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Editorial

Reimagining medical education: from resilience to reform

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In the years after the pandemic, medical education is changing. Schools all over the world are looking at new ways to get their students ready for the demands of modern healthcare.

They are changing the curriculum, using digital tools, analyzing data, and putting more emphasis on the students' well-being. These are just a few examples of this change. This shift is aptly reflected in the most recent issue of the Journal of Medical Education Development (J Med Edu Dev. 2025;18(3)), which compiles reviews and research pointing toward a new approach that emphasizes flexibility, original thought, and sincere concern for students.

Disruption as catalyst

It's obvious that COVID-19 changed the way that people taught. However, it also forced medical education systems worldwide to reflect on their current practices and implement significant changes. An important story is told by Nafea's research on Taibah University dental students [1]. Students faced confusion both academically and emotionally as they adjusted to a new three-semester curriculum after the pandemic.

The sudden changes were difficult for them to accept. This situation shows a common response; students, and often faculty, usually resist changes when curricula are modified without their input. The lesson for any institution considering a curriculum change is clear. This means institutions should prepare faculty, communicate changes transparently, and actively monitor student adjustment.

A structured method for introducing Competency-Based Medical Education (CBME) to first-year students is offered by Surapaneni's START CBME module [2].

The module demonstrated how early exposure to these ideas increases student involvement and enhances their understanding of and attitudes toward CBME.

This is in line with a larger trend in medical education that stresses learning outcomes over procedures, fosters lifelong learning habits, and places more emphasis on skill development than content memorization.

The tech and ethics question

Reorganizing programs is not enough to bring about real change. Medical education is changing in the modern era, driven in large part by advancements in technology and the ethical considerations they raise. Hawal et al. associates examined the perceptions of educators and learners regarding Artificial Intelligence (AI) in medical education [3]. It's a complex picture.

Although respondents acknowledged AI's potential to revolutionize clinical practice, they also voiced

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worries about the ethical and societal ramifications. This dual viewpoint, which blends caution and optimism, implies that medical education ought to cover both the technical and responsible applications of artificial intelligence. Students must learn to think critically in order to assess the advantages and drawbacks of AI as it becomes more and more integrated into healthcare.

Another important finding is indicated by Dastani and Kashani's review of educational data mining [4]. Teachers can make decisions based on sound evidence with the help of advanced analytics. They discovered four primary applications of data: anticipating which students may have difficulties, identifying students who require additional support, verifying that tests measure the intended things, and monitoring how students collaborate online. The problem is that data by itself doesn't improve learning.

However, these numbers require interpretation by skilled educators to be meaningful. Technology by itself is never the solution.

Making learning interactive and alive

Students come to life when educators use technology as an active learning tool rather than merely a delivery method. WebQuest-based learning, in which students look up information online to solve real-world problems, was studied by Mohammadi et al. [5]. The approach raised students' sense of autonomy in their learning and improved their self-efficacy.

The results show that active participation in learning activities is linked to higher levels of self-directed learning, confidence, and even a slight improvement in critical thinking abilities.

A similar conclusion can be drawn from Kamali and Mousavi's review of game-based learning in nursing education [6].

Games helped students perform better in class, feel more satisfied, and worry less, according to the majority of the studies they reviewed. Using educational games is a valid way to teach that fits with the ideas of adult learning.

Interactive teaching methods, such as game-based learning, can help students get more involved with the material when they have trouble focusing for long periods of time because they have too much information.

The heart of the matter: emotions and well-being

Studies indicate that students' mental health significantly influences their academic performance. When Kharaghani et al. looked into Acceptance and Commitment Therapy (ACT) as a way to help midwifery students, both their emotional health and their interest in school improved [7]. These results imply that student mental health is an integral part of medical education, not an add-on.

Sadoughi and Mazhabdar used structural equation modeling to examine the connections between medical students' psychological flourishing, grit, and life meaning [8].

Their analysis indicates that grit is a crucial factor in the relationship between life satisfaction and a sense of purpose. Pupils who persisted and discovered greater fulfillment in their education performed better academically and were generally happier. These results imply that educational initiatives that foster purpose and resilience may enhance students' general wellbeing and academic achievement.

What drives students forward

What motivates students? In their study of dental students, Taheri's team discovered that social background—gender, family status, and financial status—all influence whether students are motivated by intrinsic motivation or merely by rewards from outside sources [9].

Teachers can create more equitable and compassionate learning environments by having a better understanding of this. Nosratzehi et al. found in another study that students are less likely to burn out when they have confidence in themselves [10]. When combined, these results demonstrate a straightforward yet impactful truth: effective teaching involves being as concerned about students' feelings as with their academic progress.

Measuring progress

Chitaishvili's team examined the timing of OSCEs and discovered that scheduling them immediately after students' clinical rotations increased attendance without compromising performance [11].

They discovered that allowing students to take tests on their own time, immediately following their rotations, increased attendance without

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compromising the caliber of their work. Arab Borzu et al. translated and validated a tool designed to gauge how well students manage their own learning in blended learning environments [12]. To determine whether new strategies are truly effective, these kinds of meticulous, locally relevant tools are crucial.

The unwritten rules

Abushouk et al. analysis of dental education in Sudan emphasizes the significance of the hidden curriculum, or the subliminal messages propagated by institutional culture, faculty modeling, and ethical behavior [13].

These unofficial aspects of the learning environment could have just as much of an impact on the development of a professional identity as the official curriculum.

A new path forward

This issue's studies paint a picture of contemporary medical education that strikes a balance between rigor and reflection, structure and humanity, and new ideas and empathy.

Two concepts keep coming up: reform (improving and humanizing systems) and resilience (navigating through uncertainty). The solution isn't isolated curriculum changes or dispersed technological experiments.

We require a comprehensive strategy that unifies curriculum, progress monitoring, technology, and student welfare around the central concept of developing capable professionals who also exhibit compassion.

The development of healthcare professionals with both technical proficiency and interpersonal skills can be guided by research that combines evidence-based practices with consideration for the human aspects of care. The goal of this journal is to promote scholarship in medical education in a variety of disciplinary and cultural contexts. The research in this issue adds to current discussions regarding successful teaching strategies and the complex nature of healthcare education excellence.

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