

Towards a Holistic Islamic Medical Curriculum: Integration of Islamic Knowledge in Medical Training; Experiences from Islamic University in Uganda (IUIU).

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Abstract

Background and Aim of the study: The integration of Islamic principles into medical education is increasingly recognized as vital in shaping ethically grounded and spiritually conscious healthcare professionals. Different institutions have implemented the integration into the medical curriculum with varying levels of adoption. Whereas institutions in Muslim majority countries have attempted to adopt the integrated curriculum, institutions in Muslim minority countries like IUIU still face limitations for example of lectures and students of different back grounds (Muslims and non-Muslims) and anon supportive environment. This paper explores the integration of Islamic knowledge into medical education, with a focus on experiences from the Islamic University in Uganda (IUIU).

Methodology: A Literature review approach was used to identify the practices of the implementation of the integrated curriculum for both Muslim majority and Muslim minority countries focusing at IUIU.

Findings: The study gives the historical background for the integrated curriculum; it also points out the variations in the implementation of the integrated curriculum across universities but more marked between Muslim majority and minority countries like Uganda. The study notices a number of challenges for a holistic integration of the curriculum in Muslim minority countries.

Conclusion and recommendations: The paper recommends that Islamic medical colleges adopt a unified curriculum framework incorporating Islamic perspectives into both preclinical and clinical subjects. It also calls for training of medical lecturers in basic Islamic studies. We further recommend tailoring Quran memorization and halaqa studies to health-related content and fostering collaborations through networks like the Consortium of Islamic Medical Colleges (CIMCO).

Introduction

The integration of Islamic principles into medical education is increasingly recognized as vital in shaping ethically grounded and spiritually conscious healthcare professionals. Within the Islamic worldview, the practice of medicine is not merely a technical or scientific endeavour but a moral and spiritual responsibility.

It is, therefore, essential that future Muslim doctors are nurtured with a mindset that reflects this perspective, recognizing that while the physician administers treatment, ultimate healing comes solely from Allah. Furthermore, medical practice should be viewed as an act of worship (*'ibaada*), carried out with sincerity, compassion, and a sense of accountability to both the Creator and society. This foundational approach provides a holistic framework for medical education, blending scientific excellence with spiritual integrity.

As a result, there has been a growing effort to develop a more holistic medical curriculum. This curriculum integrates the scientific rigor of biomedical education with the spiritual and ethical depth of Islamic teachings. This approach goes beyond the mere inclusion of religious content; it seeks to reframe how future physicians are trained to understand human health and healing. It emphasizes a comprehensive perspective that connects pre-clinical biomedical sciences, clinical training, ethical and professional conduct, leadership and community service within the framework of Islamic values.

A number of sharia compliant hospitals and *ibaada* friendly hospitals have been set up in different parts of the world especially in Muslim majority countries.¹ This creates a demand for health care professionals including doctors, nurses and a cadre of other professionals who are well versed not only with medical knowledge and skills but also with application of Islamic principles and practices in offering medical care. Attempts have been made to address this challenge; in 1995 professor Omar Kasule proposed an Islamic input in medical curriculum (IIMC) that was later renamed as Islamic input in medical program (IIMP) that has been adopted and implemented in some universities in Muslim majority countries notably Malaysia and Indonesia among others.²⁻⁴ This proposed curriculum has two components including Islamization and legal medicine. Islamization deals with putting medicine in an Islamic context in terms of epistemology, values and attitudes by bridging the gap between traditional Islamic sciences and medical sciences.⁴ Legal medicine deals with issues of

application of the law (shariah) from a medical perspective.⁴

However, the observation made is that most of the implementing institutions and Islamic medical colleges that have attempted to implement the same have paid much attention to medical jurisprudence that provides the legal and ethical framework for medical practice based on the teaching of the law which provides a view of medical ethics based on the Quran and sunnahs of the prophet.

The curriculum has been adopted by the International University of Malaysia, (IIUM), University Sains Islam Malaysia (USIM), several universities in Indonesia including but not limited to Universitas Muhammadiyah Makassar, Universitas Muslim Indonesia and other Muslim medical colleges in Muslim majority countries.^{3,5,6} At the Islamic University in Uganda (IUIU) Integration of Islamic knowledge and values has been integrated in the training of students in all academic programs (Courses). All students are required to do mandatory courses including introduction to Islam and introductory Arabic done by all students. In addition, all students are required to memorize at least 10 surahs from the holy Quran before graduation.

