

“Examining the Incorporation of Islamic Values in Concept Mapping and Curriculum Design for Medical Education: A Holistic Perspective”

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ABSTRACT

Medical education is an ever-evolving realm, continuously striving for innovative methods to improve learning outcomes and nurture competent healthcare practitioners. Concept mapping has emerged as a valuable tool in this drive, aiding in the organization and synthesis of intricate information. This review delves into the infusion of Islamic teachings into concept map teaching and curriculum development within medical education. By drawing on Islamic principles related to knowledge acquisition, ethics, and comprehensive healthcare, this examination offers strategies for integrating Islamic perspectives into concept map-based teaching approaches. Through harmonizing educational practices with Islamic ethos, medical educators can cultivate an environment that is culturally attuned and ethically rooted, fostering the development of healthcare professionals who embody compassion and integrity in serving their communities.

Keywords

Islamic teachings; concept mapping; curriculum development; medical education; ethics; holistic healthcare

INTRODUCTION

Medical education is in a continual state of adaptation to keep pace with the ever-evolving landscape of healthcare. To foster competent and empathetic healthcare professionals, the integration of innovative teaching methodologies is paramount.¹ Concept mapping, a method of

visually representing knowledge structures, has garnered attention in medical education for its ability to organize complex information and enhance students' critical thinking abilities.²⁻¹³ However, as we strive for excellence in medical education, it's crucial to acknowledge the cultural and ethical aspects that influence healthcare practices. This review investigates how Islamic teachings can be incorporated into concept map teaching and curriculum development, with the goal of establishing a learning environment that reflects Islamic principles of knowledge acquisition, ethics, and holistic healthcare.

Islamic Perspectives on Knowledge Acquisition:

The idea of tawhid, or “the unity of God,” which emphasises the unity and interconnectivity of knowledge, is fundamental to Islamic teaching.

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Islamic scholars have always acknowledged that knowledge is a holistic concept that includes both acquired (empirical) and revealed (Qur'anic) knowledge. This fundamental idea is consistent with the purpose of concept maps, which is to illustrate the interconnections between related concepts. Islamic epistemology places a strong emphasis on obtaining knowledge (*tahqiq*), critical thinking (*ta'qil*), and reflection (*tafakkur*), all of which are goals that align with the teaching of concept maps.¹⁴ Islamic teachings highlight the importance of seeking knowledge as an essential obligation for all believers. The Quran encourages Muslims to pursue knowledge and contemplate the signs of creation. Additionally, Prophetic traditions emphasize the significance of critical inquiry and continuous learning. Incorporating Islamic perspectives on knowledge acquisition into medical education entails nurturing curiosity, humility in intellect, and a dedication to evidence-based practice. By aligning concept map teaching with Islamic epistemology, educators can imbue students with a sense of purpose and ethical duty in their quest for medical knowledge.

Islamic Perspectives on Ethics in Healthcare:

Islamic teachings provide valuable insights into ethical principles relevant to healthcare, emphasizing the concept of empathy, which encompasses virtues like compassion, justice, integrity, and humility. These virtues are crucial in fostering strong doctor-patient relationships and delivering comprehensive care. Islamic bioethics underscores the sanctity of life, human dignity, and the principles of beneficence (doing good) and non-maleficence (avoiding harm).

Concept mapping serves as a useful tool for examining ethical dilemmas in medical practice through an Islamic lens. By integrating case studies grounded in Islamic ethics into concept map exercises, educators can prompt students to critically analyze and address complex ethical issues. This method not only deepens students' comprehension of ethical principles but also nurtures empathy and cultural awareness in patient care.

Furthermore, Islamic teachings highlight the significance of community and social responsibility. Medical education guided by Islamic values should stress the role of healthcare professionals as community stewards. Concept maps can illustrate how individual health is interconnected with societal well-being,

prompting students to consider the broader implications of their actions on communities and populations.

