

IFMSA Policy Proposal

Post-Pandemic Recovery of Medical Education

Proposed by Team of Officials

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Policy Statement

Introduction

The COVID-19 pandemic will be considered in history as a global health crisis in many aspects. For medical education, it meant the creation of structured and special training programs in a virtual setting. We have learned that pandemics tend to recur over time, and epidemics will continue to break out. All concerned efforts must be directed to preserve the safety of patients, students, and faculty and the continuity of medical education by finding innovative ways to embrace face-to-face teaching alongside online delivery. Designing quality assurance methods to evaluate the online curriculum and assessment of its delivery is also essential. After this pandemic, research is required to monitor the imposed online pedagogy, students' academic performance, mental health, and clinical skills. In this sense, medical students have a fundamental role in the decision-making process about the future of their medical education in their schools, as they are the ones who are most directly impacted by the consequences of such decisions.

IFMSA position

In the post-pandemic era, the International Federation of Medical Students' Associations (IFMSA) believes that recognizing and re-addressing the needs of medical students and their education is paramount in building a healthier and stronger health workforce to deal with future healthcare challenges. IFMSA affirms that medical students must be supported and included in every aspect of their medical education following the latest pandemic recommendations and appropriate adaptation to the local context, keeping in line with our motto, "Think Global, Act Local". Finally, IFMSA reiterates that, as one of the most significant stakeholders in their own education, medical students must be well trained in a safe and controlled environment and well informed and involved in any and all decision-making processes.

Call to Action

- IFMSA calls for *Governments, Health Ministries, and National Health Institutions* to:
 - Build national-level policies on guiding medical students' participation in direct in-person patient contact activities;
 - Build transparent, collaborative, and coordinated health communication strategies;
 - Facilitate robust surveillance and reporting to identify specific epidemic profiles;
 - Promote the strengthening of supply chains, guaranteeing a physical resource pool (ventilators, masks, reagents, tests).
- IFMSA calls for *Global organizations involved in medical education (such as the World Federation for Medical Education, AMEE, An International Association for Medical Education)* to:
 - Issue-specific themes/objectives/standards and guidelines that are to be included in the Medical Curriculum according to the conclusions of the most recent research regarding this topic;
 - Guarantee that guidelines are flexible, rigorously tested, not used punitively, and motivated by desires to improve quality;
 - Define guidelines for hybrid teaching modalities (Procedural simulations, Case-based learning, Gamification, Flipped classroom teaching, Team-based learning), using "good practice" examples;
 - Define guidelines for Medicine learning during Public Health emergencies;

- Define strategies for strengthening accreditation and quality assurance processes with guaranteed periodical supervision.
- IFMSA calls for *Medical Schools, Faculties, and Academia* to:
 - Define guidelines for inter-faculty cooperation for curriculum development, promoting Interprofessional learning (e.g., patient safety and care transitions);
 - Ensure that population health needs are being addressed as part of the course, having a community-based approach;
 - Define contingency plans for public health emergencies, according to national and international guidelines, favoring in-person teaching and identifying opportunities for students, time, and resources;
 - Implement national and international strategies on hybrid teaching, encompassing technology-based and non-technology-based educational methods and experiences;
 - Assure that distance learning delivers, at a minimum, the same curriculum coverage and outcomes as a non-distance learning course;
 - Promote the creation of student support systems, including access to mental health professionals networks, disability services, occupational health, and financial services;
 - Review of the conduct and qualities of the course;
 - Adopt and support a training model for all learners, faculty, and staff.
 - Actively involve students in the process of the curriculum design and development of distance learning and hybrid-based curricula.
- IFMSA calls *Youth-led NGOs and National Member Organizations* to:
 - Integrate and coordinate the processes of post-pandemic medical education/curriculum reform in a horizontal manner;
 - Work in coordination with other stakeholders to develop a strategic plan with a shared vision and mission for better development on the local, national, and international level;
 - Advocate and promote interprofessional and interdisciplinary initiatives;
 - Advocate for learning experiences that promote social astuteness, interpersonal influence, and networking ability;
 - Advocate for mental health networks and strategies on academic and non-academic institutions;
 - Advocate for periodic course quality assurance.

Position Paper

Background information

At the start of the COVID-19 pandemic, social distancing measures were imposed to limit the spread of infection [1]. Although necessary at the time, these restrictions stood in the way of traditional in-person education. Schools had to urgently adapt their curricula to the remote setting, without the luxury of meticulous preparation [2].

