

Quality & finality: characteristics of Brazilian bioethics

Dora Porto

Abstract

This paper considers the 25 years of publication of *Revista Bioética*. In addition to outlining the current status of the journal, it will discuss the criteria currently used for measuring the quality of scientific publications, considering the specific nature of this field of study and research, and particularly theoretical aspects focused on the Brazilian reality. As a transdisciplinary field, bioethics permeates several areas of knowledge, encompassing the Biomedical Sciences, Law, Philosophy and Social Sciences in order to respond to conflicts and impasses related to life and health. As a result, the consolidation of Bioethics in Brazil should be considered a gradual process, which covers both professional training in a broad and narrow sense, as well as its insertion as a transversal discipline in Health and Law degrees and related areas that can benefit from bioethical reflection.

Keywords: Bioethics-Interdisciplinary communication-Teaching. Interdisciplinary research-Information. Total quality management-Communication.

Resumo

Qualidade & finalidade: características da bioética brasileira

Este trabalho remete aos 25 anos de publicação da *Revista Bioética*. Além de traçar em linhas gerais a situação atual do periódico, pretende discutir os critérios atualmente adotados para mensurar a qualidade das publicações científicas, considerando a especificidade deste campo de estudo e pesquisa e, particularmente, as vertentes teóricas voltadas ao contexto brasileiro. Como campo transdisciplinar, a bioética perpassa várias áreas do conhecimento, abrangendo ciências biomédicas, direito, filosofia e ciências sociais no intuito de responder aos conflitos e impasses relacionados à vida e à saúde. Em decorrência, a consolidação da bioética no país deve ser encarada como processo paulatino, que abrange tanto a formação profissional *lato* e *stricto sensu* quanto sua inserção como disciplina transversal nas graduações da saúde e direito, bem como nas áreas afins que possam se beneficiar com a reflexão bioética.

Palavras-chave: Bioética-Comunicação interdisciplinar-Ensino. Pesquisa interdisciplinar-Informação. Gestão da qualidade total-Comunicação.

Resumen

Calidad & finalidad: características de la bioética brasileña

Este trabajo remite a los 25 años de publicación de la *Revista Bioética*. Además de trazar en líneas generales la situación actual de la revista, pretende discutir los criterios actualmente adoptados para medir la calidad de las publicaciones científicas, considerando la especificidad de este campo de estudio e investigación y, particularmente, las vertientes teóricas abocadas al contexto brasileño. Como campo transdisciplinario, la bioética atraviesa diferentes áreas del conocimiento, abarcando a las Ciencias Biomédicas, el Derecho, la Filosofía y las Ciencias Sociales, con el fin de responder a los conflictos e impasses relacionados con la vida y la salud. En consecuencia, la consolidación de la bioética en el país debe ser encarada como un proceso paulatino, que abarca tanto la formación profesional *lato* y *stricto sensu* como su inserción como disciplina transversal en las carreras de grado del área de la Salud y del Derecho, así como en las áreas afines que puedan beneficiarse con la reflexión bioética.

Palabras clave: Bioética-Comunicación interdisciplinaria-Enseñanza. Investigación interdisciplinaria-Información. Gestión de la calidad total-Comunicación.

Doutora doraporto@gmail.com – Conselho Federal de Medicina, Brasília/DF, Brasil.

Correspondência

SQS 204, bloco G, apt. 205 CEP 70234-070. Brasília/DF, Brasil.

A autora é editora científica do periódico.

The social perspective and environmental dimension of bioethics was established through its direct correlation with the area of health, both in terms of the themes discussed and the role of the professions and specialties that use the tool. However, the multifaceted characteristics of the knowledge constructed within the range of the subject, notably produced through its disciplinary interface, reflect on science and technology and its impact on societies, morals and the ways of life of populations.

Bioethics can be said to be the study of the relationships of power and value judgments that guide choices in the sphere of health and condition behavior and morality in society. In this sense, one cannot speak of “bioethics” in reference to a science or discipline, and we must use the term in the plural, in direct reference to the fact that, as observed in its ethnographic description, bioethical analysis is polysemic, as it is conditioned culturally, temporally and spatially¹.

