The Art and Science of Writing a Paper

Editor's Note: Writing a scholarly article (and getting it accepted too) is both 'art' and 'science'. Most reputed journals have a high rejection rate, and extensive editing is required in most of the manuscripts that are accepted. There is no formal training in paper writing during medical schooling, but faculty members of medical colleges are expected to write papers in high impact medical journals for career promotions. Consequently, there is increasing incidence of plagiarism, duplicate publication and fraud in paper-writing. The huge trap of predatory journals is also a challenge for the scientific community. The articles in this series will aim to help and guide the readers in writing articles for medical journals. Simplicity will be the key 'mantra' for this series. I hope that readers will find the series useful; any comments and feedback are welcome. These may be directly communicated to the authors or to the journal office at jiap.nic.in. Comments can also be posted on the relevant thread at www.facebook.com/indianpediatrics.

Why do we Write?

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Whether it is a professional need or a "hobby", it remains a powerful medium of expression of human thoughts and ideas. So is it with scientists and researchers; biomedical scientists being no exceptions. For academic health professionals, scholarship and publication are key activities [1]. Scholarship and publication can be expressed in a variety of ways, not limited to scientific journal articles alone [1].

Writing and publishing scientific work can be a curiosity for some, a necessity for others, or an obsession or a passion for the rest. The reasons are dynamic depending on where one is on their career pathway.

PERCEPTIONS OF A DEBUTANT WRITER

A new entrant into the arena of biomedical research or practice is curious and wants to learn the 'art' of publishing scientific work. Novices need help and guidance to be initiated into scientific publication. Of course, it could carry the price of gift authorship to 'mentors', 'seniors' or 'guides'. But more importantly, seeing one's name in print boosts one's ego, and improves one's acceptability amongst peers and increases one's visibility in the scientific community. Ultimately, for those aspiring for an academic and research career, these are the first steps for career advancement in a ruthless and competitive academic world. The forays into the publishing arena could be in the form of scientific abstracts in conference proceedings, case reports, scientific correspondence, interesting or novel images or chapters in books.

MID-CAREER EXPECTATIONS

The reason why one publishes in their mid-career changes track slightly. Of course one continues to enjoy the 'name and fame' that publishing brings. It may be still important for progress up the academic ladder but the need to please one's 'bosses' may become less compelling. But there are more important reasons than just curiosity or necessity. There is deep desire to contribute to science, and share outcomes of original research with the scientific community. At this stage, one also may be keen to share updated information for appropriate practice to the medical community. One may also wish to play the mentorship role to budding young scientists. By this time one has honed the skills of good scientific writing, and one cannot but help being passionate about writing.

Scientific writing is not only a mode of communication, but also impacts other facets of human development. It helps to process one's thinking and become active learners [2]. For the physician, it also improves one's clinical skills – better clinical notations, structured approach to problem solving, better

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judgment – and teaches one to be more appreciative and accommodative to the suggestions of colleagues.

LATE-CAREER THOUGHTS

For most biomedical scientists, publishing would almost have become an 'addiction' at this stage of their career. One continues enjoying contributing to science and being a mentor to their juniors. But above all, one the greatest desires is to be able to influence practice and policy so that all, but more particularly the marginalized and underprivileged are benefitted by the advances of medical science.

'UNDESIRABLE' REASONS

There are other reasons why one may write. While some of these reasons may be acceptable for popular science but the ethics of it for the advancement of biomedical research is debatable. Serving as "ghost writer" for money is unquestionably not ethical in scientific publication. Similarly writing to promote a product or sell an intervention, or writing with the primary intent of promoting one's self or institution would also be considered undesirable. One should always be wary of falling into this trap with the increasing commercialization within the present day healthcare delivery system.

No doubt that those who publish also flourish in the academic world. But not all are in that race, and for the large majority, publishing can be fun. But writing requires patience and perseverance. As James Hardee said "It is a slow birthing process. But once you get your first one done, it is sort of addictive" [3]. No one is perfect; remember everyone has to sweat through the labor of publication. Many of us, who today may be considered successful because of the plethora of publications against our names, have had multiple rejections during our initial attempts at publication. But the reviewer's comments and criticism have actually improved the quality of one's scientific papers, and one remains ever grateful for their time and effort in improving the quality of the publications. As biomedical scientists, we must publish because the information belongs to all of mankind.

In summary, the reasons for writing a scientific publication can be several, and these may vary with the stage of your career development. If any of the above listed reasons entices someone who is a beginner, do not delay action but be bold enough to give it a shot! The subsequent publications in this series will be a helpful guide for embarking on this journey and also refining the skills.

References

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