposed.	Yes	44	100
	No	0	0
I provide spiritual support to patients regardless of their religion and race.	Yes	43	97.7
	No	1	2.3
I advise patients who do not follow doctors and/or nurses' instruction.	Yes	38	86.4
	No	6	13.6
I remind patients to perform <i>Solah Jama'</i> before undergoing a long procedure.	Yes	43	97.7
	No	1	2.3
I remind Muslim patients to recite <i>Syahadah</i> before they are given sedative/LA/GA	Yes	41	93.2
	No	3	6.8
I ask for patients' permission before providing treatment.	Yes	44	100
	No	0	0
I recite " <i>Bismillah</i> hirahmanirahim" before performing any tasks.	Yes	44	100
	No	0	0
I always try to provide the best towards patient care.	Yes	44	100
	No	0	0
I regard my workplace as a platform to do good deeds.	Yes	44	100
	No	0	0
I always give excellent service to patients and their family members.	Yes	44	100
	No	0	0
I, not only perform my responsibilities towards tasks given to me but also carry out my responsibilities as a " <i>daei</i> ".	Yes	42	95.5
	No	2	4.5

Based on Bloom’s cut off point as presented in Table 4b, 97.7% (43) were having high practices associated with IFH program and only 2.3% (1) was having moderate practices associated with IFH program.

*Table 4b. Practices score on IFH program among healthcare practitioners*

	Category	Scores (%)	n	%
Knowledge	Good practices	12-15 (80%-100%)	43	97.7
	Moderate practices	9-11 (60%-79%)	1	2.3
	Low practices	<9 (60%)	0	0
Total			44	100

## DISCUSSION

This preliminary study offers information on the knowledge, attitude and practices associated with IFH program among the healthcare practitioners at Al-Islam Specialist Hospital. In this study, the overall response rate of 67% is considered high with respect to online surveys and at an individual level of analysis. This is supported by a meta-analysis on response rates of online surveys in published research by Wu, Zhao and Fils-Aime (2022) found that the average online survey response rate is 44.1%. A study by Holtom et al. (2022) also found that response rates for journals that focus primarily on the individual level of analysis was almost universally near or above 70%. A higher response rate for this study was also contributed to by a clearly defined and refined population and using phone calls as reminders to participants.

Generally, knowledge, attitude and practices are key components of behavioral change models. According to the theory of KAP (knowledge, attitude and practices), knowledge refers to understanding and using of information of any given topic, attitude refers to feeling or reaction towards that given topic (Ajzen&Fishbein, 2000), and practices refer to the ways in which the knowledge and attitude are demonstrated (Kaliyaperumal, 2004; Bano et al., 2013). Previous studies have identified interconnections between knowledge, attitude and practices (e.g., Hungerford & Volk,1990; Valente, Paredes & Poppe,1998; Muhammad Shamsir et al (2015); Soyam et al., 2017; Monje et al., 2020; Lee, Kang & You, 2021; Sagar et al., 2022).

In this study, estimating the level of respondents’ knowledge on IFH program was divided into three levels

namely high level of knowledge, moderate level of knowledge and low level of knowledge. The results of the current study showed that 100% (44) of the respondents had high level of knowledge on IFH program. This is due to adequate information sharing and trainings related to IFH program were provided by the organization.

In this study, the respondents’ attitude towards IFH program was assessed as having a positive attitude, a neutral attitude and a negative attitude. All 44 of the respondents (100%,) showed a positive attitude towards the IFH program. Continuous training and a supportive working environment towards the program have nurtured a positive attitude among the healthcare practitioners.

In this study, the level of practices associated with IFH program was measured as having good practices, moderate practices and low practices. The current study demonstrated that a significant number of respondents 43 (97.7%) having good practices associated with IFH program and only 1 (2.3%) of the respondents having moderate practices associated with IFH program. This could be explained by the fact that some of the respondents are working less than a year and have not been confirmed in their job position.

