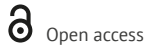


## EDITORIAL

## On medical education in Latin America

*Sobre educación médica en Latinoamérica*



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Although the World Medical Association has established the minimum quality standards for the training of general practitioners in order for them to acquire the basic medical competencies necessary to practice their profession properly,<sup>1</sup> it is also important to remember that there are psychosocial aspects that influence the training processes of medical students. In this sense, the social responsibility of Latin American medical schools to train competent physicians in order to contribute to the reduction of inequalities in the region has been included in recent decades as a standard of quality in medical education.<sup>2</sup>

Healthcare in Latin America is affected by social factors that include, among others, armed conflicts, high rates of poverty and unemployment, and a high rate of consumption of psychoactive substances. Therefore, for an adequate response to the health needs of the communities in which they will practice, future physicians must be able to understand the impact that these social determinants have on people's health and on their access to these services.<sup>3</sup>

In 2020, according to the Academia Nacional de Medicina (National Academy of Medicine), there were 63 medical schools in Colombia (18 public).<sup>4</sup> However, medical programs are not fully articulated with the country's current health system since, despite the fact that primary healthcare is considered the cornerstone of the system, the clinical practices of medical students are carried out only in tertiary and quaternary care centers, even though they should also be carried out in primary and secondary care institutions.

Accordingly, it is necessary to adjust the educational processes of the country's medical programs, starting with a change in the teaching model, moving from a model of rote learning to a more integrative one that promotes meaningful learning that allows medical students to develop the clinical competencies needed in clinical practice.

In this regard, the latest issue of the *Revista de la Facultad de Medicina de la Universidad Nacional de Colombia* features two articles related to medical education in two Latin American countries (Colombia and Peru).

In the first article, Layton-Jaramillo *et al.*<sup>5</sup> describe the results of the implementation of a strategy based on context-based learning to improve the learning of concentration calculation among medical students. This strategy, known as "solutions with empathy", according to the authors' findings, increases motivation to learn about the topics and connects intangible concepts of the basic sciences with reality, such as the patients who are treated daily in a doctor's office, thus concluding that the use of teaching resources, like context-based learning, favors the learning of chemistry by medical students when calculating concentration units.

Finally, Layton-Jaramillo *et al.*<sup>5</sup> reflect on the usefulness of constructing curricula based on real problems that make sense in the context of the professional training of medical students, instead of giving them exercises that turn them into experts in following a recipe by heart, hence the importance of using novel teaching resources and new technologies in medical education.

In the second article, Fernandez-Guzmán *et al.*<sup>6</sup> point out that research should be urgently promoted in Latin America as part of the training of medical students, stating that, although undergraduate theses are one of the first research experiences for a large number of students, in many cases they do not receive adequate guidance and support, resulting in low publication of such work in indexed biomedical journals. Some of the most important findings of this study include a low rate of thesis publication in scientific journals and that less than half of the recently graduated physicians who participated in the study intend to have their graduate work adapted and published as biomedical articles. This may be related to the main barriers to publication reported by these physicians, which include lack of knowledge on how to make a submission to a scientific journal and insufficient access to advisors with experience in scientific research.

Furthermore, Fernandez-Guzmán *et al.*<sup>6</sup> point out that in developing countries, such as Peru, there are several factors that may favor plagiarism in the context of research in medical programs. These include lack of training in responsible research behavior, poor writing skills, tolerance of plagiarism during academic and professional activities, lack of institutional policies, and lack of supervision by academic centers and scientific journals.

Finally, it should be noted that competency-based learning models seek to train physicians who know “what to do in a given context”, which does not imply that research takes a back seat. In this sense, it is worth asking whether in Latin America the research component in medical programs should focus on solving the problems that affect communities and that are encountered daily in clinical practice, or whether it should only be considered as a graduation requirement (thesis) to obtain the degree of medical doctor since, as mentioned by Torres-Calixto,<sup>7</sup> facing the trends and challenges of medical education implies understanding the contextual factors that directly and indirectly influence it.

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