Pushing Brazilian bioethics forward

Since the bioethical discussion began in Brazil in the early 1990s, scholars and researchers have been able to count on the support of a publication to spread their ideas. *Revista Bioética* (Bioethics Magazine) is an ongoing project of the Conselho Federal de Medicina (Federal Council of Medicine - CFM) and is intended to encourage the ethical training of health professionals and to improve clinical practice in a variety of medical specialties. Its first issue was published in 1993 by Sérgio Ibiapina Ferreira Costa, its first editor, and the journal celebrated its 25th anniversary in 2017, consolidating its pioneering role as the only Brazilian bioethics publication to be indexed in international platforms. Currently, the journal has been accepted by ten databases (annex).

The recognition and trust that authors, referees and *ad hoc* collaborators place in *Revista Bioética*, as well as that of undergraduate and graduate academic institutions, has grown year by year. If in 2007 the number of papers submitted for evaluation remained small, by 2013 more than a hundred articles were being received and edited every year, demonstrating that the publication is considered the best quality journal in the field of bioethics in Brazil. Since 2009, when all the previous issues of the magazine were made available online in Portuguese, the journal's website has received more than one million hits.

Today articles cover current discussions related to the ethical aspects of the practice of medicine,

involving issues related to the doctor-patient relationship and the organization of health teams, as well as the advantages, problems and obstacles of treatment strategies at different levels of care. They also cover the ethical and social impact of the technological innovations used in health, issues related to the termination of life and palliative care, as well as the knowledge and application of guidelines aimed at regulating the exercise of the medical profession, among other relevant topics.

Studies of ethics involving humans are also a constant presence in the issues of the journal, as well as issues involving the use of animals for study and experiments. The discussion extends to the social aspect of bioethics, with articles that analyze various problems that affect the health of people and populations, such as age, gender, poverty, difficulty in accessing services, the judicialization of health, suicide and abortion, among others.

To expand the debate around its articles, the journal is published in its entirety in Portuguese, Spanish and English on the CFM site and the index pages of the Scientific Electronic Library Online (SciELO), Directory Open Access Journals (Doaj), Red de Revistas Científicas de América Latina y el Caribe, España y Portugal (Redalyc) and *Latindex*, as well as the Biblioteca Virtual em Saúde (the Virtual Health Library) (BVS) of the Brazilian government. Publication in three languages promotes the wide dissemination of the discussions in the journal, stimulating the exchange of ideas between scholars, who now have a periodical that brings together the key discussions on bioethical topics, especially those dealing with the Brazilian and Latin American reality. The aim of increasing visibility by publishing in three languages is not limited to stimulating the exchange of ideas but is also intended to consolidate bioethics as a field of knowledge.

As part of *Revista Bioética's* institutional commitment to the ethical training of health professionals, the journal is distributed to teachers and students of post-graduate courses in bioethics throughout Brazil. The libraries of university institutions registered with the Ministry of Education also receive copies for consultation.

To further refine the strategy of disseminating bioethics, 4,500 copies of the journal have been issued to teachers registered on our website, who agreed to use them in their classrooms when teaching Bioethics and Medical Ethics at undergraduate level and in 46 courses in medicine and other health areas. These courses take place in teaching institutions throughout the country, in the

states of Pará, Pernambuco, Piauí, Rio de Janeiro, Rio Grande do Sul, Paraná, Mato Grosso, Bahia, São Paulo, Minas Gerais, Santa Catarina, Goiás and the Distrito Federal. This distribution strategy, combined with their professional training process, allows students to deepen their reflection and knowledge about ethical issues and the dilemmas it involves, favoring the conscious and committed exercise of clinical medicine, as required by the Sistema Único de Saúde (the Unified Health System - SUS).