Example of a Case Scenario: Decision Making in End-of-Life Care

Patient Context : Ahmed, a 70-year-old Muslim gentleman, is admitted to the hospital due to advanced cancer. His health is rapidly declining, and he's enduring severe pain. Ahmed's family deeply adheres to Islamic principles.

Ethical Challenge: The medical team faces a dilemma: whether to continue aggressive treatment, offering slim chances of improvement but causing significant discomfort, or to shift Ahmed to palliative care for pain relief and comfort during his final days.

Concept Map: Ethical Decisions in End-of-Life Care through an Islamic Lens

1. Core Ethical Values:

- **Beneficence:**
 - Prioritizing Ahmed's well-being and pain relief.
- **Autonomy:**
 - Respecting Ahmed's right to decide on his medical care, in accordance with Islamic beliefs.

2. Islamic Perspective:

- **Quranic Insights:**
 - Emphasizing patience and endurance during trials.
- **Hadith Teachings:**
 - Encouraging compassion towards the sick.

3. Case Analysis:

- **Treatment Options:**
 - Weighing the benefits and drawbacks of continuing aggressive treatment versus transitioning to palliative care.
 - Considering the impact on Ahmed's comfort and quality of life.

4. Cultural Considerations:

- **Islamic Beliefs:**
 - Acknowledging the acceptance of fate and the importance of dignity and comfort in end-of-life care.

- **Family Dynamics:**

- Recognizing the family's central role in decision-making within Islamic culture.

5. Decision Process:

- **Collaborative Decision-Making:**

- Involving Ahmed and his family in discussions about treatment options.
- Balancing medical expertise with respect for Ahmed's autonomy and religious beliefs.

6. Implementation:

- **Palliative Care Strategy:**

- Transitioning Ahmed to palliative care to manage pain and provide holistic support.
- Ensuring Ahmed's religious and cultural preferences are respected during his care.

7. Reflection and Assessment:

- **Ethical Review:**

- Evaluating the decision's alignment with Islamic principles and its impact on Ahmed's well-being.
- Reflecting on the process to enhance future care for similar patients.

By constructing this concept map, healthcare providers can navigate the complex ethical considerations involved in end-of-life care decisions for any patients integrating medical expertise with cultural and religious sensitivity.

Curriculum Design Informed by Islamic Values:

Incorporating Islamic values into medical education necessitates more than just individual teaching methods; it demands a holistic approach to curriculum development. A curriculum rooted in Islamic principles should encompass not only biomedical sciences but also include subjects like Islamic bioethics, medical jurisprudence (fiqh al-tibb), and spirituality in healthcare.¹⁵

Concept mapping can offer a cohesive structure for integrating these varied components into the curriculum. By visually representing the connections between different areas of study, educators can underscore how medical knowledge intersects with ethical principles and spiritual beliefs. This comprehensive curriculum design ensures that students not only acquire clinical skills but also develop a profound understanding of

their ethical obligations as healthcare providers.

Framework for Integrating Medical Knowledge, Ethical Principles, and Spiritual Beliefs from an Islamic Perspective in Medical Education through Concept Mapping:

1. Needs Assessment and Stakeholder Involvement:

- Evaluate stakeholders' needs and preferences, including students, faculty, religious scholars, and healthcare professionals, regarding the integration of Islamic values into medical education.
- Engage stakeholders to ensure the curriculum reflects diverse perspectives and addresses relevant issues effectively.

2. Core Curriculum Components:

- Islamic Bioethics Concept Mapping:** Develop concept mapping exercises exploring Islamic principles of bioethics, like respect for life and justice, using case studies grounded in Islamic teachings. - Encourage critical analysis and decision-making within an Islamic ethical framework.
- Medical Jurisprudence (Fiqh al-Tibb) Concept Mapping:** Design concept maps illustrating the application of Islamic legal principles to medical practice, including consent and professional conduct. - Prompt students to map out fiqh rulings and their implications for ethical dilemmas in healthcare.
- Spirituality in Healthcare Concept Mapping:** Create concept map activities exploring the role of spirituality in patient care from an Islamic perspective, including concepts like tawakkul and compassion. - Emphasize holistic patient care by mapping connections between spiritual beliefs and healthcare practices.