Based on the results of this study, to maintain high level of knowledge, attitude and practices among the healthcare practitioners, continuous mandatory trainings and courses on IFH programs for all healthcare practitioners are to be conducted by the Academy of IFH. Annual lectures, seminars, webinars and workshops on IFH for all its healthcare employees can also be organized by the Academy of IFH.

In addition, attention should also be paid to one of the aspects of attitudes and practices of the healthcare practitioners that were found to be deficient including giving advises to patients who do not follow doctors and/or nurses' instruction. Trainings and courses on IFH should include interpersonal communication skills in the effort to develop effective communication with patients.

The main limitations of this study are threefold. The first limitation is that knowledge questions were based on certain important areas of knowledge and do not represent the overall knowledge about IFH programs. Secondly, this study only relied on a self-administered questionnaire which may contribute to response bias. Finally, due to time-constraints, most of the respondents especially medical specialists were unable to participate in the current study.

## CONCLUSION

In conclusion, good knowledge, attitude and practices towards IFH programs are important factors in determining the success of IFH program at IFH hospitals. The findings suggest that the majority of the healthcare practitioners at Al-Islam Specialist Hospital have a high level of knowledge, positive attitude and good practices associated with IFH program. However, one aspect of attitudes and practices of the healthcare practitioners were found to be deficient. Therefore, continuous training and other effective interventions are required to maintain desirable level of KAP among the healthcare practitioners towards IFH programs. Further studies should focus on level of KAP among non-clinical employees in order to understand the overall KAP among Al-Islam Specialist Hospital's employees.

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## The Istanbul Museum for the History of Science and Technology in Islam (An Overview).

(By Prof Fuat Sezgin – Published in 2011)

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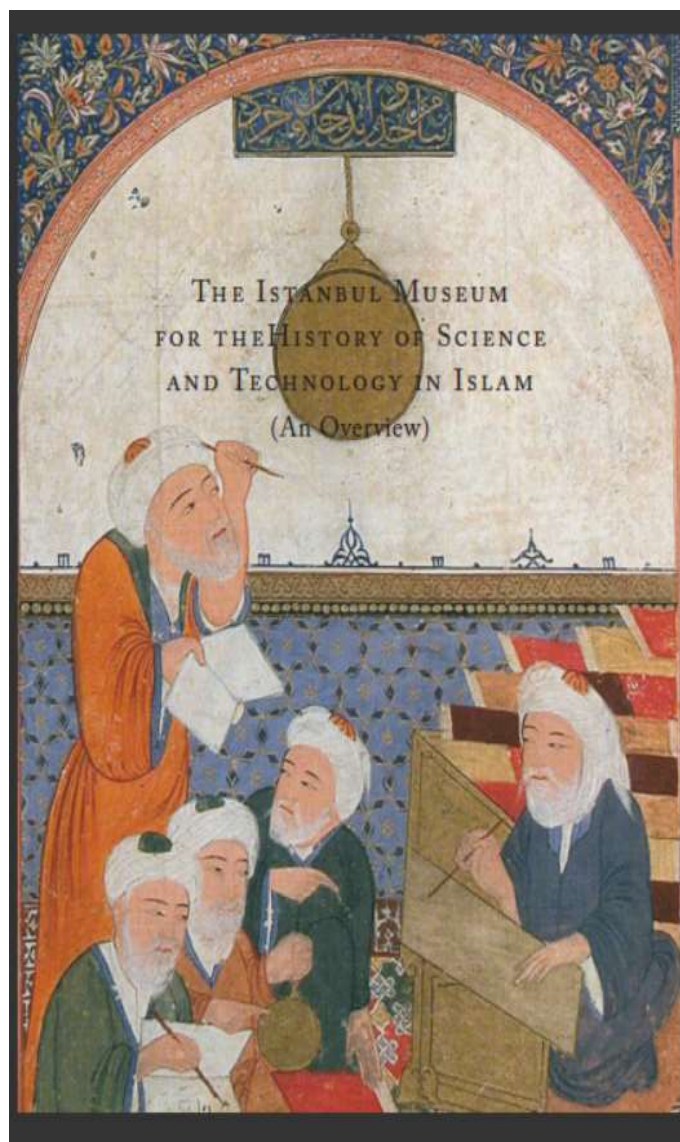
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The book of the History of science and technology in Islam by Fuat Sezgin is divided into 5 volumes and 13 chapters, whereby the author guides the readers in a journey through time and space, showcasing the scientific development during the golden age of the Islamic civilization.