In addition, Students offering medical related courses do additional course units depending on the program. These courses include Islam and science, Islam and medicine, Islam and health care as well as Islam and nursing care respectively. Whereas this initiative is intended to give the basic Islamic knowledge to the different professionals, not much has been done in the actual integration of the Islamic knowledge per course unit in an individual program especially for the medical and health related courses.

This paper therefore discusses the current integration of knowledge (Islam and medicine) at the faculty of health sciences of Islamic university in Uganda (IUIU) in relation to the "Islamic input in medical programs (IIMP) being implemented in other Islamic medical colleges", the paper also suggests areas for improvement and incorporation with in the integration of knowledge (IOK) curriculum in order to realize a holistic integration of Islamic knowledge and medical training.

Objectives of the Study.

- To discuss an overview of the IIMC. (IOK)
- To identify the teaching practices of IOK into the Medical curriculum at IUIU.

- To compare the teaching practices of IUIU with other Islamic medical Colleges.
- To identify the gaps and challenges in the IOK in Muslim minority countries.
- To propose and suggest away forward on achieving a holistic integrated curriculum.

Justification:

The Quraan says in chapter 5 verse 32 “.... And whoever saves life- it is as if he had saved life of all mankind.”⁷

This verse emphasizes the sanctity of human life, equating the unjust taking of a life to the destruction of all humanity, and the saving of a life to the preservation of all of mankind. This places the learning and practice of medicine in a special place that requires medics to practice medicine as a way of worship to please Allah and reap rewards from it. And therefore, it is important to note that; Medicine is not just a science; it is also a moral practice. Health workers deal with life, death, suffering, and healing. These are human experiences that demand more than technical knowledge.⁸ For Muslim healthcare providers, their faith can serve as a compass in navigating complex ethical situations, offering guidance where science alone may not suffice.⁹

Furthermore, Islamic founded institutions and medical colleges like the IUIU where faith is central to the mission, have a unique opportunity to develop a curriculum that bridges both the Islamic and the medical knowledge. Integrating Islamic teachings, whether through ethics, jurisprudence (fiqh), prophetic medicine, or spiritual care Islam and medicine as well as Islam and science does not dilute the science. Rather, it enriches it by grounding it in a deeper sense of purpose.

Furthermore, the dichotomy between religious knowledge and general knowledge in the education system is unnecessary. This happens because faith and knowledge cannot in fact be separated. Both are like two interrelated sides, religion without science is fragile and science without religion is paralyzed.¹⁰

Finally, with increasing emphasis globally on patient centered care and cultural competence, medical education that is sensitive to religious and spiritual needs is a required necessity. A curriculum that trains students to treat not just the disease but the person in their full context is one that prepares them to be compassionate, thoughtful, and morally responsive practitioners.

Thus, there's an urgent need for the Islamic medical colleges to review, upgrade, update and implement a medical curriculum that touches on all aspects of medicine as a discipline not only covering moral, ethical, and professionalism of health workers; the curriculum should also put emphasis on discussing the Islamic perspectives and contexts of biomedical sciences in pre clinical years including anatomy, physiology, biochemistry. Pharmacology. pathology and microbiology. The revised curriculum should also be in position to give the Islamic perspectives and contexts clinical disciplines including internal medicine, surgery, paediatrics as well as obstetrics and gynaecology.

It should be noted that the integration of Islam and science is interpreted as an effort to combine science and Islamic teachings so that they are equal, have the same portion, based on the universality value of Islamic teachings which originate from qauliyah verses, namely the Qur'an and Hadith, and kauniyah verses, namely phenomena that exist in the universe.¹⁰

Methodology:

A Literature review approach was used to identify the practices of the implementation of the integrated curriculum for both Muslim majority and Muslim minority countries. Course contents and course outlines for integrated courses taught at Islamic university in Uganda (Islam and medicine as well as Islam and science were) were also reviewed. An analysis and comparison with Muslim majority countries was made, challenges identified and recommendations for a holistic IOK curriculum were suggested.

Historical background:

Islam has always encouraged the pursuit of knowledge which is compulsory to every Muslim man and woman, and medicine was no exception, in fact medical knowledge is ranked as second best and amongst the most important knowledge after the knowledge of Deen.^{11,12}

For these scholars, treating a patient was not just a scientific process; it was also a spiritual and moral duty. They approached medicine as an act of worship, a way to serve humanity and please God. The classical Islamic view sees health as a trust (amanah) from Allah and healing as a means to preserve the dignity and well-being of His creation. Illness, likewise, is viewed not only as a

biological malfunction but also as a test and opportunity for spiritual growth.