3. Pedagogical Strategies:

- Use concept mapping as an active learning tool to enhance students' understanding of complex ethical and spiritual concepts within an Islamic context.
- Provide students with guidance, examples, and feedback to support their concept map creation process.

4. Integration and Collaboration:

- Foster collaboration among medical educators, Islamic scholars, and ethicists to develop integrated

concept mapping activities that bridge medical knowledge with Islamic ethics and spirituality.

- Encourage interdisciplinary discussions and research projects exploring the intersection of medical practice and Islamic values.

5. Assessment and Evaluation:

- Assess students' comprehension of Islamic bioethics, medical jurisprudence, and spirituality in healthcare through concept mapping assignments.
- Evaluate students' ability to apply Islamic principles to ethical dilemmas and spiritual care scenarios using concept maps.

6. Continuous Improvement:

- Gather feedback from students and faculty to continually refine and update concept mapping activities, ensuring alignment with curriculum goals and advancements in Islamic bioethics and healthcare practices.
- Regularly review and enhance concept mapping exercises to meet the evolving needs of medical education.

7. Faculty Development and Support:

- Offer faculty development programs and workshops on integrating Islamic perspectives into concept mapping activities in medical education.
- Provide resources and training opportunities to assist faculty in designing, implementing, and assessing concept mapping exercises from an Islamic viewpoint.

8. Community Engagement and Outreach:

- Collaborate with local religious communities and healthcare organizations to raise awareness of integrating Islamic values into medical education through concept mapping.
- Foster partnerships to facilitate dialogue and knowledge exchange on spirituality and ethics in healthcare from an Islamic perspective.

This framework outlines a structured approach to curriculum development for concept mapping in medical education, focusing on integrating Islamic values into medical knowledge, ethical principles, and spiritual beliefs effectively.

Islamic Scholars' Role in Curriculum Development:

Incorporating Islamic values into the design of medical education curricula highlights the crucial role of Islamic scholars. These scholars bring profound expertise in interpreting Islamic teachings, jurisprudence, and ethical principles relevant to healthcare.

Collaborating with Islamic scholars ensures that the integration of Islamic perspectives is genuine, nuanced, and firmly grounded in theological and ethical fundamentals. Their insights into Islamic bioethics, medical jurisprudence, and the application of Islamic principles in contemporary healthcare contexts are invaluable.

Moreover, Islamic scholars can contribute to faculty development by offering workshops, lectures, and seminars on topics such as Islamic ethics in healthcare and spirituality in medicine. Their involvement enhances faculty members' understanding of Islamic values and their effective integration into teaching practices.

Through active engagement with Islamic scholars in curriculum development, medical schools demonstrate their dedication to academic excellence and cultural competence. This collaboration ensures that the curriculum reflects a comprehensive understanding of healthcare, encompassing scientific knowledge and ethical principles rooted in Islamic tradition. Ultimately, this approach fosters an inclusive learning environment that respects diverse religious and cultural perspectives, while preparing future healthcare professionals to address ethical challenges with sensitivity and integrity.

Crucial prophetic advice for teachers to be incorporated into concept mapping in medical education:

1. Compassion and Kindness:

Teachers' role:

The significance of kindness and compassion in relationships with others was highlighted by the Prophet Muhammad (peace be upon him). Teachers may model this for their students by being patient, understanding, and empathetic towards them, which will foster a secure and supportive learning atmosphere.

Hadith:

A quote from the Hadith states, "*Allah is kind and loves kindness in all matters.*" (Sahih Bukhari)¹⁶

2. Effective Communication and Individualized Instruction:

Teacher's role:

The Prophet Muhammad (peace be upon him) was renowned for his skill at efficient communication and eloquence. In order to improve comprehension and engagement, teachers should make an effort to speak succinctly and clearly while utilising language and situations that connect with their students.

