Expected Results from a Predictable Phenomenon: An Approach to Education in Times of Pandemics

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Abstract
Throughout history, humans and infectious diseases have spread across the world in almost equal proportions. Since the Antonine plague, multiple epidemics and pandemics marked the course of events, pushing the capacity of the economic, political, education, and social systems to the limit, on a global scale. The paradoxical effect of outbreaks relies on their capacity to easily overwhelm the health system, destabilize the political structure, and affect the usual social behavior, but at the same time, determine great advances for mankind. The way in which we stand against these challenges determines our resiliency and preparedness to face new outbreaks. Of all the areas suffering from the effect of massive infections, education might probably be the most silent but with an enormous impact on society. An Argentinian, outdated education system, unable to adapt to constant changes, will directly affect the whole population, its activities, and its future.

In the last century, the Spanish influenza claimed millions of lives in addition to the victims of the Asian influenza, severe acute respiratory syndrome-associated coronavirus (SARS-CoV) in 2002, the influenza H1N1 pandemic in 2009, Middle East respiratory syndrome-related coronavirus (MERS-CoV) in 2012, Ebola in 2014, and, finally, the current severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic, which is registering at the moment, a total of 9 937 618 confirmed cases, 497 427 deaths, and 5 008 895 recovered patients in 188 countries.

Why was the impact on medical education predictable? There are several arguments to support this assertion. The first one is the feasibility of the emergence of new outbreaks in times of globalization. Ten years have passed since the last pandemic hit the world, and very little has been done to improve medical education in Argentina, proving not to be a political priority. According to preliminary data from an ongoing national questionnaire that aims to measure the impact of the COVID-19 pandemic on medical students, 3.2% of Argentine universities have not done it. Unfavorable social factors in underdeveloped countries, heightened by the COVID-19 pandemic, show that 10.9% of medical students do not have computers and 26.6% both study and work at the same time, determining an even more complex context. While many universities continued to carry out classes through virtual platforms, there is no control over the quality of the content, teaching methods, student accompaniment strategies, future programs to fill the absence of real case-based practical work with patients.

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It is important to recognize the close relationship that should exist between a country’s medical education system and the health system. On the one hand, professors of most subjects of the medical career are health professionals who carry out their activities in the context of the current pandemic, so they can be subjected to excessive working schedules and stressful situations affecting their dedication and quality toward learning spaces. On the other hand, students of the last years are normally intended to carry out their activities within the hospital units that are closed. Training areas for students, residents, fellows, and visitors are affected due to the suspension of activities in hospitals as an epidemiological measure to mitigate contagion.

It is not difficult to foresee future pandemics. We might even suspect that they will develop with even shorter time intervals between 1 and the other. During the last years, the educational trends took us to discuss many aspects of this topic, but very few things have been made in developing countries to foster and apply new techniques, to adapt to new scenarios and make a change in the educational paradigms. Efforts to use technology in favor of education could have been done long ago.

As part of a country preparedness to disaster and adverse situations, educational containment plans should be designed as a way to minimize their impact on continuing medical education.

In the last decade, information and communications technologies have been globally implemented, providing solutions in different areas. Learning spaces use a wide range of technological resources for exchanging ideas, presenting clinical cases, and complementing traditional ways of learning with interactive content. Nowadays, it is hard to interestingly approach lessons without some kind of audiovisual or virtual support. Some alternatives are suggested in Table 1.

It is mandatory to review education policies at levels of command to foster the creation of new and better opportunities for our students. In the best of the cases, the legacy this pandemic will leave us is the awareness of the actual state of the education system in developing countries as the essential foundations of where to start building a renewed educational structure.

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Ethical Standards. The study represents an observational analysis of an actual situation. No interventions have been made with humans nor with animals. No ethics committee approval was required.