The advantage of the distribution of printed copies of *Revista Bioética* to undergraduate medical professors and other educators in the area of health is not limited to the didactic use of the material by students enrolled in disciplines conducted by registered teachers. There has been an increase in the number of articles sent by students under the supervision of their professors, demonstrating that the interest aroused by the topics discussed in the articles has stimulated the academic production of scientific works. The reading of the journal therefore not only brings students closer to bioethical themes and discussion, but also stimulates their reflections and encourages them to express their own ideas.

From this increase in the number of papers received from students it is possible to draw at least two basic conclusions: 1) the students' reading and discussion of published articles effectively stimulates ethical reflection and induces the creation of other academic works, which will form part of the research training of such medical students, which is an essential activity in the educational practice and should add to their professional expertise; 2) the strategy of distributing the printed copies has achieved its goal of disseminating the journal and disseminating the issues addressed, increasing the visibility of *Revista Bioética* among health professionals, including the medical profession.

It should be emphasized that, since it is planned to carry out this process on an ongoing basis, in the coming years a significant number of professionals from the area will discover the journal during their undergraduate studies and come to consider it an important vehicle for scientific information on the main ethical issues involved in professional practice. This didactic proposal is the main strategy behind consolidating the recognition of the journal.

Impact factor: a universal panacea

The Impact Factor (IF) is a bibliometric index representing the quotient of the number of times

articles published in a scientific journal in a given period were cited by other indexed journals in the subsequent year. These data come from databases that catalog scientific literature, with that of the Institute for Scientific Information (ISI)² one of the most used for this purpose.

Developed in the 1960s based on the newly created area of scientometrics², the IF has gradually become recognized as the main form of measuring the quality of scientific journals, even influencing the admission of professors to US universities. In Brazil, the index was initially used informally by the Conselho Nacional de Desenvolvimento Científico e Tecnológico (the National Council for Scientific and Technological Development - CNPq) and was later adopted by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (the Coordination of Improvement of Higher Education Personnel - Capes) as a parameter to classify postgraduate courses². For those who sought academic recognition through this exogenous evaluation standard, the IF became the fundamental criterion.

Despite its almost unanimous recognition, the indicator has stirred up much controversy. Many researchers consider that the IF form of measurement tends to self-refer and focus on the academic production of developed countries. They view it as an indicator that privileges some areas of knowledge and gives higher scores to some formats of articles, without truly demonstrating the quality of the works:

Is believing in the quality of scientific publications based on their prestige just a bureaucratic necessity of the system of the scientific "ego"? After all, quality is often associated with a high Impact Factor, which is based on simply counting the average number of times an article in a particular journal are cited, and impact factors are important for researchers to identify the importance of publications which they include in their resumes. They need to do this, of course, because the ego-based system is reinforced by the generalized, almost universal system of using citations (usually the impact factor) to evaluate journals, articles, people, funding proposals, research groups, institutions, and even countries³.

The critique of the indiscriminate use of the IF to define the ranking of researchers and institutions came to be treated ironically, as a letter to Nature from a member of the Department of Biology of the University of Leeds in the UK showed by pointing out that authors with surnames whose initial letters begin with the first letters of the alphabet are more likely to be cited than those whose surnames begin

with the last letters, as references often adopt the criterion of listing articles based on the surnames of the authors in alphabetical order⁴. As it is an index developed to indicate quantitative standards, a number of researchers from a variety of areas refused to recognize it as effectively capable of demonstrating the quality of scientific production:

There are those who think that they are standing in front of the egg of Columbus and use these as the sole evaluation criteria of a scientific project and establish that a scientific article only has value if it is published in a magazine with a high impact factor. On the other hand, there are those who believe that the adoption of the hierarchy of scientific journals and the number of citations of scientific publications when judging projects, research productivity grants, and the evaluation of postgraduate courses is another of the many forms of colonialism cultural⁵.