According to each person's unique requirements and abilities, the Prophet Muhammad (peace be upon him) customised his teachings. Similar strategies can be used by teachers, who can tailor education and support to each student's specific needs by identifying their strengths, limitations, and preferred methods of learning.

Hadith:

"Speak to people according to their understanding." (Sahih al-Bukhari)¹⁷

3. Lead by example:

Teacher's role:

In addition to teaching with his words, the Prophet Muhammad (peace be upon him) also taught through deeds. Instructors have the power to inspire their students to replicate positive attributes by setting an example of the values, ethics, and behaviours they want to see in them.

Hadith:

"The one who guides to something good has a reward similar to that of its doer." (Sahih Muslim)¹⁸

4. Motivation and encouragement:

Teacher's role:

The Prophet Muhammad (peace be upon him) inspired and uplifted his companions, giving them strength and zeal. Instructors may inspire students by recognising their work, acknowledging their successes, and creating a welcoming environment that promotes learning and development.

Quran:

"Help one another in righteousness and piety." (Al - Quran - Surah Al-Ma'idah)¹⁹

5. Critical Thinking and Inquiry:

Teacher's role:

By encouraging his companions to ponder, ask questions,

and pursue knowledge, the Prophet Muhammad (peace be upon him) fostered critical thinking and inquiry in them. To help students develop independent thinking and intellectual curiosity, teachers should encourage them to ask questions, evaluate different perspectives, and analyse information critically.

Hadith:

The Prophet Muhammad (peace be upon him) said: "Seeking knowledge is obligatory upon every Muslim." (Sunan Ibn Majah)²⁰

6. Patience and Perseverance:

Teacher's role:

In the face of difficulties and misfortune, the Prophet Muhammad (peace be upon him) showed patience and perseverance. Educators can effectively convey this crucial lesson by emphasising to students the importance of tenacity, resilience, and determination in conquering challenges and attaining targets.

Hadith:

The Prophet Muhammad (peace be upon him) said: "No fatigue, nor disease, nor sorrow, nor sadness, nor hurt, nor distress befalls a Muslim, even if it were the prick he receives from a thorn, but that Allah expiates some of his sins for that." (Sahih Bukhari)²¹

He also said, *"The strong believer is better and more beloved to Allah than the weak believer, while there is good in both."* (Sahih Muslim)²²

7. Justice and Fairness:

Teacher's role:

Fairness and justice were values that the Prophet Muhammad (peace be upon him) advocated in all of his interactions. By guaranteeing fairness in evaluation, treatment, and opportunity for every student, teachers may foster these principles in the classroom and foster a feeling of equity and inclusivity.

Quran:

"Be just, even if it is against yourselves." (Al-Quran – Surah An – Nisa)²³

By integrating this prophetic guidance into concept maps in medical education, teachers can establish a learning environment that fosters students' character, ethics, and spiritual growth in addition to imparting knowledge.

Further instructional strategies derived from Islamic

teachings to be incorporated into concept mapping in medical education:

1. *The Prophet Muhammad (peace be upon him) would frequently repeat his teachings three times to ensure comprehension among his audience.*

The Prophet (peace be upon him) said, "By Allah, he does not believe! By Allah, he does not believe! By Allah, he does not believe!" It was said, "Who is that, O Allah's Messenger?" He said, "That person whose neighbor does not feel safe from his evil." (Sahih al-Bukhari)²⁴

Comments: Through the implementation of the three-times teaching principle in concept map instruction, teachers can improve student knowledge, retention, and comprehension, which will ultimately lead to successful learning outcomes.

2. *The Prophet (peace be upon him) said, "Make things easy for the people, and do not make it difficult for them, and make them calm (with glad tidings) and do not repulse (them)." (Sahih al-Bukhari)²⁵*

Comments: Applying prophetic teachings to concept map teaching offers several benefits. It simplifies complex concepts, fosters a supportive learning environment, encourages student engagement, provides clear guidance, ensures accessibility for all learners, and promotes a calm and positive atmosphere conducive to effective learning.

