



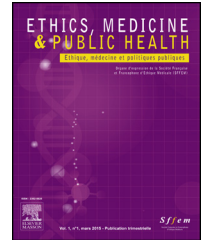
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EDITORIAL

COVID-19: The urgent call for academic research in research ethics



KEYWORDS

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 Open Science

In recent years, research integrity has become a central concern of the scientific community. This impulse attempts to answer, in a contemporary context, the fundamental question that guides research: how to make “good science”? If researchers are well aware that the so called good science remains utopic, they pursue the most respectable way to do science and to live justly in their scientific community. Far from a moral injunction that no one would be able to satisfy, research integrity is an ethical conduct by which the construction of knowledge can be shared by peers and confidently recognized by citizens.

Among the issues most central to this questioning of the scientific community are the crisis of reproducibility, the question of conflicts of interest and that of predatory journals – all of which are linked by the latent question of the evaluation of scientists. These issues were brought to light and even amplified during the COVID-19 pandemic, as a result of a scientific mediation that had never been anticipated and that led to a loss of confidence in scientists by politicians and citizens.

Rebuilding the scientific ecosystem

Care has a price, research has a price: this engages ethical tensions with the Hippocratic oath and the archetype of scientific knowledge as a not marketable universal good. On the basis of this observation, the states have agreed worldwide to evaluate their scientists on a quantitative model: number of articles published, number of citations. As funding goes to the researchers with the highest number of articles and citations, this has favored the publication of a large number of articles at the expense of their quality [1].

The material inability of editors to scrupulously review and proofread so many papers simultaneously has led to the publication of sometimes completely erroneous or even invented results (e.g. the sadly famous *Mehra et al.*, *The Lancet* 2020). As early as 2012, the proliferation of non-reproducible preclinical data was already denounced, prompting complaints from pharmaceutical companies [2]. At the same time, predatory journals emerged, catering more to career needs than to the needs of science. The result has been an economic and human mess, as this model of neoliberal science seems to be completely out of step with the rigors of scientific knowledge [3,4].

COVID-19 has shown us that while health risk is international, the management of this risk remains national. Similarly, while research integrity is an international issue, it is approached very differently around the world. Many universities have instituted educational programs for scientific integrity, primarily for doctoral students and increasingly for younger students. However, the types of training remain very heterogeneous and the adherence of older researchers is not unanimous. A first solution would be to pursue the feminization of positions of authority in research, which is then more often associated with models of cooperation (bottom-up) than with models of dominance (top-down). A second approach would be to encourage cooperation between the basic sciences and the humanities, since scientific truth is also a social construct. Indeed, it is more a question of building a culture of research integrity than of simply issuing deontological norms and laws whose temporality is not that of research integrity. Finally, and this is our greatest challenge, it is time to rethink the evaluation of scientists, by accepting that objectivity is not the prerogative of journal-based metrics, which reflect neither the quality of publications nor the author involvement in the life of his or her academic community, and which are not compatible with the flourishing of radical innovation: this is the sense in which the San Francisco Declaration on Research Assessment (DORA) was signed. The transition to an open science, compatible with the ideal of knowledge as a universal good, is also a cornerstone of this movement of science towards generalized cooperation and research integrity.

The need to develop university research ethics to foster a climate of scientific integrity

The development of university research in medical ethics has, until now, permitted a thorough reflection on the medical relationship and clinical research in the light of the human sciences and through a multidisciplinary approach. It is time for this reflection to be extended to the field of research integrity: indeed, ethical reflection in research can no longer be satisfied with the opinion of committees, since institutional research misconduct reports are always suspect of impartiality [5]. Since scientific research is international and legal norms are specific to each country, the development of an ethical perspective at the university level is elementary in order to resolve specific situations of scientific misconduct. To this end, investments and creation of academic positions will be necessary. This research, based on a collaborative approach, will lead to a true pedagogy of integrity, aiming to give more meaning to science. Indeed,

there is no research that has meaning without teaching, and no scientific truth that has value without ethics.

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