

## Periodical publishing policy of the science world

The future of publishing mainly depends on working with educated researchers, authors and reviewers. In other words, our policy to improve publishing is based on the education of the researchers, authors and reviewers. Academic progress requires writing an article. The first step of scientific methodology and writing a scientific report or article is to prepare a good research project. At the beginning of all these preparations, the rule **"research is nothing unless it is published"** should also be remembered. **When does research deserve to be published?** The answer to this question is: The project should be well-planned at the first stage, from the beginning. We should use the basic rules that are listed above the starting point of the "Future of Our Periodical Publishing Policy and Our Publishing."

The solid basis and rules of research, the procedures and proper writing of research when completed, the expectations of a periodical editor about the article, and the rules based on which a serious reviewer evaluates the submitted article should be explained to medical scientists when they are students, and should be part of their education. The publishing policy is based on these factors. If young medical students **receive education as the researchers, authors and reviewers of the future, we might be proud of the future of publishing.**

The rules of medical research are rarely taught sufficiently in the faculties of medicine. It is not easily possible to train graduated doctors as researchers, as today's education in faculties of medicine is not based on these concepts. This deficiency should be eliminated first in periodical publishing policy.

In many countries that have fallen behind in science, all doctors educated in cardiology sometimes assist in one or two studies during their specialty period. They are asked to search the literature or record the data, without receiving any training in how to do this. In other words, they are tasked with a kind of simple secretarial duty. People who are not trained and educated on why and how to conduct research, or familiar with the rules of research, will not acquire much information or experience, even if they participate on the research team. Of course, it would be totally unrealistic to ask untrained people to write the study; what they write will be ridiculous.

The laboratory studies regarding fundamental sciences are different from clinical protocols; they are easier to learn and to teach. The required research and editing processes are shorter. The ethics reports are not difficult to obtain. Specific and easily obtained ethics reports are adequate for specific tissue and animal studies. The issue of education starts here during the determination of the publishing policy. The researcher and the advisor

should identify the challenges of the project in advance, start with an easy project, and plan a research that can be finished within the academic period. In many countries, it is very rare in medical schools that research advisors are assigned for research during the educational process in faculties of medicine or even during specialty training. These facts should be addressed in scientific policies during research, which is the basis of publication, in developing countries. A quarter of the scientists around the world are from developing countries; nevertheless, they can produce only 5% of all scientific publications. Monetary resource is not the only challenge in planning the studies at very high levels. Lack of research education plays a very significant role in these countries. In conclusion, the fact that **only 2% of the developing countries have journals in the Science Citation Index** justifies the above-mentioned thoughts.

Medical personnel who have a bachelor's degree or a graduate degree submits and gets rid of their responsibility in a study they are required to conduct. They cannot enjoy doing research, or understand its importance. On the other hand, they will more enthusiastically and consciously conduct the studies in which they take part, and access real information and broaden their horizons, if they are educated. And if they start to work in a research- or education-based medical institution, their entire academic life may end. The researcher should record the information in two separate files at every step. These records include the completed part of the research, the time required to complete the research, the status of materials, and the rate of data loss. The fact that the above-mentioned rules are not taught and implemented at all in the developing countries results in many studies being submitted for publication in a deficient format. These problems may be at least partially avoided by having a requirement that the research leader known or selected by the author has high scientific qualifications. This should be part of every project. The research leader is responsible for the collection, recording and protection of the data. The research leader also coordinates showing the data to the researchers, advisors and authorities of the supportive institution, whenever required. Policy rules should be developed to ensure this coordination in research. The chief responsible/author of the research should have a close relationship with this coordinator. This ensures that the research is conducted within certain limited periods of time, and completed on time.

Until recent decades, the articles in Turkey have finished with a sentence such as "the results of the present study comply with the results of other/foreign studies," which has no relation-



ship to producing a scientific study. An important corrective step made in the twenty-first century is not to start a groundless study such as “let’s search this, collect this information” without any questions to be considered or hypotheses to be tested. This is an ambiguous statistical method. How can research be planned without being based on a real basic information, just to satisfy “**curiosity**”? A large number of case reports, original images and letters to the editor are published from Turkey in the SCI journals; I feel proud and excited when I see a bit worthwhile original study article. If you carefully analyze these articles, you can see that the advisor or chief author of the study was trained in, or educated himself/herself on the basic rules of research. **Our policy should be to make this education ordinary.**

If the beginning of the research is not well-organized, it will be difficult to write this research. Every editor wants to publish a good paper and a quality study: it is the basic criterion. If the study is of high quality, editors do not easily reject a poorly written article; they want to provide any kind of help needed to make the paper suitable for publication. The first question “**Why am I searching**” may be answered. Why? This cannot be the basis of a research project; more precisely, research cannot be initiated due to “**curiosity**.” A study should produce information as the end-result; it should, to some extent, enlighten the reader with facts that were previously unknown using a scientific method. The deficient information can be found through examining basic information. An assumption-hypothesis is developed

to obtain the “missing/required information.” This hypothesis corresponds to the first part of the article: *Introduction*. A study design is determined to test this hypothesis, which corresponds to the *Methods* in the study. This design is used to investigate the correctness of the hypothesis. After the hypothesis is tested, the findings and results are analyzed; this corresponds to the *Findings/results* section. Finally, the results of the analyses are interpreted in terms of the hypothesis, which corresponds to the *Discussion* section in the article.

Let’s explain this using this example: Whether the biventricular pacing increases the coronary blood flow will be tested: This hypothesis is formed since the basic information indicates that coronary blood flow has the possibility to increase using this method; the hypothesis is not formed solely due to curiosity. The aim of the study is to test and prove the hypothesis by measuring the coronary blood flow during pacing. The example above shows that each research study has the goal of proving the hypothesis. A study paper in which these concepts are put in the correct order is very likely to be published.

A lack of education and the financial resources wasted due to uncontrolled use will only continue to create a large debris of research articles in developing countries.

**Bilgin Timuralp**  
**Editor-in-Chief**  
**Eskişehir-Turkey**



Is science still looking at different directions?