



# New challenges for medical education and the post-pandemic impact

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## Introduction

It is essential that medical students understand the complexity and breadth of the individual and their relationships within the health-disease process, considering the continuous and overwhelming changes that occur in this daily life. But, it is also essential that medical education schools adapt to this “new normal” because it is not enough to create new universities, transform the traditional methodology by PBL (Practice Based Learning), increase hours, change the curriculum or introduce innovative technologies if students do not enter in the practice fields and reflection where aspects of technical scientific training are extrapolated [1].

It is fact that we live in a complicated time, where it is necessary to overcome the impossibility of personal contact, use the measures we have at our fingertips and adapt the transition of pedagogy (the art of teacher-centered teaching) to andragogy (the art of helping the adult to learn) [1,2].

The new demands require changes to the model of higher education scaled quantitatively and qualitatively and that will affect the training of health professionals [3]. A focus on students, from the clinical cycle, with the purpose of developing “soft skills” such as availability, empathy, teamwork and leadership, must be reinforced. Such skills will be crucial in a future doctor-patient relationship, with an individualized and adequate treatment aimed at the patients and not just the disease. It is clear that even if medicine is enriched with the most advanced technologies, communication will continue to be the most efficient tool for physicians to exercise their art and science. The role of educational entities must follow this scenario, respecting ethics and striving for the training of more humanistic physicians [4]. Therefore, it is essential to insert this student into a practical context that dialogues with our new reality. In this way, changes are needed in the higher education

model that moves towards a hybrid model, including extension projects and the telemedicine in the curriculum [5]. Finally, in view of the disastrous consequences, whether in the physical or psychological aspect, that the SARS-CoV-2 virus bequeaths to patients even after a considerable period of time to deepen the knowledge about the post-COVID-19 Syndrome [6,7]. Therefore, this study aimed to analyze studies facing current challenges in medical education and the post-pandemic impact.

## Methods

This is an integrative literature review, using the Scielo and Medline/PubMed databases, the journals Jornal Internacional of Ethic Education and Brazilian Magazine of Medical Education. The search took place using the keywords “Changes in medical education”, “Information Technology” and “New Protocols” combined by the Boolean AND operator.

## Results and Discussion

Eight articles were analyzed and Resolution No. 7, of December 18, 2018 (Ministry of Education - MEC), which establishes the Guidelines for Extension in Brazilian Higher Education [1]. Among the topics raised, it is noteworthy that the extension projects should serve as allies between theory and medical practice; and its inclusion in the scientific production category will serve as a stimulus to research for students interested in the area. In the field of telemedicine, professors and students need to learn about protocols for its use, as respect for secrecy and privacy in the virtual environment; clarifying to the patient the limits of use and highlighting the cases in which face-to-face contact is essential; use of technology for tele-consulting between professionals, allowing the exchange of experiences, approaching different forms of care,

treatment or techniques used in large centers around the world. Tele consulting between professionals is already being widely used and serving as an effective tool for exchanging experiences.

The pandemic has caused an unprecedented disruption in medical education and it is essential that certain measures taken during this period continue to meet the new scenario we find ourselves in [8-10]. The continuity of the hybrid system for essentially theoretical disciplines is part of a reality that is here to stay. The lessons learned at this time of crisis should serve as a learning experience and encourage continuous adjustments, either by educational institutions or by students. Finally, in view of the disastrous consequences, whether in the physical or psychological aspect, that the SARS-COV-2 virus bequeaths to patients, deepen the knowledge about the Post-COVID-19 Syndrome in order to allow effective monitoring and treatment, in addition to the inclusion of this discipline in the course curriculum [1-3].

This inclusion, more than provide theoretical knowledge for understanding future complaints in practical life, will also serve for specific care for health professionals who were sequelae after being contaminated by the virus. The concern with the physical and mental health of the health professional who transforms into a patient is evident, as he has to face everything without showing this fear. For these, psychiatric disorders are common and can affect them like any other infected. What seems to be, at first, a sign of vulnerability, demonstrates an act of courage and respect for their health before taking care of the health of their fellow man [4,8,10].

## Conclusion

It is obvious that some changes imposed by the pandemic in medical education should last, such as hybrid education. Eminently theoretical contents must follow in the remote teaching modality, restricting to the practical field only those disciplines that demand these notions. The firm and coherent posture of medical education institutions is a fundamental premise in order to demonstrate their concern with the safety of students, avoiding crowded classrooms. In addition to demonstrating his skill in crisis management. The importance of a scenario of collaboration, sharing of techniques, ideas, theories that will only further leverage medicine in a cooperative and borderless way, in benefit of the patient's health and well-being, remained evident. This technological advance allowed the continuity of activities even remotely, the creation of some tools such as the inclusion of extension, telemedicine and teleconsulting are essential for the

continuity of quality medical education in this new scenario. However, in a conscious and complementary way, this ethical relationship that is based solely on telemedical resources is unacceptable. The time for change is now and we must equip ourselves with pertinent solutions that adapt to this new reality with strategies that minimize the damage left by this pandemic temporal hiatus. In addition, be aware that the changes in medical education will last, and the responsibility of medical education schools to ensure the safety of students and promote adequate training for teachers is paramount for the moment.

**Keywords:** Medical Education. Distance Education. COVID-19. Telemedicine. Change Management.

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No additional data are available.

## Conflict of interest

The authors declare no conflict of interest.

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