Currently, medicine is being taught mainly through Western biomedical models. While effective in many ways, these models rarely acknowledge the spiritual and ethical dimensions of care, let alone the deeply rooted values of Islamic teachings, principles and practices. This has created a disconnect, especially for Muslim healthcare professionals trying to reconcile their religious values with professional expectations.

Overview of the Islamic Input in Medical Curriculum (IIMC)

According to Dr. Omar Kasule, in a paper presented on Islamic Medical Education in 2007 in Indonesia, he states that (IIMC) has two main visions including;

- I. Islamization of medicine: which aims at reforming the underlying paradigms, concepts and beliefs associated with medicine to conform to the **tenets of Aqidah al tauhid**. For example, believing that the concept of medical treatment aims at improving the quality of life until the predetermined time of death and that medicine cannot abolish or postpone death and believing that cure is from Allah.
- II. Medical jurisprudence (Fiqh tibb): this section deals with application of Islamic legal obligations in cases of illness.^{3,4}

The curriculum is divided in six sub themes or contents;^{3,4}

1. **Fundamentals (assasiyaat)** – Covers the basics of Islamic creed, Islamic laws and the Islamic concept of knowledge as the foundations for acquisition of further knowledge.
2. **History** – Which covers the historical background on creation of the universe, creation of human, world history and Muslim history.
3. **Medical sciences**: This section demonstrates the miracles of the creation of human body by discussing aspects of Human Anatomy, Physiology biochemistry and other biomedical sciences.
4. **Clinical sciences**: This section also covers medical law and medical ethics; jurisprudence of illness covering its impact on religion and social obligations, ethical legal issues of modern medical technology like artificial fertilization and reproduction, transplantation, genetic engineering among others.
5. **The community**: This section discusses the Islamic and medical aspects of the social factors that impact

our health, social institutions like family, mosques, Shurah, economic systems among other.

6. **Leadership**: This section covers the essentials of leadership and management that Muslim Medical students will need as leaders of the health care system.

Overview of the Islamic input in medical curriculum at the Islamic university in Uganda (IUIU).

Uganda at a Glance:

It is a land locked country found in East Africa. It has an estimated population of 45.9 million as of 2024 and an annual growth rate of 2.9%.¹³

It is predominantly a non-Muslim country with approximately 13.2% of the population being Muslim (UBOS 2024), Roman Catholics being 36.2% and Anglicans making up 29.0% and the rest adhering to other faiths.^{14,15}

There are 52 universities in Uganda as of 2025, including 39 private universities and 13 public universities. Only 11 universities teach medicine including both private and public universities.¹⁶

About 4 universities are Muslim founded including Islamic University in Uganda (IUIU), Islamic call University College (ICUC), Equator University (Equistat) and Kampala University (KU). Only two Universities (IUIU) and Equator University teach medicine.

Islamic University in Uganda (IUIU) at a Glance;

The University was established in 1988 by the organization of Islamic Cooperation (OIC) under the bilateral agreement between OIC and the government of Uganda and was formerly established by the act of parliament “The Islamic University in Uganda” (cap 131, laws of Uganda)¹⁷.

The University has four campuses, the main campus in Mbale eastern Uganda, Kampala Campus in Kibuli Kampala, Females’ Campus in Kabojja Wakiso and Arua Campus in west Nile region of Uganda. It has 8 faculties and 120 accredited programs (courses).¹⁸

Faculty of Health Sciences.

The faculty is hosted at the Kampala campus of the university but the academic programs are spread are taught across all the campuses. Several courses are taught at this faculty including;¹⁹

- Masters of Public Health;
- Bachelors of Medicine and Surgery;
- Bachelors of Biomedical Sciences;
- Bachelors of Public Health;
- Diploma in General Nursing;
- Diploma in Midwifery;
- Certificate in General Nursing;
- Certificate in Midwifery

In all the above courses, an introductory course of introduction to Islam, and introduction to Arabic language are taught. In addition, Islam and science, Islam and Medicine as well as Islam and Nursing are taught to the respective courses.

Summary of Integration of Islamic Knowledge at the Islamic University in Uganda.