The idea that adopting this index reflects uncritical submission to foreign measurement models is not unreasonable. Countries that invest in science and produce technology are the same nations that developed the production of knowledge through dissemination via academic societies. Spanning all areas, from geography to physics, the scientific societies of the nineteenth century, aimed at stimulating knowledge, responded to the need to produce the knowledge of mercantilist colonialism and were the foundation of the later construction of knowledge dissemination². This process allowed them to define the rules and dictate them to other groups (scholars, institutions, nations) who only then began to use the same mechanisms to disseminate the knowledge they produced.

In this way, the action originated from the desire for territorial appropriation, which emerged from the “discovery” of the New World, and gradually became a scenario of colonial domination and cultural subordination by the imposition of rules that reproduced the interests and benefit only of the dominators. With specific regard to scientific publication in bioethics, the indiscriminate adoption of the IF to evaluate the quality of journals results, at the very least, in little recognition of the progress of this field in Brazil and Latin America⁶.

The adoption of this criterion as the only indicator capable of measuring the quality of a journal indicates a fundamental issue to be considered: what exactly is meant by “quality”? If even the World Health Organization recognizes the polysemy of the term, with regard to the definition of quality of life^{7,8}, can scientific publications,

comparing the study of such different societies, values and health systems, all be subject to the same quality standards? Could it be that in this way we would be decreeing the death of quality, instead of seeking it as the ultimate goal of our reflections?

Counter-hegemonic visibility

In order to give visibility to Brazilian scientific production, SciELO was created in 1997 by the São Paulo State Research Support Foundation, in partnership with the Latin American and Caribbean Center for Health Science Information (Bireme) and with support from the CNPq. It is a library of Brazilian scientific publications that has played an important role in the dissemination of Brazilian academic production. Until its emergence, only 22 scientific magazines from Brazil were indexed among the 6,000 titles of the ISI.

The concomitant dissemination of these journals by the SciELO library and the arrival of significant new titles in Brazilian scientific production have exponentially increased their visibility. An example of such importance is that the IF of the five Brazilian journals indexed in the ISI has increased 132.7%, after being included in SciELO for two years⁹.

The fact that regional databases, geared to Latin America, the Caribbean, Portugal, Spain and South Africa, began to organize themselves internally and to establish networks to ensure access to regional journals did not go unnoticed by international publishers. Maintaining these online libraries can be costly, however, and in 2012 the CNPq stated that it was experiencing economic difficulties that threatened its continued participation in the project¹⁰. The lack of recognition by the CNPq of the fundamental value of the initiative and the absence of effective support for its continuity threatened the library, and put at risk the dissemination of Brazilian scientific production.

Perhaps the impact of this lack of recognition and support on the part of the Brazilian government's institutions of educational promotion was a factor in leading SciELO to adopt new perspectives. Beginning in 2014, the Brazilian library and the Thomson Reuters intellectual and scientific property division agreed to integrate the listing into the Web of Knowledge, the most comprehensive international scientific information database maintained by Reuters¹¹. Although this agreement has furthered the continuity of the project and added to the visibility of the SciELO collection among researchers from all over the world, it has also led to changes in the

requirements for the acceptance and maintenance of journals in indexed collections.

Described as necessary for the internationalization of the information published in the SciELO Brazil collection, some of these determinations, such as the conversion of the online fascicles to the XML format, are designed to systematize data. They also allow their bibliometric use and comparison to generate information on access to journals and the quantity of citations of articles, in line with existing measurement systems. However, other requirements, such as the need to publish in English and the form of license required to reproduce articles (which allows their commercial use), seem to relate to the assumption of coloniality imposed on the production, dissemination and use of knowledge of developing countries¹².

This finding reinforces the idea that even though it is important to align the forms of measuring the production of scientific knowledge – to make comparisons in the global sphere and to verify changes in local processes of knowledge production, including its growth and increased depth – it is also essential to maintain indigenous classification, dissemination and measurement processes as much as possible. These processes must be linked to the demands of the reality to which they belong, thus contributing to the development of native science, the autonomy of researchers and the emancipation of institutions:

Scientific tradition demands time, and a nation like Brazil where scientific activity is recent and postgraduate qualifications have only recently begun to establish themselves (...) if it gives up its scientific independence by following the route of imitation, instead of building its own developmental history, it will be condemned to eternal underdevelopment¹³.