Discussion

Impact of COVID-19 on Medical Education

Accreditation and Quality Assurance

Accreditation and quality assurance play a fundamental role in improving medical education by adjusting to the changing conditions of the health system. Quality assurance of medical education contributes considerably to the competence of medical students, as it can influence the admission criteria, curriculum content, teaching and learning methods, learning environments, assessment systems and ultimately ensures education and training in new information technologies to help cope with the rapid development of medical knowledge and research. [3]

In 2016, the World Health Organization (WHO) issued the Global Strategy on Human Resources for Health: Workforce 2030 document [Link]. The first objective of this strategy stipulates that "by 2020, all countries will have established accreditation mechanisms for health training institutions". Unfortunately, the unprecedented public health crisis we are witnessing has dramatically deviated from this timeline, due to not only hindering those mechanisms that were already in place but also due to the pandemic exposing and further exacerbating many educational obstacles that were being faced. Therefore, quality assurance agencies and organizations created new regulations and standards to help guide the process [3, 4]. The comprehensive Standards for Distributed and Distance Learning in Medical Education (DDL) issued by the World Federation of Medical Education (WFME) address remote medical education through 8 different working areas [4]. Moreover, the Educational Commission for Foreign Medical Graduates (ECFMG) took the initiative to implement their accreditation requirement to 2024 rather than 2023 [24].

In our post-pandemic context, it is now more essential than ever to strengthen accreditation processes that cannot meet current and future education requirements to respond to population health needs and changing clinical practice. By following established standards, these processes should seek to develop a culture of continuous quality improvement for medical education and consider the opinion of the most directly affected population: medical students. This can be built by generating evidence of efficient post-pandemic educational systems that can be applied to national and local institutions to improve educational programs and support countries struggling to meet them. Student Councils, Interfaculty Councils, or Student Centers must be included in a continuous evaluation and measurement of quality assurance mechanisms and changes in the medical curricula. [5]

It is necessary to align the educational policies in medicine proposed by international entities such as the WFME with the national and local curricular plans of study, training programs focused on the student, national priorities and needs, global development strategies, and the requirements of the

professional labor market. [6] Doing so will promote advancement beyond the current online and hybrid education for medical students and harness the benefits of globalization for their excellence.

Social Accountability

The COVID-19 pandemic is the defining global health crisis of our time, revealing the need for governments and health authorities to improve outbreak preparedness and response by incorporating a health systems response with national and international measures. According to the WHO, the above can be achieved by acting on significant domains such as leadership and governance - including the highest level of government and private sector entities, health workforce, health information systems, medical products and technologies, financing, and service delivery. [7] Social accountability, understood as a necessity for medical students and doctors to practice person- and community-oriented health to improve patients' health and welfare, is defined as a priority for pandemic preparation strategies. [8]

There is a need to act holistically and coordinated, operating on different levels. The first level is improving public health communication and health literacy by creating clear, consistent, comprehensive, and up-to-date communication strategies, fostering transparency and trust. These need to take into consideration different cultural contexts as well as consultations with public-health experts, opinion leaders, and community representatives at all levels. The second level is the facilitation of robust surveillance and reporting to identify specific epidemic profiles. [8]

The strategy of pandemic preparedness should regard two national resource pools for pandemic response: a human resource pool of appropriately qualified health workers or other people with quickly transferable skills, and a physical resource pool (ventilators, masks, reagents,...), with coordinated measures and strengthening of supply chains, allowing an equitable distribution. The nourishment of health systems should be done by increasing funding throughout its different institutions, task-sharing, and task-shifting within the scope of current roles, optimizing care. Therefore, social accountability requires health and social equity, achieved with guarantees of social-protection programs and access to free health and social care. [8]

Safety of Medical Students

During the COVID-19 pandemic, many medical students worldwide were pulled to the front lines, helping with efforts to curb the pandemic. [9] This method was considered a "safe alternative" to expanding the health workforce through various methodologies, including considering medical students as healthcare workers [10] or even graduating early. This inevitably placed medical students under tremendous pressure physically, psychologically, and socially. Major physical determinants include increased risk of exposure of medical students to the virus, especially with the lack of personal protective equipment (PPE) and other safety measures. On the psychological aspect, the pressure of worrying about personal safety or facing the consequences if they choose not to participate in efforts against the pandemic has had significant tolls on the mental health of medical students. [11]

In the study "The impact of CoVID-19 on Medical Education" conducted by IFMSA in 2020, [1] out of 411 responses, 221 (51.3%) stated that they were actively involved in some levels of the fight against CoVID-19. This included many working at an "Emergency Level", which involved them in triage, first examination, and patient involvement. However, in the same study, nearly half of the responses (47.9%) answered that no official protocol/statement or policy outlined medical students' involvement in the outbreak. This points out a significant gap between what was requested from the students and the safety measures presented to protect them.

To tackle this issue, some countries such as the United States have developed national-level policies on guiding medical students' participation in direct in-person patient contact activities [12]. A policy like this provides a framework that medical schools can follow to protect students in clinical and non-clinical settings adequately. Especially as the main objective of medical education is for students to complete it and learn to become a doctor, a document should outline the necessary steps for medical schools to ensure the safety of their students. However, it is noted that such a document, especially at the national level, cannot and should not supersede a medical school's independent judgment on deciding what is best for their medical students and should adapt on a regional basis.