The Subjects: At IUIU, all academic programs teach a mandatory course unit called “Introduction to Islam”. At the faculty of health sciences, medical students take the Islam and Medicine as well as Islam and science course units. These two course units covers the following aspects:

Islam and Medicine; (taught to the students of Health Service management, bachelors of medicine and surgery, bachelors of public health and bachelors of environmental health sciences) covers the following aspects;

Historical and contemporary views on medicine, Nutrition and Islam (the forbidden foods, intoxicants etc.), Islam and public health, disease prevention in Islam, Islam, birth and reproductive health (embryology, prenatal and post-natal, child spacing and contraception in Islam). Handling of the dead; Islam on sexually transmitted diseases; medical ethics and contemporary issues.

Islam and Science: On the other hand, this covers a general perspective on the Scientific miracles of the Quran covering the creation of the universe, the light of the moon and sun, geology and geography of the earth, oceans and seas, rain formation, lightening, the

mountains fertilization and reproduction, and embryology, the senses of human beings Quran and breastfeeding; the atmosphere.

Mode of Delivery: These two course units are taught as a single course unit in one semester throughout the period of the respective academic programs. In addition, at IUIU, all students are expected to memorize at least ten surahs from any part of the Quran of their choice before graduation and lastly students from all academic programs do a mandatory introduction to Islamic studies and introduction to Arabic language studies.

The learning environment: Recognizing the fact that holistic integration of Islamic knowledge into a curriculum is not complete unless there is a conducive environment: IUIU ensures that we implement a policy of gender segregation at campus; in lecture rooms and throughout all forms of gatherings.

IUIU also ensures that a suitable dress code that is part of our culture is observed by both Muslims and Non-Muslims students and staff.

And last but not least, IUIU policy ensures that: anti-Islamic, anti-social and ant Islamic behaviours like smoking, unnecessary noise and shouting, alcohol consumption among others are prohibited on campus premises. All these measures are aimed at ensuring that students get a conducive Islamic learning environment.

Discussions: Comparisons with the Muslim Majority Countries.

First, it is very important to appreciate and acknowledge all the institutions and medical colleges that have adapted and tried to implement the integration of Islamic knowledge, in medical training. It can be observed however, that different colleges have picked on a number of components of the proposed curriculum of IIMC;

From the above we can observe that, IUIU takes on Islam and science, as well as Islam and Medicine which are taught once in respective semesters; this leaves out the other components of the Islamic perspectives of history of medicine, leadership, clinical components and community sciences as well medical and biomedical sciences.

While sharing experiences at the **international Islamic University of Malaysia (IIUM)**, Dr. Osman A, states that integration of Islamic knowledge is done every week

throughout the 5 years of training of medical students.³ He adds that the lecturers who teach Medicine are the very one who teach the integration of Islamic knowledge. This is slightly different from the Muslim minority countries like Uganda whereby different instructors may be required to come from the faculties of Islamic studies to teach such courses without having a medical background as is the case at IUIU.³

At the **Universiti Sains Islam Malaysia (USIM)**; in addition to the 6 years of medical training, a 7th year is added for Tamhid program as a foundation year which allows students to acquire Islamic knowledge as well as for effective inculcation of Islamic values. In addition, Halaq studies are compulsory and they expose students to techniques of analyzing, classical texts and applying it to their respective areas of specialization.²⁰ In summary they also include memorization of specific Quran verses and surahs throughout the year as well as integration in basic medical courses like anatomy and physiology. Integration continues in clinical years with emphasis on Islamic ethics and legal aspects of medical practice as well as integrating Islamic values in all the clinical practice process (history taking, physical examination and treatment etc.)²⁰

In Indonesia, There are more than 4,600 tertiary institutions in Indonesia as of the year 2024. These institutions are generally divided into two categories namely general universities and religious universities.²¹ As of 2024, there are 59 state universities and more than 850 private universities with religious affiliations. These religious universities run on the paradigm of integrating general science with religious science.²¹⁻²³ The integration of knowledge in these universities has resulted in the cultivation of character in students, provision of religious knowledge among students as well as equipping scientific knowledge and skills among students.⁶ These make the foundations to shape character and attitudes of students as they become professionals.⁶

Observations and Challenges:

Islamic medical colleges have tried to implement the integration of Islamic knowledge in medical training. There are variations in the adaptation of the proposed IIMC as well as a method of delivering the content. There is no uniform curriculum for integration of knowledges across all Muslim medical colleges.