Science grew to become an integral part of the Islamic nation's identity, with various contributions from a diverse pool of individuals of different cultures, ethnicities and even religions. The early days of scientific Islamic discoveries faced many challenges due to a lack of the sources in Arabic and funding; nonetheless, it encouraged many scientists to seek and spread the knowledge, fueling some of the greatest unearthing and preservation efforts that paved the way for the golden age, the renaissance and even the industrial revolution in centuries to come. These scientific interactions led to more understanding of both cultures.

As early as the third decade following the rise of Islam, the newly established state expanded its territories through conquests and diplomatic convoys. To the north, it reached Asia Minor and western Persia, and to the south-west, it extended to Egypt. The Muslims captured Damascus in 636 AD, Emessa (modern-day Homs) and Aleppo in 637 AD, Antioch (now Antakya) in 638 AD, and Alexandria in 642 AD. These conquests brought them into lasting contact with the populations of these cities, who had been ruled for centuries by the Roman and later Byzantine empires. The conquerors were known to have treated these natives well and effectively utilized their knowledge and technical skills. The state encouraged its new citizens integration, embraced their



multiculturalism/multilingualism and their unique skills, resulting in the Translation movement of Antiquity books relating to astronomy, geography, navigation, math, geometry and optics. All of which, allowed to spread of knowledge and drove the development in these areas and even the establishment of new branches of science.

**The Medicine** chapter is divided into 5 parts. These include medical instruments, a series of anatomical illustrations, the anatomy of the organ of vision, portraits of famous physicians and instruments and models.

The Arabic scientific literature was established in geography, botany, zoology, chemistry, astronomy, physics, as well as in medicine. In the 3<sup>rd</sup>- 9<sup>th</sup> century, the Islamic scholars built on their Greek predecessor's achievements and illustrated the human body parts.

In the 30<sup>th</sup> treatise of his extensive surgical book, The Andalusian physician 'Abbas Al-Zahrāwī details and illustrates over 200 instruments. In his book, he expressed regret regarding the neglect of surgery over the period leading to his era, mentioning that only a few illustrations from earlier works were known, however, this should be understood as referring to a specific, limited geographical area.

The 30<sup>th</sup> treatise of al -Zahrāwī's book played a crucial role in the evolution of European surgery starting in the 13<sup>th</sup> century, particularly due to its detailed descriptions and illustrations of medical instruments and treatment procedures. It is striking to observe the widespread presence of al -Zahrāwī's surgical manuscripts in European libraries were translated to Latin, Hebrew, and Provençal.

Drawings of human anatomy, pathology and physiology along with descriptive text were customary in all medical books. The Muslims were infamous for illustrations of the human body explaining the anatomy behind it. This part of the chapter demonstrates how the Islamic – Arabic culture excelled in the field compared to its western's counterpart, the advancements accomplished and traces the origin of knowledge back to the Greeks.

The Islamic- Arabic culture presented works on the bone structure, the nervous system, muscles, veins and arteries, examples include pregnant woman's circulatory system shown in (*Tasrih-I Mansuri*) book, by the Persian physician Mansur b. Muhammad b. Ahmad b. Yusuf in the late 8<sup>th</sup>/14<sup>th</sup> century, which had been published several times in India since 1848.