3. *Juwairiyah bint Al-Harith (May Allah be pleased with her), the Mother of the Believers, narrates an incident where the Prophet Muhammad (peace be upon him) found her still in the same position after he had left her in the morning. The Prophet then informed her that he had recited four words three times after he had left her, and if these words were to be weighed against all she had recited since morning, they would be heavier. These words are: "Subhan-Allahi wa bihamdihi, adada khalqihi, wa rida nafsih, wa zinatah arshih, wa midada kalimatih" which means "Allah is free from imperfection and I begin with His praise, as many times as the number of His creatures, in accordance with His Good Pleasure, equal to the weight of His Throne and equal to the ink that may be used in recording the words (for His Praise)." (Sahih Muslim)²⁶*

Comments: He uttered four phrases. This was the Prophet Mohamed's (peace be upon him) well-known style of instruction. Every time he lists something, he always states the amount first. Perhaps one wouldn't believe that anything was forgotten if only one statement from it was missed. But he would be aware that a statement was missed if he said that there were four statements and then forgot one. This is also one of the advantages of stating the total amount. Considering that this promotes recall, In the classroom, this can even be helpful.

Thus, when the instructor opens the session by saying, "Today's topics consist of four elements," Alternatively, he could say, there are three things we're talking about today. It will help with retention. This is a prophetic teaching approach that helps with memory retention, as reported by the Prophet Mohamed (peace be upon him) in numerous hadiths.

4. *While we were in the mosque, Allah's Messenger (peace be upon him) came out to us and said, "Shall I not tell you the greatest Surah in the Qur'an before you leave the mosque?" (Sahih al-Bukhari)²⁷*

"There are two statements that are light for the tongue to remember, heavy in the Scales and are dear to the Merciful: 'Subhan-Allahi wa bihamdihi, Subhan-Allahil-Azim [Glory is to Allah and praise is to Him, (and) Allah, the Greatest, is free from imperfection]'." (Sahih al-Bukhari)²⁸

Comments: The teaching style that is highly advantageous is one that is commonly seen in the hadith of Prophet Mohamed (peace be upon him). Teaching suspense building is the term for this approach. Information is withheld until the suspense is established. Before the information is delivered, the soul is ready for it.

The prophet's (peace be upon him) message has an amazing amount of anticipation. His explanation comes after he has built up the suspense. In the hadith of the Prophet Mohamed (peace be upon him), this building of suspense is not uncommon. As a result, the following can be seen in numerous hadiths: Shall I not inform you? Shall I not tell you? Shall I not advise you? After that, he clarifies. In the hadith, this approach is commonly used.

Crucial guidance from Islamic teachings for students to improve their learning and memory abilities:

1. *Imam Ash-Shafiee rahimahullah said: I complained to Imam Wakee rahimahullah about my decreasing (weak) memory and he advised me to abstain from sins, and he informed me that knowledge is light and the light of Allah is not receptive (given) to the sinner. (Al-Jawāb al-Kāfi’)*²⁹

Comments: Imam Ash-Shafi’i’s counsel places a strong emphasis on the role that righteousness plays in learning because sin obscures the light of knowledge. This principle emphasises the importance of moral behaviour and piety as necessary components for effective learning and enlightenment in medical education and concept map teaching.

2. *Ibn al-Jawzee rahimahullah said: Know the first deception of Iblees against mankind is turning them away from knowledge, because knowledge is light. So, if he extinguishes their lamps, he can cause them to grope in the dark as he wishes. (Talbees Iblees)*³⁰

Comments: Ibn al-Jawzi’s understanding, which acknowledges knowledge as enlightenment, emphasises the devil’s strategy of obstructing access to knowledge. This emphasises the quest for knowledge as a way of spiritual illumination and guidance, underscoring the crucial role that knowledge acquisition plays in fending off ignorance and deception in concept map teaching and medical education.