Measuring bioethics

The strong criticism of the adoption of the IF as a single parameter to evaluate the *quality* of scientific production, exemplified earlier, lead one to believe that this goal cannot be achieved by indicators. As is clear from the work of researchers dedicated to studying the subject, the IF mainly reflects how developed countries and their institutions, journals and researchers, who communicate primarily in English, know and quote each other's work, imposing a peripheral status on the rest of the world. All knowledge not produced in English remains unseen or not understood, going unnoticed or, at best, is taken as secondary.

In addition to the cultural and ethical issues involved in the use of IF as a criterion for measuring the quality of scientific production, other minor factors need to be considered. These variables can also influence the quantity of citations received by articles and journals, affecting their position in the scientific ranking. Among the *several factors that must be taken into account when interpreting the IF value of a given periodical and using it in evaluations of scientists and institutions*¹⁴, there are at least three aspects that need to be carefully considered: 1) the type and universality of knowledge produced in the area; 2) the number of journals indexed in the same area of knowledge; and 3) the average periodicity of the area of knowledge and the average number of articles published in each area².

Type and universality of knowledge

It is well known that articles in the biomedical area, especially those presenting clinical research results, tend to be considered more important than those produced in social areas, which unlike drugs trials will hardly result in products to be taken to market. Knowing what health professionals think about a particular medication, equipment or procedure, as bioethics seeks to identify, for example, is not the same as testing and validating therapeutic proposals. Thus, the possibility of profiting from scientific discoveries directly influences the value attributed to the area of science that generated the knowledge in question, focusing on the financing of studies and on the way in which researchers and institutions are classified.

The importance of the type of knowledge that an area can produce is related to the degree of generalization that can be obtained by studies. Inorganic chemistry fully exemplifies this characteristic, for it is the same in any part of the world. Additions to the periodic table or proof of the properties of already discovered elements can be made by academics at any time and anywhere on the planet. The possibility of generalizing the knowledge and the probability of replicating it is almost absolute.

The possibility of generalizing biological knowledge is also considerable, although in this case impositions of the geographic, physical and social environment directly influence the formation of biomes and the balance of species in each. Knowledge of areas such as medicine, which is based on the human substrate but needs to consider age, ethnicity, social, environmental and gender specificities as elements that may circumscribe the possibility of

generalization, follow the same path. The challenge of medicine is precisely this: to work with absolute regularities – life and death – that must be interpreted in the light of very specific singularities.

Given their wide focus, knowledge from the humanities, law, philosophy and social sciences is characterized by being timelier and mediated by its own factors. The law varies according to the moralities that guide society. At the same time, it has been largely inherited from religious norms, which give it its generality, as it is anchored mainly in the consolidation of property and in the prohibition of killing (which can only be done by state authorities or by religion itself, in cases where the two represent the same power). Despite this, the area establishes the system that defines crime and punishment from the perspective of the society that adopts it, reflecting the morality in force in that context.

Philosophy also seeks regularities in the interpretations of morality to define right and wrong in human behavior. It intends to indicate the path of ethics, virtue and happiness, attributes that often overlap in philosophical argumentation. Perhaps because it is the earliest formal area of knowledge and thus is identified “simply” as wisdom, the presuppositions, theoretical principles and values discussed by philosophy are intended to be universal and timeless, although in practice they constantly reveal a condition of relational interpretation, derived from the conjuncture and worldview of those who formulated them.

The social sciences also detect patterns of behavior of individuals, groups, segments and populations, but both sociology and anthropology accept, in general, that such regularities cannot be generalized either temporally or spatially. The rigor of methodological application indicates that cultural patterns should not be attributed to all persons who (at least apparently) experience the same situation in different places and circumstances.

