



Integrated teaching in medical education in India: Scope, current status and opportunities

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Dear Editor,

Currently, most of the subjects during the undergraduate period are typically taught as standalone in most medical colleges across India, in order for each specialty to focus on their subject and provide timely updates to students.¹ Since there are many subjects to study, it becomes the responsibility of the student to correlate knowledge across the various subjects to acquire the skill of patient management.^{1,2} In essence, the current system of delivering medical education is disjointed and does not provide an adequate background for student to acquire the necessary skills to understand and analyze the whole patient.²

An integrated teaching-learning approach has been recommended to address this issue and has delivered encouraging results.³ The findings of several studies have revealed that shifting to an integrated mode of teaching results in a significant improvement in critical reasoning skills among the students and an increase in self-directed learning.^{2,3} An integrated curriculum allows the entire syllabus to be organized among the different disciplines and promotes the development of clinical reasoning and critical thinking and improves the ability to collect and analyze information.¹

The ultimate aim of integrated teaching is to expose medical students to learning opportunities that can facilitate the retention of knowledge that is not only relevant and meaningful but is deep, thus becoming a crucial foundation stone in lifelong learning.^{1,3} It focuses primarily on principles and concepts that can be used by students to help them understand existing problems and how to come up with solutions.² An integrated curriculum

has to be systematically planned and implemented in collaboration with all departments after all faculty members have been oriented to the process of integrated learning.¹

Integrated teaching reduces the amount of information overload associated with the traditional curriculum, where there is more focus on the delivery of detailed information and minimal emphasis is given to the link between various subjects and their clinical application.^{1,3} Moreover, integrated learning encourages learning in a comprehensive manner and reduces boundaries among various subjects and their departments while encouraging coordination among departments, including providing faculty members with multiple learning opportunities.^{2,3} In addition, it discourages repetition of the same topic across different subjects.¹

Realizing the scope and the merits of the integrated curriculum, medical colleges have begun to initiate implementation.^{2,4} At present, most have started integrated teaching, and both horizontal and vertical forms of integrated learning are being practiced.^{2,3} In some institutes, vertical integrated learning is restricted to first year, where specialists from clinical branches are invited to share their applied knowledge.^{2,4} However, considering that basic science departments form the basis of a medical education, some institutes have started the practice of involving the first-year departments in their final year.^{2,4} However, currently integrated teaching in most medical colleges in India are still at the planning stage, and beginning the process of implementation has left intended goals still beyond reach.

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Integrated learning has associated limitations; nevertheless, these can be overcome by systematic planning, better coordination among departments, supportive faculty members who understand the rationale and have been oriented to the process, support from management, and above all keeping current clinical practice in mind.¹⁻⁴ The process of developing an integrated curriculum can be time-consuming and resource-intensive, as there are few or no specific resources available.² In addition, there are operational issues, such as scheduling of timetables and classes, uncovering the true extent of integration, defining the roles and responsibilities of the involved departments, improving and adapting infrastructure and learning resource constraints, and recognising where coordination is lacking among involved departments, students and unsupportive faculty members.²⁻⁴ Further, having little or no alignment between the teaching-learning method and the mode of assessment is another major challenge for medical educators.^{1,3}

In conclusion, the typical medical curriculum is vast and students are expected to learn many subjects at the same time. Integrated teaching has been acknowledged as a useful and an effective mode of curricular delivery, but care should be taken to recognize that the curriculum

committee and the medical education unit play an essential role in implementation for optimal success.

Ethical approval

Not applicable.

Competing interests

None.

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