

Truth in medical literature

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Abstract

Various characteristics influence the publication of scientific articles, including the quality of the content, its drafting, the journal's preferred topic, and the current needs, according to health advances or issues. However, other aspects such as the type of research results, the authors' recognition and editorial preferences mark the decision to reject or accept a manuscript; these are known as publication bias. Recognizing these biases allows teachers, researchers and students to maintain motivation and clinical judgement for presenting relevant academic proposals, and maintain a critical analysis of knowledge. (*Acta Med Colomb* 2021; 46. DOI: <https://doi.org/10.36104/amc.2021.1859>).

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Over the last few years, the number of scientific publications has increased parallel to the speed of access to the information on the web, and the existence of new databases and electronic journals which emerge in response to the demand created by globalization. This has both positive and negative consequences for the scientific world and the health sector in particular, because although there is greater access to information and, in turn, greater evidence, this does not always reflect true and precise data, which must be judged correctly by the public (1). First, people need to be aware that “what is published is not always true” and, at the same time, that “what is not published is not always false or worthless,” as several points must be considered before a manuscript is accepted and published in a scientific journal at any given time (1, 2). In general, there are three key aspects:

1. The type of manuscript, topic addressed and quality of the manuscript.
2. The authors of the manuscript and their affiliation.
3. The journal in which it is published and the journal's editors.

Although, ideally, any paper submitted for publication should be evaluated and accepted for its content, there are underlying aspects involved in the decision which give equal importance to form; that is, what accompanies the content. This includes things like the language used, the recognition of the publishing authors, the affiliation of the authors with certain institutions or associations, industry sponsorships, the provenance of the authors and, in some cases, the ability to pay (for certain journals which request payment for publication) (3). The opinion

of the editorial group also comes into play, an opinion which in some situations may be guided not only by the academic content but also by the recognition of the authors who submit the manuscripts or the journal's own needs. All of these are what are known as scientific publication biases, either publication biases or editorial biases (2). It would be presumptuous to assert that the latter occurs in all cases, as I am not familiar with the functioning of each journal and its criteria for accepting articles, and there are undoubtedly particular situations affecting decision making in which it is difficult to judge between what is right and wrong, as this depends on the academic, ethical and sociocultural perspective.

It would not be appropriate to assert that a journal is better because it only accepts those articles that have the greatest scientific validity, as the quality or relevance of an article cannot be determined based on this aspect alone. There are studies or narratives which do not have the best level of evidence but are useful because they are the only available information (2, 4). An example of this is the current situation with regard to COVID-19. During the pandemic, there are more publications on this topic, perhaps most of them being reports, descriptive studies or nonrandomized trials which do not have the best level of evidence, but they are absolutely useful for the health situation we are experiencing, in which information is required. This undoubtedly influenced the decision to accept manuscripts on this topic over other articles which may have been pending at many journals, as the current needs justify their priority. This is a publication bias with theoretical, social, practical, and even ethical support,

seen from a beneficence and equity perspective, as it is a relevant topic for the whole world. Something similar may occur with publications which are submitted to local journals, in which articles of national interest and in the country's native language may be accepted (2, 5). However, this is not always a mistake, as long as it is done to benefit the healthcare system, since the description of one's own data is relevant, this often being one of the problems with certain international studies which do not have external validity and are not applicable in our setting (5).

On the other hand, the decision to publish based on positive outcomes, financial incentives, and the prestige of certain authors does discourage the initiative of many professionals who aim to have an impact on health through their opinion and experience and are unfortunately refrained by this commercialization phenomenon applied by some media (6, 7). I mention one particular case from my experience in professional training, in which a paper was first rejected and then accepted after the authors were changed, adding a recognized name, without changing the content of the article. The same thing occurs with affiliations to more recognized institutions, or with simply translating into another language (2). This has led to the mistaken idea of many students that research can only be carried out with certain professors or research groups, often minimizing their own ideas and consequently working on projects which do not motivate them and decrease their ability to question themselves or come up with new proposals. It is a challenge for us as medical specialists and healthcare instructors to change this paradigm, motivate students to propose problems based on their own observations and interest, question themselves in their daily professional practice and optimize their capacity for research, analysis and publication, giving importance to global knowledge and not just that which is limited to a special group. Students who are motivated to conduct research should take ownership of their work, be proactive, take leadership and value their authorship; only then will we be able to create an objective and ethical research culture in the country.

Various institutions have reacted to this situation, creating database registries that allow access to most publications. The World Health Organization (WHO) has created the International Clinical Trials Registry Platform (ICTRP) and proposes the use of Universal Trial Reference

Numbers (UTRNs). Likewise, clinicaltrials.gov belongs to the National Institutes of Health in the United States, offers free access and includes all the methodological aspects of the studies and whether they have concluded, are currently suspended or have open enrollment. Also, www.controlled-trials.com is a meta-registry of controlled clinical trials in Europe, highlighting, among others, the *International Standard Randomised Controlled Trial Number Register* (ISRCTN Register) similar to the *Cochrane Collaboration with the Cochrane Central Register of Controlled Trials* (CENTRAL) (6).

It is appropriate and necessary for each journal and editorial group to have preferences for certain types of articles, since this is what the systematic order is based on, as it would be impossible to cover all topics and populations in a single sector. Publications must be staged or stratified by categories of interest in order to organize knowledge. However, it is important to consider the existing biases and, based on these, for the readers to critically select the information they consider relevant for their daily practice and use the resource appropriately. In this regard, the role we, as physicians, can play is fundamental both in using the evidence in our professional practice as well as alerting our students to be critical readers. For their part, editorial committees and authors should consider the topic represented by each journal in making their selections, along with the needs of the setting in which it is published and, most importantly, the quality of the information that is going to be shared. This makes it more feasible to adapt the research and publications to the individual social situation and culture, providing a real help for the healthcare sector rather than an excuse to address the interests of a few.

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