Thus, it can be seen that the knowledge produced in these areas is marked by a strong temporal, spatial and especially cultural bias. In this branch of knowledge there is no absolute knowledge, unflinching notions or pretension to be eternal. Knowledge about people and their relationships in the world is constantly changing, conditioned by history, mediated by technology and driven or restricted by the power of social actors. And it is in this field in which human relations are continuously described that bioethics is immersed, an heir to the humanities and a direct descendant of the life sciences.

As the possibility of generalization is directly related to the probability of using (and quoting) a study, it is impossible to compare different areas using the same methods. As a result, methodologies designed to verify the speed of dissemination of a specific type of information may not be useful in measuring the diffusion of another form of knowledge. This is an aspect that features strongly in bioethical literature, which brings together procedures and techniques of health and medicine, legal norms and laws, methods of research and analysis of social sciences and concepts from philosophy to explain reality and propose responses to conflicts related to life and death.

It is important to remember, however, that this difference between areas is even greater when it comes to the production of interdisciplinary knowledge. By consolidating knowledge from different sources, interdisciplinary is in essence complex and requires more than simple reproduction of formal knowledge, implying adjustment, complementarity and contextualization. Therefore, defining the impact factor as the sole or main criterion of the journalistic quality of bioethics disregards what kind of knowledge should be addressed in each context and how this knowledge is constructed.

Quantity of indexed publications

Other minor aspects are also directly related to the IF of a given periodical. Among these is the necessity to consider the size of the scientific community that might discuss the studies of the area. New areas such as bioethics, whose process of professional training is still limited, do not have enough academics and researchers to carry out and evaluate a large number of studies. As a consequence, the scientific journals in these areas will have fewer published works and longer intervals between publications. Therefore, in absolute terms, they will be less likely to be cited than areas which publish more work.

In any part of the world, medicine represents a large number of professionals. In Brazil alone, the forecast is that in 2020, 32,000 professionals will be trained in public and private institutions¹⁵. Even without precise data on the subject, it is likely that any medical specialty trains more professionals at post-graduate level than all the entrants into bioethics courses, both *sensu stricto* and *sensu lato*. This statement can easily be justified by comparing the number of specialties, institutions, faculties and courses of medicine and bioethics. Thus, there are more doctors than bioethicists and there are more medical journals than bioethics publications.

If the impact of a journal is measured by the average number of citations of its articles in other journals, medical areas will therefore achieve greater visibility and more positive evaluations, since they will have more indexed journals in which they can publish authors who in turn tend to favor the work of their peers. This effect becomes even more noticeable when there is only one indexed journal in an area of study in a given country, as is the case of bioethics. In such situations the possibility of being cited is dramatically reduced. The type of knowledge produced in an area and the degree of potential generalization also make a difference, and can increase the bias caused by the use of a *quantitative* formula to measure *quality* even further.

The gap arising from these circumstances, explained here by a simple logical process, increases further between distinct areas, and becomes even wider when it comes to interdisciplinary production. Although interdisciplinary is a current trend in the production of knowledge, without a sufficient critical mass to expand reflection into wider circles there is a risk of “preaching in the wilderness” due to a lack of interlocutors capable of sharing knowledge. This is the current reality in the field of bioethics, which, roughly speaking, is unlikely to have more than 3,000 trained professionals in all its postgraduate courses.

With specific regard to bioethics, it should be remembered that added to the small number of professionals qualified to work with this area of knowledge is the fact that one cannot speak of the field in the singular, or as synonymous with medical ethics or clinical bioethics¹, which remain its hegemonic meanings. If we consider the expanded range of the field, which incorporates notions of human rights and brings together several areas of knowledge, as proposed by the Universal Declaration on Bioethics and Human Rights,¹⁶ we will see that the knowledge is particularized and that the number of scholars who can discuss specific aspects of different ethical conflicts is further reduced.