The safety of medical students extends beyond physical health, which is why psychological health should also be concerned, including anxiety and mental health issues. The pandemic has inevitably affected the entire population with various causes, from anticipatory anxiety to dealing with a high degree of sickness and death. [11] In particular, medical students on the front line would more easily face mental health issues as they are thrown into the situation at a less prepared state than their seniors from the past. [19]

Apart from the direct effects of the pandemic, the unprecedented situation induced uncertainties about their education, research, career progression, and lives in general. It left the students in stressful conditions, particularly new international students and those in their final year. Financial pressure was another major problem for many students, especially international students with family support when parents had lost jobs and could not support them anymore. Coordinators must be mindful of these situations and provide the best advice individually as they reinsert medical students in an in-person educational model. [26, 27, 28]

Post pandemic Medical Education strategies

"The pandemic is not a revolution in medical education, it is an opportunity to learn how we can make education better." Professor David Gordon - President of WFME. The COVID-19 pandemic created new challenges to medical education, and such a disruption of the learning environment requires leadership and coordination across sectors.

Some of the strategies used by different medical schools may have power beyond the pandemic, reshaping how tomorrow's health professionals are trained.

Stronger focus on Public Health & Epidemic Preparedness

Post-Pandemic medical education needs a stronger focus on public health and the community's needs. In response to the COVID-19 pandemic, medical schools have created electives giving medical students the chance to engage with public health entities. As done by Ohio University Heritage College of Osteopathic Medicine's (OU) [13] Dublin campus, students could actively contribute to the Public Health Response and have a value-added curriculum. The pandemic has had a significant impact on the capacity of health systems and the effectiveness of healthcare services provided for the public, which led to the critical scrutiny of the quality of medical education worldwide and how it prepares healthcare students and future health professionals to face crises. In a study "The impact of CoVID-19 on Medical Education" done by IFMSA in 2020, students were asked to rate their medical education preparedness on a scale of 1 to 5, the global average of 411 respondents was 2.74/5 on how confident they feel their education prepared them to face outbreaks and control pandemics. These results emphasise the importance of changing how we think about educating future health professionals and how medical education curricula are designed.

Interprofessional education, collaboration and knowledge exchange

Furthermore, the pandemic highlighted the importance of interprofessional education, collaboration and knowledge exchange approach to medical curricula. Since 1996, the Royal College of Physicians and Surgeons of Canada developed and adopted the CanMEDS framework [20]; the primary purpose is to define the necessary competencies for all areas of medical practice and provide a comprehensive foundation for medical education and training in Canada. Collaboration and Communication are two of the competencies needed by future health professionals, and it is evident now more than ever that we need to implement approaches that enhance these two. Interprofessional Education (IPE) was defined in the WHO Framework for Action on Interprofessional Education and Collaborative Practice (2010) as "when two or more professionals learn about, from and with each other to enable effective collaboration and improve health outcomes". In the United Kingdom, the Center for the Advancement of Interprofessional Professional Education (CAIPE) was established in 1987, and The Journal for Interprofessional Care was first published in 1986 [21], so it is evident that the need for IPE has been recognized internationally since the mid-1980s.

Taking the example of the sharing of online resources between UK medical schools [14] and a look at the integrated interprofessional research teams, producing weekly newsletter responding directly to COVID-19-related questions [15] at the University of Manitoba, Winnipeg, it is evident that many opportunities arise for collaborative learning, development and meaningful contribution. Evidence suggests that implementing IPE presents various benefits both in acute and primary care, including, but not limited to, better access to health care, improved patient safety, discharge expedition, a reduction in medical errors, and increased patient satisfaction (World Health Organization, 2019) (CAIPE). Based on this evidence, medical schools should consider including IPE and Collaborative Practice in their education, research and service activities. [22] A team approach is required to address the multifaceted health problems of individuals and persistent health disparities within populations, especially when providing care to vulnerable people facing health inequities.

IPE is an opportunity to step back and reconsider the traditional means of healthcare delivery to guarantee a change in medicine and health care culture worldwide to develop a collaborative practice-ready health workforce. The core competencies for IPE can be summarised into five themes: Roles and responsibilities, Ethical practice, Conflict Resolution, Communication, Collaboration and teamwork. IPE should achieve different goals as the following:

- Profession-linked perspectives and work-oriented learning;
- Improvement of teamwork;
- Reduction of prejudices in the workplace;
- Enhancement of a patient-centred approach;
- Support of workplace wellbeing.

These all will lead to better healthcare quality in general as a collaborative-ready health workforce is the key to strengthening health systems and meeting populations' health needs.