3. *Imam Ibn al-Qayyim said: Knowledge has six levels:*

1. *Good questions*
2. *Paying attention and listening carefully*
3. *Good understanding*
4. *Memorization*
5. *Teaching*
6. *And this is its fruit – acting upon it and maintaining its boundaries (Miftaah Daar-us-Sa’aadah)*³¹

Comments: The paradigm developed by Imam Ibn al-Qayyim emphasises how knowledge is acquired progressively, from inquiry to application. This emphasises the value of encouraging inquiry, active listening, comprehension, memorization, teaching, and practical application in concept map instruction and

medical education. This promotes a holistic approach to learning that integrates understanding with action.

4. *Ibn Al-Jawzī rahimahullah said: How to master what you memorize: The secret behind mastering what you memorize is lots of repetition, and people are different in that. With some (people) the information sticks with just a little amount of repetition and other need to repeat it many times. Therefore, a man should repeat his lessons in order to have it firmly established in his memory.*

The Prophet (peace be upon him) said: “Take good care of the Qur’ān, for it escapes the chests of men quicker than a precious camel from its leash.” I say, this hadīth is agreed upon, Bukhārē #5033 and Muslim #791 and 231 from Abō Hurayrah.”

(Al-Huzza ‘Alaa Hifz Al-‘Ilm Wa Dhikru Kibaar Al-Huffaaz)³²

Comments: According to Ibn Al-Jawzi, regular repetition is necessary for successful memorization. Its significance is strengthened by the Prophet Muhammad’s (peace be upon him) command to preserve the Qur’an. In medical education and concept map instruction, this highlights the necessity of consistent practice and revision to solidify knowledge in memory.

5. *Wahb Ibn Munabbih rahimahullah said: The believer intermingles to learn, adopts silence to protect (himself), speaks to teach and adopts isolation for success. (Siyar A’laam an-Nubalaa)*³³

Comments: The balanced approach of a believer to knowledge-seeking is emphasised by Wahb Ibn Munabbih. This includes learning, maintaining silence for introspection, sharing knowledge, and seeking isolation for personal development. This principle emphasises the value of teaching, self-reflection, contemplation, and active learning for the overall development of education in medical education and concept map teaching.

Improving Meaningful Learning and Spiritual Development:

Incorporating Islamic principles into concept mapping can nurture students’ spiritual growth in medical education. Islamic values like humility, gratitude, and empathy, crucial for healthcare, are emphasized. Through concept mapping exercises integrating these principles, students develop a deeper sense of spirituality

and moral duty in patient care. They see their profession as a way to fulfill religious and ethical responsibilities. This integration fosters a holistic learning approach, empowering students to become compassionate and ethical healthcare providers dedicated to serving humanity with excellence and integrity.

CHALLENGES AND CONSIDERATIONS:

Incorporating Islamic values into medical education brings both benefits and challenges. One challenge is ensuring inclusivity and respecting diverse religious and cultural perspectives among students. It's essential to create an environment promoting open dialogue and mutual respect, allowing all students to engage meaningfully with Islamic teachings.

Practical hurdles may arise in implementing curriculum changes and gaining faculty support for integrating Islamic perspectives. Educators and administrators need to collaborate on developing faculty training programs covering Islamic bioethics, cultural competency, and effective teaching methods for sensitive topics.

CONCLUSION:

In summary, integrating Islamic values into concept map teaching and curriculum design has significant

potential to enhance medical education and cultivate compassionate, ethically-minded healthcare professionals. By harmonizing teaching methods with Islamic principles of knowledge and ethics, educators can foster a learning atmosphere that nurtures intellectual development alongside moral integrity. Nevertheless, effective execution demands meticulous planning, cooperation, and a dedication to inclusivity and cultural awareness. Through conscientious integration of Islamic viewpoints, medical education can authentically embody the ideals of comprehensive healthcare and societal welfare.

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