Another still more restricted aspect of the use of this quantitative parameter concerns the process of inflating IF through self-citation, defined as the number of times an indexed journal makes direct mention of the articles it publishes. While in certain circumstances auto-citation is inevitable, especially when there is only one indexed journal from a certain area in a given country, when intentionally induced it is considered an abject and fraudulent practice. When conspicuous, self-citation can be penalized by the suspension of the publication from the Impact Factor of the journal in the *Journal*

Citation Reports, as occurred in 2013 with some Brazilian medical journals^{15,17}.

Frequency, quantity and size of articles

Another slightly less important aspect which still manages to influence the measurement of impact, concerns the characteristics required for indexing publications from each area, which employ parameters to define the frequency, quantity and size of the articles. Although the aim here is to seek greater uniformity in the basic requirements for scientific communication between areas, the intrinsic characteristics of each such area end up imposing their own patterns on scientific production.

In terms of the frequency of publication of journals, a significant difference can be noted between publications in the humanities and biomedical areas. Whereas in the former half-yearly publication is admissible, quarterly is the minimum acceptable frequency in the medical and biological areas, and even smaller intervals are expected from the best periodicals. The amount of work in each volume is also quite different. Good law, philosophy and social science journals can publish 18 articles a year over the two issues of each volume. In the area of health, fewer than 60 articles per year can be published, more than three times the amount in other areas.

Frequency and quantity are obviously related to the size of the articles in each area. In the area of human study and research works are usually extensive and can reach a considerable number of words and characters. Work from medical specialties such as biology or chemistry, meanwhile, can be quite succinct, although they include many illustrations, images, graphs and spreadsheets, which represent significant aspects of the work.

These differences have – obviously – consequences for the total amount of papers published in each area and the visibility of journals. It is not hard to see that more frequently published scientific works increase the possibilities for visibility in an area or theme, adding to its prestige, increasing the chance of being cited. Although the criteria for measuring impact are weighted based on these differences, and are systematized by the number of published issues and articles by issue, common sense dictates that something which makes more noise tends to be heard more, even if it is not actually listened to.

It should also be considered that the quantity and size of manuscripts, as well as their specificity, influence the degree of difficulty in obtaining qualified opinions. In more generalized areas it

is easier to find judges, as chemical elements or physical properties tend to reproduce uniformly in any part of the world, under the same circumstances. From Oxford to Bombay there are therefore hundreds of researchers capable of evaluating an article. In the areas of the humanities, however, it is almost impossible to reproduce these circumstances absolutely in different places. Behavior, feelings, ideas and values differ between individuals, groups, segments and populations. History, economics, and culture shape these variables and make generalizations impossible. The ease or difficulty of finding suitable evaluators to review manuscripts submitted to a periodical also affects the editorial process and interferes in the impact factor.

Finally, purpose

In summary, the parameters cited as elements that negatively influence the definition of IF as a measure of the quality of some types of journals are: the use of quantitative criteria to express quality; restricting evaluation to a criterion that reinforces the dependent status of indigenous knowledge; disregarding the importance of the number of indexed journals in the area; and overlooking the influence of the type of article, the area of knowledge and its respective scope. Even considering the importance of these aspects, we must finally turn to the main criterion of editorial quality, which relates to, but goes beyond every journal: the *purpose* of publication. Understanding who or what a journal aims to “serve” is essential to understanding what kind of criteria one should adopt to measure quality.

In the case of *Revista Bioética*, the objective is to foster the interdisciplinary and plural discussion of themes related to bioethics and medical ethics, aimed at academic training and the constant improvement of health professionals¹⁸. The mission of the journal has been supported by the CFM, which understands the importance of this knowledge for all involved in health. This editorial initiative eliminates the difficulty of funding which most Brazilian journals experience, which is even more striking in the field of bioethics where support from any institution or company is impossible due to the potential conflicts of interest it may cause in terms of subjects or authors. Unlike many other specialties, bioethics cannot be sponsored by pharmaceutical corporations or the health equipment industry.