K. Sudhoff who studied the book compared the current anatomical drawings to the Persian manuscripts texts and the early western books in his investigations into the anatomical illustrations. He concluded that the series of anatomical pictures along with the texts reached the west at two distinct periods. A 13<sup>th</sup> century manuscript from Provence kept with the Basel family, was the only manuscript to contain illustrations of a skeleton along with its legend, and female genital organs (without a diagram of the embryo).

Sudhoff discovered that the manuscript preserved by the Basel family was different from the Latin manuscripts at cloister in Prufening and Scheyern from ca. 1154 / ca. 1250, respectively. He stated that the manuscripts from Provence have been combined from two distinct compilations of the 11<sup>th</sup> and 12<sup>th</sup> century which originated in Salerno, while the manuscripts from Prufening, Scheyern and Oxford reached the occident via the Byzantium reign. On the hand, the Persian manuscripts originates in Greek, they were written in Alexandria and translated to Arabic during (4<sup>th</sup>/10<sup>th</sup> century) by Ali B. Al Abbas Al- Magusi and Avicenna (Ibn Sina).

This medicinal chapter describes the ophthalmology advancements, the medical progress made during the era and illustrates the differences in the western and Islamic approaches. The old scientific Arabic literature depended on textual descriptions and was not heavily illustrated, except for the fields of mathematics and astronomy. But even in these fields it is not infrequent that the spaces for figures are left empty by the copyists, probably in anticipation that a specialist would be entrusted to complete this work.

In 1908, Julius Hirschberg criticized the lack of figures in the Arabs optical books and how their textbooks of ophthalmology were short anatomical illustrations of the eye. However, his statements were proved untrue, and was not aware the three anatomical illustrations of Hunain b. Ishaq discovered at later date.

Thus, Hirschberg's looked for the oldest Arabic drawing of the eye known to him, he says: "Fortunately we have this illustration of the optic nerve crossing together with that of the eye and the brain in a later Arabic text on ophthalmology, that by Halifa from Syria, from about 1266 our era, but only in the Jeni [Cami] manuscript of this work, not in the manuscript from Paris". Which led Hirschberg to the conclusion that Arabs had a crucial influence on ophthalmology since Hunain ibin Ishaq was an influential Nestorian Christian translator, scholar,

physician, and scientist from Iraq, he translated lots of Greek works and tried to exploit the anatomy, physiology, and the pathology of the brain in his illustrative drawings in the book.

However, Hirschberg acknowledged the Arabs advancements and efforts, so he didn't criticize the Arabs for dragging the optic nerve crossing unnaturally to the front, in an imaginary stylized representation of the brain for better clarity and Hirschberg stated that westerners did that in their diagrams as well.

Hirschberg concluded that the anatomy and the nomenclature of the eyes were originated by Arabs not the Greeks, citing that the current terminology used in the west is derived from the medieval Latin translations of the Arabic terms. He also highlighted that the important concept handed down from *the Kitab Al- Mansuri* by Al-Razi is the understanding that the pupil contracts in response to light.

In 1941, S.L. Polyak wrote that structural and functional knowledge of the eyes was acquired by western Europe through the late Middle Ages, along with a creative pictorial representation that was demonstrated first by the Arabs with other intellectual and practical pursuits such as medicine, philosophy, alchemy, etc.

S.L. Polyak considered Ibn al- Haitham and his commentator Kamaladdin Al- Farisi (ca. 700/ 1300) as an important representation of the physiological optics field development, due to their connection to well-known works on optics written in Europe in the 13<sup>th</sup> century. In addition to the works of Ibn Sina and Ibn al-Haitham which had been available for more than a century in Latin translations.

Kamaladdin Al- Farisi's achievements were appreciated by Schramm in the following words: "Through his deliberations and experiments Kamaladdin Al- Farisi has been led to a result which was achieved afresh only in

1823 by Johannes Evangelista Purkynje. Kamaladdin Al-Farisi was the first to detect definite proof for the reflection on the upper surface of the lens and gave reasons for it in the context of his theory in an excellent manner."

