

The Symbiotic Relationship between Authors, Medical Journals, Editors and the Peer Review System

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There is a complex relationship between potential authors, especially those with limited experience in submitting manuscripts, medical journals, editors and the reviewers who participate in the peer review system. There is growing pressure on young graduates undertaking PhD and Master programs to publish papers, as the regulations for the completion of these degrees from many universities require papers to be published before the awarding of these degrees. The pressure to publish is nonetheless high, as colleagues proceed through their career pathway, with publications often dictating successful advancement or promotion. This paper highlights this complex relationship and discusses the responsibilities of all stakeholders, both ethically and professionally.

An essential feature of a medical career includes sharing clinical practices and research outcomes with the broader medical community. At a recent symposium, a speaker posed the question “Why do we do research?”. The audience’s consensus opinion was “because we are curious and wish to share what we find”[1]. This may be partly true, but a questioner does not always get an answer representative of the whole truth, especially in a public forum. How many young professionals, at the start of their career, would admit, in public, that they only do research and subsequently share this through publications, only in order to satisfy prerequisites degree specifications? This is undoubtedly the case in many instances, and when it is so, can lead to some unwelcome, if not dangerous consequences.

When publication becomes mandatory, quality often suffers. This lack of quality research is evident

in the many and ever increasing number of medical journals.

Authors, inexperienced or otherwise, have a professional and ethical duty to undertake high-quality research based on sound clinical or laboratory methodology and submit significant and quality manuscripts for publication. Their responsibilities commence long before the writing, submission and eventual publication of a study paper, originating in the planning and execution of the study on which papers will be based. Sound clinical or laboratory methodology should be predicated on a thorough acquisition of knowledge and finishing with complex decision making. Circumvention or nonconformity with standard practices in conducting research or inappropriate management leading to biased results is unacceptable, and their avoidance is the responsibility of all members of a research team and all the authors of a resultant manuscript. Timely and proper statistical tests, power calculations and analyses should be considered early in the study design, to ensure that, as far as possible, conclusions can be effective and, hopefully, efficient. Plagiarism must be deemed as totally insupportable, as is the misrepresentation of data by avoiding “outliers” and outcome measures that do not fit in with a preconceived hypothesis. Falsehood, suppression, and a disingenuous commentary is equivalent to scientific dishonesty, which has a serious detrimental impact on the general research community and possible future clinical recommendations, standards and strategies.

It is imperative that authors give proper attention to the sources quoted in their papers. Concerns re-

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sult from improper citations may have both personal and far-reaching consequences with doubt being levied at the authors academic status, his or her academic honesty and the validity of the study and the resulting conclusions. Accurate referencing will throw out all of these potential questions [2].

It is imperative that authors appreciate what journal editors expect in submitted manuscripts. A central remit of an editor, especially of journals of high standing, is to enhance the status of their journal and a consequence is that they are interested mainly in original high-quality research of significant clinical relevance. They demand manuscripts that are written in clear and concise English. This goes beyond just proper spelling and grammar but instead that manuscripts clearly and effectively communicate the authors' ideas and findings. Finally, all journals must follow a set of publication policies and ethical standards to ensure that the research they publish is of the highest quality.

Medical journals aspire to select, through peer review, papers which communicate scientific evidence of the highest quality. To achieve this end, the peer review and publication process must be objective, systematic, and impartial. Editors, reviewers, authors, researchers, patients, readers, funding agencies, and health policy commissioners, must believe and have a deep conviction that this is so. Without this, a journal's reputations will be diminished. It is therefore incumbent, if not mandatory, that journals describe their policies as clearly and straightforwardly as possible, in order to guarantee the ethical management of participants in the publication procedure.

Each of the above stakeholders has individual and collective responsibilities.

Medical editors or editors in chief as they are sometimes known, are responsible for the trustworthiness of published papers. The dependability of published works can influence professional performance, future patient care and ethics. Editors will make reliable and impartial decisions, selecting or rejecting submitted manuscripts solely on merit. Editors should be unbiased in their choice of reviewers, editorial decisions, or in editorial statements.

By being creative and thoughtful in predicting the future of their speciality they have the opportunity and potential to recognise what authors and readers need and make the most of such a privileged position to benefit the practice and delivery of medicine.

The concern of the peer review process is to identify and suggest for publication, manuscripts that are authoritative and contribute to the advancement of medical practice. In turn, these papers become the foundation for further research and the basis of day-to-day medical practices. It is central to medical research in that it appraises studies for competence, importance, and innovation by experienced experts in a particular field of study. The process is frequently an essential determinant of an author's academic development, and because of the nature of the process, authors' concerns often include long delays in publication. A robust peer review system identifies scientific transgression, plagiarism and irrelevant replication of topics.

It can, however, fall short of ideal when editors or reviewers do not fully appreciate the matters reported and discussed in the submitted manuscript. In such cases, this can result in significant flaws in study design, assessment and discussion, going undetected before publication, with essential and significant errors becoming "published facts".

Notwithstanding its limitations [3], the peer review process is broadly favoured by the medical and scientific community. A relevant, transparent peer review is necessary to assist and expedite ongoing medical science [4].

The role and definition of authorship in medical journals have become progressively complex. Due to modern technology, many studies are conducted by collaboration between colleagues in different parts of the world, a colleague who participated significantly to any part of a project, such as the theory or hypothesis development, data analysis or literature reviewing may be considered to have authorship eligibility. However, the inclusion of ghost authors is objectionable and should be rigorously avoided. The International Committee of Medical Journal Editors (ICMJE) [5] gives revised authorship criteria that should be followed in most cases. Some researchers opine that these guidelines are too strict, but nevertheless acknowledge that they safeguard the understanding that nominated authorship denotes responsibility to the scientific integrity of the paper. Authors have a responsibility to give attention to detail at all levels of his/her research; this fosters scientific thought and analysis and makes for better research. Errors of omission frequently are the cause of a reviewer not accepting a manuscript for publication. Failing to cite a critical or well-known paper may give the impression that authors have not under-

taken an extensive literature review or having inadequate knowledge of their subject. It may even lead a reviewer to consider that the work is, in part, plagiarised.

The responsibility to avoid plagiarism is self-evident. It is one of the most common causes of compromising the academic integrity of the author. Authors referencing all primary sources can avoid this inference. The question of plagiarism is firmly eliminated by proper referencing.

The corresponding *author* takes primary responsibility for any prepublication communication with the *journal* during the manuscript submission and peer review process. This places an uncompromising responsibility on him/her to ensure that all the above issues have been considered and appropriately dealt with, and all authors agree to the final manuscript.

The editorial team of the Journal of Critical Care Medicine are aware of the complex symbiotic relationship between authors, Editors and the peer review system. The particular needs of potential authors, especially those with limited experience in submitting manuscripts, who are not fully conversant or indeed understand the complex issues characteristic of the system have been noted and identified. The JCCM editorial team have taken steps to help these colleagues in having papers of an appropriate standard, accepted and published. The educational nature of a medical journal starts with the authors receiving a report by reviewers.

This is often given even when the manuscript has been rejected. The JCCM wishes to extend this educational quality, and to this end will publish occasional articles detailing the fitting structure and appropriate detail required of papers submitted to high standard international journals such as the JCCM. These articles will be published occasionally under the heading “Spotlight On...”. The first of these papers, “Spotlight on how to Write a Case Report”, will be published in the next issue of JCCM.

■ CONFLICT OF INTEREST

None to declare

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