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Makkah Colleges Novel Medical Curriculum Framework: Integrating Learner-Centeredness, Community-Orientation, and Problem-Based Learning to Address National and Local Health Needs

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Abstract

Challenge:

Designing a medical curriculum for a new college in Makkah, Saudi Arabia, required a framework that not only supported the founders' vision but also addressed the healthcare needs of both the local community and the millions of pilgrims who visit annually. The challenge was to create a curriculum that combined academic rigor with social accountability, while aligning with international standards such as WFME and national accreditation requirements from NCAAA.

Methodology:

Makkah Colleges adopted a bipolar approach, combining objective-oriented planning with disciplinary flexibility. The framework integrates learner-centeredness, problem-based learning (PBL), and community orientation as guiding principles. Priority health problems were identified based on prevalence, severity, and impact. Community engagement was embedded through the staircase model, ensuring progressive participation from consultation to partnership.

Impact:

The framework enhances critical thinking, problem-solving, teamwork, and community responsiveness. It also prepares graduates to address high-burden conditions such as diabetes and cardiovascular disease, while supporting Saudi Arabia's Vision 2030 health goals.

Lessons Learned:

With expert guidance and careful adaptation to available resources, it is possible to design a curriculum that is both innovative and sustainable, producing graduates who are clinically competent, socially accountable, and responsive to national and local health needs.

Keywords:
Curriculum planning, Community-oriented curricula, Student-centered education.

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Introduction:

The Makkah Colleges' medical curriculum aims to produce competent, socially accountable healthcare professionals addressing the priority health needs of Makkah city[^1]. The framework was developed using a bipolar approach, which combines objective-oriented curriculum planning with disciplinary flexibility. This ensures curriculum relevance and academic rigor[^2].

Traditional discipline-based curricula often fragment knowledge and discourage student engagement, while spiral models revisit concepts but may not directly link outcomes to priority health needs. The bipolar approach balances community needs with academic requirements, resulting in a pragmatic framework that is responsive and effective.

Curriculum Framework

The framework integrates learner-centeredness, problem-based learning (PBL), and community orientation into a coherent structure [^3].

• Learner-Centeredness: Students take ownership of their learning through self-directed study and reflection. For example, in the Cellular and Neurophysiology module (Year 1), students explore cellular signaling through case scenarios before participating in discussions, shifting from passive to active learning [^4].

• Problem-Based Learning: PBL links theory to practice. In the Cardiovascular and Metabolic Physiology module (Year 2), a diabetes case integrates physiology, biochemistry, and public health perspectives. Students analyze the case in groups, identify learning issues, and present evidence-based solutions, fostering critical thinking and teamwork.

• Community Orientation: The curriculum emphasizes early exposure to local health settings. In the Gastrointestinal and Renal Physiology module (Year 2), students visit primary care centers to observe hydration-related challenges common during Hajj. These experiences contextualize biomedical knowledge within the realities of the community [^5].

• Integration Across Disciplines: Foundational sciences are taught alongside clinical and public health concepts. For example, in the Regulation, Perception, and Diagnostics module (Year 3), neuroscience is integrated with diagnostic imaging, clinical neurology, and mental health. This horizontal and vertical integration enhances knowledge retention and aligns with World Federation for Medical Education (WFME) standards.

• Alignment with Standards: The framework is mapped to WFME and the Saudi National Commission for Academic Accreditation and Assessment (NCAAA) requirements. Graduate competencies—such as professionalism, communication, community engagement, and lifelong learning—are embedded in modules and assessments, ensuring accountability to both international standards and local realities.

Prioritization of Health Problems

The curriculum prioritizes health issues based on prevalence, severity, and community impact, preparing students to address pressing local and national needs [^2]. Using the bipolar approach, curriculum planning considers both Saudi health priorities and Makkah-specific challenges. This ensures graduates are well prepared to manage conditions such as diabetes, cardiovascular disease, and maternal-child health.

Community Involvement

Community engagement is central to the framework and operationalized through the staircase model, which ensures progressive involvement from consultation to partnership [^6].

At early stages, students join local health campaigns. In advanced phases, they collaborate with community organizations on projects addressing chronic disease prevention, maternal health, and Hajj-related health issues. This positions students as contributors to community health rather than passive learners.

By embedding the staircase model, the curriculum fosters genuine partnership between college and community. This collaboration strengthens social accountability, aligns with WFME standards, and supports NCAAA requirements. It prepares graduates who are not only clinically competent but also socially responsive to health inequities locally and globally.

Conclusion

The Makkah Colleges curriculum framework integrates learner-centeredness, PBL, and community orientation through a bipolar design that ensures academic rigor and contextual relevance.

Educational outcomes include graduate competencies in critical thinking, clinical reasoning, collaboration, community engagement, and lifelong learning, assessed through national licensing exams, OSCEs, and community-based projects.

Societal outcomes contribute directly to Vision 2030 health goals by:
• Strengthening primary healthcare through community projects.
• Addressing priority diseases such as diabetes and cardiovascular conditions.
• Enhancing healthcare for pilgrims during Hajj and Umrah [^7].

This framework represents a strategic contribution to Saudi health transformation and may serve as a reference for medical education reform in the wider MENA region.

Reference

1. Alharbi KK, Alzahrani AM, Aldadi MM, Basisi AM, Alshareef AM, Alghamdi RA. (2023). Assessment of community health needs in Makkah: A qualitative study. Indian J Med Sci, doi: 10.25259/IJMS_82_

2. Wagdy Talaat, Somaya Hosny, Essam Abdallah, Laila Makhlouf& Fathi Makledy. (1997). Revitalizing a problem-based curriculum in Egypt: The Bipolar Approach. Priority Health Problems in the Education of Health Professionals. Network publication, P 81- 88.

3. Wei-Li Ge, Xia-Yin Zhu, Jiang-Bo Lin, Jian-Jun Jiang, Tao Li, Yi-Fei Lu, Ya-Fei Mi, and Tao-Hsin Tung. (2025). Critical thinking and clinical skills by problem-based learning educational methods: an umbrella systematic review. BMC Medical Education https://doi.org/10.1186/s12909-025-06951-z.

4. William B. Ventres. (2022). More profound Teaching: from Theory and Practice to Learner-Centered Medical Education. J GenIntern Med 38(1):213–5 DOI: 10.1007/s11606-022-07815-8.

5. Boelen C, Dharamsi S, Gibbs T. (2012). The Social Accountability of Medical Schools and Its Indicators. Education for Health, 25: 180-94.

6. Talaat W, Amin M. (2024). Staircase model for community involvement in community-oriented/based medical education: Steps to achieve CO/CBME. Education for Health;37 (1), 265-269

7. Talaat W, Hamed O. (2024). Exploring the determinants of community-oriented health professions education. Education for Health, 37(1), 1-9.