Patient safety in medical education: Medication safety perspectives

An overarching issue in the medical curriculum is patient safety, which is determined by several competencies: problem-solving skills, self-directed learning, and context-based and team-based learning that place explicit emphasis on curricula such as problem-based learning, case-based learning, opportunities for medical students. Arguably, innovative disciplines is a key issue in ensuring meaningful training without overloading the curriculum.

Basic and clinical pharmacology versus pharmacotherapeutics, integration in medical education by striking a balance between an urgent need to place greater emphasis on innovations and student assessment methods need to be revisited. There is also interventions. In particular, pharmacology course content and are appropriate, and what is the effectiveness of educational in the medical curriculum, what teaching – learning strategies is, however, less clarity in terms of the curricular strategy a core competence expected from graduating doctors. There need to be integrated while deciding drug therapy, keeping in mind the potential for drug-drug interactions. The importance of understanding, the basis for variable response to medicine is relied by many, very often while seeking modern misuse, etc., have to be incorporated in the curriculum.

Integration between pharmacology and various clinical disciplines is a key issue in ensuring meaningful training opportunities for medical students. Arguably, innovative curricula such as problem-based learning, case-based learning, and team-based learning that place explicit emphasis on problem-solving skills, self-directed learning, and context-based learning should promote medication safety competence, although the evidence is less conclusive. Regardless of the curricular strategy adopted by medical schools, promoting essential drugs concept, stipulating standard treatment guideline protocols for common health problems encountered in general practice, encouraging the use of a formulary - are readily feasible to be implemented pending major curricular reforms. Implicit to these strategies is a realignment of the allocated time for course implementation, and perhaps faculty development initiatives. Professional bodies, such as the Indian pharmacological society have to play a major role by setting policy guidelines, organizing thematic workshops and other training opportunities for faculty.

There is also a need to introduce student assessment methods that measure appropriate psychomotor skills related to medication safety. Well-constructed objective structured clinical examination stations focusing on communication skills related to drug therapy, evidence-based medicine principles, use of the formulary, and drug-related procedural skills need to be fostered. Communication with patients on the correct use of medications, as well as public education on issues such as hazards of self-medication, over-the-counter-drugs, antibiotic misuse, etc., have to be incorporated in the curriculum.

In countries such as India, complementary and alternative medicine is relied by many, very often while seeking modern drug therapy; health beliefs and practices of the community need to be integrated while deciding drug therapy, keeping in mind the potential for drug-drug interactions. The importance of taking a good drug history exploring the concurrent use of herbal and other traditional medications should not be underestimated.

A comprehensive debate on patient safety ought to link medication safety to other determinants such as health care organization in a given country, communication skills training, procedural skills, etc. In an era of explosion about the number of new drugs and drug formulations being approved each year there is a need for continuing professional education for health professionals. Along with newer insight into better understanding, the basis for variable response to drug therapy and susceptibility to adverse drug reaction due to gene polymorphism among ethnic populations has led to the emergence of personalized or individualized medicine. Sensitizing the medical students to these developments is essential in improving medication safety issues.

In general, it is during the internship period, doctors get greater training opportunities on medication safety. Doctors acquire practical training during this phase of their training. In many countries, such as the Gulf Cooperation Council countries,
among others, passing the licensure examination is mandatory after completion of internship; Test blueprints should explicitly include patient safety theme (incorporating medication safety), as a core competency.

Other health professionals, such as nurses and pharmacists, have an equally important role in ensuring medication safety. Several institutions have attempted multi-professional training to better integrate related health profession training. The emergence of clinical pharmacology, as well as clinical pharmacy as specialties perhaps, is a good trend in ensuring better medication safety. The establishment of national pharmacovigilance centers in recent years has promoted the establishment of databases on adverse drug events is a right step in promoting medication safety.

Finally, there is a need for international cooperation and collaboration in defining a core curriculum on medication safety, in our quest to ensure patient safety and improve the quality of health care.

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