The illustration by Hunain b. Ishaq (d.259/873) of the eye is the oldest known preserved pictorial anatomical diagram. As S.L. Polyak's book (*The Ten Treatises on The Eye*) included a well described illustrations of the eye, optic nerve, and its connection with the brain, the physiology, pathology and the treatments of eye diseases as he used the information of (*Kitab Al – Ashr Makalat Fi Al -Ain*) book by Hunain b. Ishaq.

**Chemistry and Alchemy** reached the Arab regions early in the middle of 2<sup>nd</sup> / 8<sup>th</sup> century compared to the West. One of the significant figures of Arab alchemy is Gabir b. Haiyan. As well as Prince Halid b. Yazid, who was among the first Arabs to engage himself in this field (after 102/720) and he is the first to suggest translating books on alchemy, medicine and astronomy along with citing every reference precisely, paving the way to the modern research method and it's recorded that Greek manuscripts were translated to Arabic following his orders.

**Minerals and Fossils** were studied by Julius Ruska (J. Ruska). He studied the participating cultures that impacted the history of science distinguishing between four cultural areas such as: the Egyptian–Babylonian, the Greco–Roman, the Islamic, and the Christian–Occidental, which leads into the modern era. In this section, he clarified that Greeks had substantial knowledge regarding mineralogy but lacked explanations and the origin of this information whether they borrowed from other cultures or their own, where no references of the information chains were cited. On the other hand, the Arabic – Islamic scholars have cited and credited every source with great precision, along with mentioning each adopted information of the mineral, the author's name, the title of the work and the chapter.

## Syria: A New Dawn but Medical Challenges Remain

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On 8<sup>th</sup> December 2024, quite unexpectedly, the Assad Regime imploded.

While the vast majority of Syrians, both inside Syria and abroad, are immensely relieved and jubilantly elated by the fall of the Assad tyrannical regime, there certainly are serious concerns and immense challenges facing the Country and its people.

Needless to say, the country as a whole is facing monumental challenges – political, economic and infrastructure issues being the most prominent.

Over the past year or so, humanitarian work inside Syria was facing considerable challenges, especially with the emphasis and interest shifting towards the horrific events taking place in Gaza and the West Bank, and later in Lebanon. Most international NGOs, as well as governmental humanitarian organisations, have shifted their focus towards delivering aid to Gaza and West Bank, given the severity of the humanitarian crisis there. Most organisations ended up freezing, if not totally cancelling, their Syria programmes to allow them to divert funds, staffing and resources to deliver urgently needed aid to Gaza and West Bank.

The recent overwhelming developments in Syria have made the overall humanitarian situation there even more complex, and the needs on the ground today are truly dire. And while these pressures apply to all aspects of humanitarian work, health care is particularly pressured.

Ever since the start of the Syrian uprising and the health care crisis that followed, humanitarian aid organisations delivering health care were very heavily – and very efficiently – involved in providing a good standard of

health care, with minimum or no cost for patients at the point of delivery of care. That reality applied to North West Syria, the region that humanitarian organisations had fairly good access to. Now that the Assad Regime has collapsed, access to the whole of Syria is open to humanitarian organisations, and the needs on the ground, as well as the expectation of the population, are rising exponentially.

Health care in what used to be “Regime-controlled” regions has always been immensely stretched and has always been under significant pressures due to dilapidated infrastructure and insufficient resources, human and other. With the exception of certain international humanitarian bodies like ICRC and WHO, humanitarian organisations had little or no access to those areas – until the recent upheaval. Now, humanitarian organisations are faced with the challenges of having to thinly spread their rather limited resources over the newly accessible, much wider and less resourced areas of the whole of Syria.

