

INTRODUCTION

Bioethics has become an important part of everyday life, not just including preclinical and clinical research, but also regular treatment of our patients. Still, there are numerous issues that we need to resolve each and every day, frequently going far beyond basic principles of autonomy, beneficence, nonmaleficence, or justice. This edited collection aims to challenge some critical cornerstones of today's contemporary bioethical concerns and interests.

The strong impression that bioethics, in spite of its normative quality, should take account of empirical data has been broadly acknowledged with cultural and social realities that are now more and more involved. To go further, it is clear that analytical methodologies of traditional bioethics could significantly advance by the use of empirical data regarding the intrinsic variety of human populations. In this context, we need to consider the technological revolution, nowadays reaching a whole new level. Fast changes that are not necessarily always positive, can lead to unavoidable discussions over posthumanism and transhumanism. Living in an increasingly technical world, do we need to redefine what is human? Well, we need to admit that all humans are merely mortals and death is an inevitable occurrence. In the world of artificial intelligence, biomedical technologies are facilitating the circumstances around natural death, primarily by sustaining human lives, thus making us more human after all.

If we go back to the basics, we know that in everyday clinical practice or research on humans, healthcare providers and investigators must be up to date with the current developments in bioethics. We can agree that,

considering the utmost standards of keeping everyone's wellbeing, an informed consent still represents an ultimate anchor, always fastening the relationship between the doctor and their patient. And following all innovative technological advances, it is absolutely essential to adopt new multimedia communication strategies to further enhance comprehension of treatment-related or clinical trial-related information among patients and/or research participants. In this way, we need to be very careful considering prenatal genetic testing and screening, then gene and cell therapy including treatment of rare diseases, as well as the everlasting question regarding optional or mandatory vaccinations, for example against the human papillomavirus (HPV).

In everyday clinical practice, we are still struggling with bioethical challenges regarding chronic pain management, especially taking into account that pain may, not so uncommonly, last for months and years, and sometimes because of inadequate treatment. Pain is deeply subjective and should be recognized in our patients, and with a high bioethical sense, all the barriers to good chronic pain management should be surmounted. To continue, a specific and still controversial problem lies in the current medicalization of cannabis. Many argue that it is outdated and ultimately unethical to continue supporting the traditionally accepted position that there are no legitimate medical applications for cannabis, further suggesting that the use of cannabis should be addressed in a manner that avoids bias, presumption, or implicit judgment. On the other hand, the ethical implications of performance enhancing substances can still bring many substantiated and justified antidoping arguments.

Finally, it is important to underline that without educational and legislative components, bioethics as it stands today would simply not be complete. In that way, although we know that medicine-related bioethical issues are well defined, and many of those were adequately addressed, still there is an increasing necessity for guidelines in dental ethics in order to point at the ethical responsibility of everyone working in the dental practice towards patients, each other, as well as toward actions in dental research. Likewise, the role of ethics committees in medical faculties lay in providing the basic principles of professional ethics to healthcare providers, as well as in defining codes of conduct for all faculty employees, but also in providing opinions on controversial ethical issues

that are of importance for conducting scientific, medical and public health research in healthcare institutions.

This edited collection, by tackling all these mentioned bioethical issues, will bring further views and concepts in the field, leading us to a better understanding of contemporary bioethics. I would like to express my deep gratitude to all the authors, reviewers, and to Trivent Publishing for providing unreserved support and help.

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