Different universities deliver different content at different levels. There is no uniform delivery of information across the universities.

Both students and lecturers in Muslim minority countries are from a mixed background of Muslims and non-Muslims and this also makes it difficult for the integration of the curriculum to be realised.

It is also important that to note that even the few Muslim-medical lecturers may not have the basic Islamic knowledge to integrate the curriculum.

Different universities adopting different aspects of the curriculum makes it difficult to produce identical health professionals that can propagate the integration of knowledge beyond the generation.

The teachings (curriculum) are mainly based on existing quotations from the Quran and Hadiths of the prophet, less scientific research and publications had been made to enrich the traditional Islamic medicine with modern scientific discoveries.

RECOMMENDATIONS:

Islamic medical colleges need to come together like never before through the consortium of medical colleges (CIMCO) of FIMA. There is need to review the integration of knowledge (IOK) curriculum to include the Islamic perspective in all the biomedical and medical courses including but not limited to the Islamic context and perspective of anatomy, physiology, biochemistry, pharmacology, micro-biology and pathology.

In the clinical years, the curriculum should handle in detail the Islamic context of internal medicine, paediatrics, surgery, and obstetrics and gynaecology.

This is in addition to the clinical and community aspects incorporating ethical legal and leadership practices.

Quran memorization at IUIU, should be tailored to verses and chapters relevant to individual disciplines and academic programs.

Medical lectures to take a part time diploma or certificates in Islamic studies to enable them integrate medical and Islamic perspectives in their teaching. We suggest that all Muslim medical colleges should conform to one curriculum for integration of Islam and medicine and implement it as such.

The Table below presents a proposed inclusion into the medical training curriculum to realize a holistic integration of Islam with in medical training.

A Conceptual Framework for the Proposed Improvement of the Integration of Islamic Knowledge into the Teaching of Medicine Curriculum. PRE-CLINICAL YEARS / BIOMEDICAL SCIENCES

S/No	Phase of Study	Medical Disciplines	Proposed Integration
1	Pre-Clinical Years / Biomedical Sciences	Anatomy	• Historical contribution of Muslim scholars to Anatomy • The human body as a trust • Respect for the deceased • Necessity of medical knowledge • Permissibility of dissection • Anatomical description in Quran & Hadith (heart, blood, brain, embryology, musculoskeletal system, etc.)
2	Pre-Clinical Years / Biomedical Sciences	Physiology	• Historical contributions to Physiology • Physiology in the light of Quran • Embryonic development stages • Link between heart, brain & spiritual health • Blood circulation, endocrine system, fasting, exercise, honey • The Divine breath
3	Pre-Clinical Years / Biomedical Sciences	Pharmacology & Biochemistry	• Contributions and advances in Islamic pharmacology • Ethical considerations (halal & haram) • Prophetic medicine • Modern scientific research on prophetic medicine
4	Pre-Clinical Years / Biomedical Sciences	Microbiology	• Early germ theory (Ibn Sina) • Contagious diseases (Ibn Khatima) • Distinguishing diseases (Al-Razi: measles & smallpox) • Halal vs Haram in food microbiology • Microbial bioprocesses • Bioethics in biotechnology
5	Pre-Clinical Years / Biomedical Sciences	Pathology	• Islamic perspectives of pathology • Ownership of human body • Autopsy and post-mortem in Islam

CLINICAL YEARS / MEDICAL SCIENCES

S/No	Phase of Study	Medical Disciplines	Proposed Integration
6	Clinical Years / Medical Sciences	Internal Medicine	• Contributions of Muslim scholars to medicine & surgery • Islamic approach to history taking & physical exam • Islamic approach to treatment & surgical procedures • Quran & Hadith references (medicine, surgery, pediatrics, gynecology) • Integration of prophetic medicine
7	Clinical Years / Medical Sciences	General Surgery	Same integration points as Internal Medicine
8	Clinical Years / Medical Sciences	Pediatrics	Same integration points as Internal Medicine
9	Clinical Years / Medical Sciences	Obstetrics & Gynecology	Same integration points as Internal Medicine
10	Clinical Placements, Community Placements & Leadership	Leadership & Community Management	• Emphasis on Islamic ethics & legal aspects of practice • Basic leadership skills: administration, communication, accountability

The above table /conceptual framework describes a full detailed proposed curriculum for improvement of the integration of Islamic knowledge into the medical training. This proposed curriculum explains what should be taught at both pre-clinical and clinical phases of training.

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