Medical education and specialist training in former “Regime-controlled” areas have, for years, been grossly inadequate and poorly managed. The mass exodus of experienced doctors and health care professionals had a major impact on medical training and education. In addition to this, the increasing pressures on health care meant that health care professionals had to shift focus towards the provision of basic services, rather than working towards raising training standards and sharing expertise and knowledge, and the impact of this is hard to overstate. Therefore, a key component for the necessary development of health care in Syria must involve significant improvement to the existing health care training programmes for most, if not all, specialities.

It is worth noting that a number of innovative, highly acclaimed and internationally recognised training programmes were being delivered to health care professionals in North West Syria. Highly respected medical and academic entities, like the Royal College of Emergency Medicine and the American University in Beirut, were developing, coordinating and delivering top quality training programmes for doctors in North West Syria. These programmes had to be suspended since the fall of the Assad Regime, as the bodies delivering them did not have the resources and plans that would allow them to deliver those training programmes across the whole of Syria, now that the whole country returned to being a single body. With the appropriate resources, such highly respected academic organisations can deliver outstanding training to health care professionals across different medical and academic specialities, throughout the Country. Importantly, this will encourage already well-trained and experienced health care professionals to return to Syria to be part of a globally recognised and respected training and professional systems.

Finally, it is crucial to acknowledge and recognise the importance of the advocacy activities that health care professionals have been heavily involved in for over a decade, especially in areas outside the control of the former Assad Regime. It is equally crucial to acknowledge that the fall of the Assad Regime meant that these advocacy activities now need to expand into formerly “Regime-controlled” areas, to ensure that health care professionals, and communities they care for, across the whole of Syria, maintain their right for freedom of thought and freedom of expression.

Health care and humanitarian activities in the “new” Syria will be fundamental for the stability and growth of our wounded homeland. The future of Syria will rely substantially on immediate and sustained help from the international community, especially when it comes to delivery of high quality health care, education and academic development of health care professionals, as well as advocacy.

# Gaza's Dire Need for Humanitarian Aid and Medical Mission Volunteers

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Dear Editor,

I am writing in response to Akhter's recent letter, *The Special Role of Medics in the Gaza Crisis* (1). As a Gaza war evacuee, I am often left speechless by such supportive words. As a public health research scholar, it is a duty to historicise these events, especially from my unique perspective. I have been specialising in Gaza Public Health Reform since 2020 (2), when my youngest joined her siblings as a medical student at the Islamic University of Gaza (which no longer stands). The destruction of the healthcare and medical education systems and the deaths of classmates, professors and healthcare professionals (which include family) make this research topic deeply personal (3), thereby causing delays in my ability to document necessary scholarly works.

As a Muslim public health professional, resources like the *Journal of the British Islamic Medical Association (JBIMA)* has enabled me to articulate my loss for words. I applaud Akhter's current call for humanitarian aid organisations to coordinate services to best serve Gaza's dire needs(1). I also praise El-Banna's call for the Muslim medical community in the UK to consider joining medical missions, written in *JBIMA's* April 2019 debut issue (4).

El-Banna opened with an ayah in the Qur'an, justifying his call to action as an Islamic duty of sorts. I commend *JBIMA's* board, editorial staff, and authors for adhering to the scope of this journal since its inception (5). Most strikingly, I am beholden to *JBIMA's* continuous and collective efforts to create a publication platform for our

community's unique needs while attracting and maintaining our unique voice. I wholeheartedly agree with the call for more medical missions to help tell Gaza's story (6). Notable examples include:

- An Australian Muslim doctor shared how Gazans are "not normal" with their faith, resilience, and ability to smile despite the devastation (7).
- An American non-Muslim nurse saying she would go back "in a heartbeat" and that the Gazan medical professionals who chose to stay are "heroes" (8).

Based on a recent mission, a British non-Muslim GP (general practitioner), with a speciality in public health, said Gaza will need 2-3 decades, not years, of recovery work (9). Therefore, medical aid missions to Gaza are crucial right now and for the unforeseeable future. Hence, I earnestly implore you to volunteer today.

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