The objective of *Revista Bioética* responds to constitutional demand. Health was defined as a right

of citizenship in the legal foundations of Brazil¹⁹, and was formally established by Law 8.080/1990, which provided for the *promotion, protection and recovery of health and the organization and functioning of the services*²⁰ of the SUS. To enable the implementation of this law and train professionals capable of working in the SUS, in 2014 the Ministry of Education established the National Curricular Guidelines for the undergraduate course in Medicine²¹. Among other requirements, the resolution specified that professional education should:

- *Promote healthy lifestyles, reconciling the needs of both their clients/patients and those of their community, acting as an agent of social transformation; (...)*
- *Include ethical and humanistic dimensions, developing student-oriented attitudes and values for citizenship”; [and]*
- *Promote integration and interdisciplinarity in line with the axis of curriculum development, seeking to integrate the biological, psychological, social and environmental dimensions*²¹.

Among the skills and abilities required of trainees, the following stand out: *health professionals, within their professional scope, should be able to develop actions for the prevention, promotion, protection and rehabilitation of health, both individually and collectively. Each professional must ensure that their work is carried out in an integrated and continuous manner with the other parts of the health system. Professionals should perform their services to the highest standards of quality and ethical/bioethical principles, considering the responsibility of health care does not end with the technical act, but rather with the resolution of the health problem, both individually and collectively*²².

Considering the mission of the journal and its direct relationship with the health demands of the Brazilian state, it is clear that IF is not an adequate parameter for evaluating the quality of the scientific production of *Revista Bioética* or other publications in this field, at least at the present time. As it can only measure the speed of diffusion of information, without reflecting the quality of production, at most the IF can express the projection of a particular periodical or author in a scenario largely circumscribed to developed countries, with their specific characteristics and problems. Although poverty in these countries is the same as that faced by the populations of developing nations, health issues are tempered by social, economic, cultural, and legal variables that make coping strategies different.

It is therefore important to emphasize that, in accordance with the SUS guidelines, the specifications for medical training and the conceptual proposals of Brazilian bioethics, the objective of *Revista Bioética* is to contribute to the ethical and humanistic training and education of health professionals and, in particular, the medical profession. Distributed to students and teachers, the journal is today the main reference in this field in Brazil, stimulating important discussions, such as those related to the Family Health Strategy, the termination of life, palliative care and the education process itself in ethics and bioethics in various courses in the area of health. In this way, the journal consolidates its role as a knowledge tool, aimed at training Brazilian professionals and all those who work in and for health in the country.

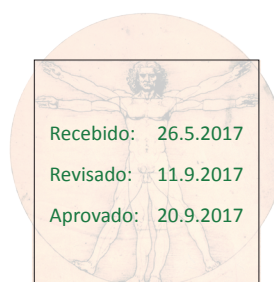
To bring this reflection to a close, it should be emphasized that today, when the strength of our young democracy is being tested and it is hoped that the current crisis will rid our society of its ills, such as cronyism, nepotism, corruption and impunity, ethical reflection is more essential than ever. Studying history, assessing the ethical substratum of the reasons that condition moral judgments, and defining public policies will be an essential part of any measures taken to rebuild Brazil, restore confidence in its dilapidated national institutions, and replace citizens' self-esteem. This long-term educational mission, undertaken with determination and rigor by *Revista Bioética*, can only be measured by indicators adapted to the Brazilian reality, capable of reflecting the achievement of equity and respect for citizenship that all of us desire for the country.

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Annex

Table 1. Databases in which *Revista Bioética* is indexed

Literatura Latino-Americana e do Caribe em Ciências da Saúde (Lilacs);
Latindex;
Periódica: Índice de Revistas Latinoamericanas en Ciencias;
Directory of Open Access Journals (Doaj);
Sumários de Revistas Brasileiras;
Scientific Electronic Library Online (SciELO);
EBSCOhost Research Databases;
Directory of Research Journals Indexing (DRJI);
ReadCube;
Red de Revistas Científicas de América Latina y el Caribe, España y Portugal (Redalyc).