Tech-based Andragogy and Student-faculty partnership

Even though the pandemic has affected medical education, practical hands-on training has been considered part of regular medical training. Course coordinators have found creative ways of providing students with a virtual hospital experience by interacting with simulated patients or solving real clinical cases. Some universities have built simulation centers on their campus, and little by little, they have started to integrate students into a hybrid educational model. Most universities

reported that on-campus labs and potentially some hospital-based visits might be possible depending on local and national restrictions.

COVID-19 has already introduced new methods of learning in medical education. The adaptations to distance learning emphasized the power of tech-based andragogy and the benefits of online learning, inviting medical students' feedback and supporting medical educators to adapt to the new reality. To continue the educational process, academic institutions worldwide have accelerated the development of an online learning environment.

In recent years, Synchronous (live) Distance Education (SDE), such as video conferences and virtual classrooms, has been widely used for educational purposes in health science students. A recent meta-analysis of randomized clinical trials demonstrated a higher overall satisfaction (standardized mean difference 0.60, 95% CI 0.38 to 0.83; $p < 0.001$) for SDE compared with traditional education, showing that medical students accepted SDE. The adoption of online learning in medical education can have several benefits: a major advantage of SDE is the flexibility of time and location and subsequently increased convenience, which means medical students can adapt their schedules more efficiently. Besides schedule flexibility, Online Education can also be much more cost-effective than classroom-based learning, as it does not require educators or learners to move. At the same time, more individuals across different institutions (or even countries) can participate in virtual courses. [6] In addition, e-learning assists medical students to better adapt to a web-based medical world that increasingly uses digital health services. [16]

In addition, the pandemic set the ground for a stronger student-faculty partnership as an enabler of adaptations to the curriculum, which was the case at the Faculty of Medicine, University of Toronto [17], empowering learners to contribute to knowledge and connect with their scholarly and professional communities of practice. Post-Pandemic Medical Education requires meaningful and active consultation of student leaders on their preferred delivery methods and co-creating learning materials extending the Faculty's curriculum development capacity.

Mental Health Education

Last but not least, the pandemic highlighted the need for more robust mental health education as part of the medical curriculum. Even before the pandemic, medical students had reported experiencing high rates of distress, burnout, anxiety, and depression [18]. The psychological impact of the COVID-19 indicates the need for psychological support to medical students to develop agility and resilience as health professionals, promote mental health literacy, and address stigma in the health environment.

To manage the mental health of medical students and healthcare workers, proper training on dealing with mental health was recommended by experts [19], including ensuring that medical students know the associated challenges of the job and providing a full assessment in plain language. Routine support should also be arranged, and medical students to be trained to look out for one another's mental health. Additionally, it should address some people's avoidance of talking about traumatic incidents and get an appropriate referral to mental health professionals when necessary. Such measures can ensure that medical students are protected at any point during their medical education.

Human-to-human interaction is also fundamental, with the level of student-student and teacher-student interaction being affected during the COVID-19 pandemic. However, the opinions about the new model of online interaction were variable. Some universities agreed that with a small number of students on the online platforms, the interaction between teacher and students was higher, and students could easily engage in-class discussion. Others reported poor attendance at lectures, dropping as the semester progressed. While some might argue that returning to the

"old-way" of teaching is the best option for the students' social development since face-to-face interaction helps with the feelings of isolation, loneliness, and anxiety, at the same time, in some countries, the flexibility of online courses and learning showed an increase in the mental health wellbeing of students. [23]

Meaningful inclusion of Medical Students in the post-pandemic reform

At an international level, the youth population represents approximately 15% of the entire population. [25] The significant population level that young people represent is evident. It will be they who will continue the development of the countries and the world in the future. Currently, the empowerment and participation of young people are considered one of the main objectives to achieve a positive impact in the world. That is why, at the international, regional and national level, various organizations recognize the youth population as active agents in the process of community improvement. It is young people who currently play a role in society to build a sustainable world for all. [3]

In recent years, it has been perceived that both at a social, economic and educational level, young people have not yet acquired a leading role in the decisions made by the authorities in each of these areas. Their opinions and needs are omitted most of the time. [5] These situations hinder full development, and it is impossible to develop all the necessary skills for fruitful progress within society. Furthermore, as a consequence, when they play leading roles for the first time, their projects end up being of limited scope, impact, or both.

The redefinition and evolution of the relationship between students and institutions from mere representation to active participation in decision-making have changed students' understanding of their role and contributions to the institution's development. When students are seen as partners in decision-making and learning, there is a particular emphasis on student and quality of learning development. This will be a crucial weapon during the post-pandemic medical education recovery. [6] Students can work as faculty partners having a meaningful contribution to learning co-creation, assessment, curriculum development, plus quality assurance and accreditation.

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