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Editorial

Writing and publishing a scientific paper: Facts, Myths and Realities



"I have no special talent. I am only passionately curious."

Albert Einstein

Introduction

Scientific communication and writing forms an integral element of constantly developing and evolving health sciences. Scientific research and writing forms a foundation on which stands the future of mankind and the environment. Being a health care professional, it is our collective responsibility to ensure constant updating of the existing knowledge and imparting any new concept/idea with rest of the medical fraternity. On a day to day basis, many of us tend to become quite satisfied after having delivered the right quality of health care to our dependant clientele. Yes, rightly so. But, how many of us have wondered as to what we have really done for the continuance and enhancement of the existing knowledge which we have acquired as a result of a lot of hard work by our predecessors? It is, indeed, time to introspect on this pertinent and important issue. Many of us, at some point of time, must have felt the need and wish to share our unique experiences with our colleagues in the medical fraternity. It is also true that possibly many such felt needs were never translated into effective scientific communications for various reasons. Of late, there has been a constant palpable pressure on the health care professionals to write and publish scientific papers as a part of mandatory requirement of various universities and medical councils. It may appear like a big challenge to those who are not familiar with scientific publications. On the contrary, we are quite certain that, all of us have the potential to write and publish our research work in various scientific journals. This editorial is aimed at addressing certain important issues concerning scientific writing and publications. We shall also endeavor to unfold and eliminate some of the unfounded myths and fears which may have deterred us from successfully writing and publishing our scientific work.

Do I need publications?

The answer is definitely yes. We all need and must publish at least for the following reasons: a) It gives an opportunity to share our thoughts and ideas with the rest of the scientific community which may prove invaluable in improving our existing and prospective knowledgebase in a particular field; b) It also helps us in being recognized amongst our peers, c) It gives us a sense of fulfillment and achievement besides our day to day and routine commitments towards our clientele, d) It helps in climbing on our carrier graph as the same has been made obligatory by various regulatory and apex bodies of health sciences, e) Last but not the least, we must realize, at this point, that the future of health sciences depends on the collective contributions from all of us, even though, individually it may appear as a minuscule drop in a mighty ocean.

I have not published before, can I publish now?

This is a question which often bothers many of us who have not done any publication so far. As mentioned earlier, we would like to reinforce the fact that all of us have the potential to write a scientific paper and publish the same. It is certain that, at some point of our professional carrier, we must have come across or observed a unique or unusual phenomenon. It is this concept or finding which can be shared and disseminated in the form a scientific writing. What is needed the most is the desire and persistence to do so. Rest of the issues can be suitably modified and addressed. It is not uncommon to harbor only the negative attributes related to the scientific publication process and reasonably justify our non participation for the same. Well, if there are many reasons why we cannot do publications, there are possibly more reasons why the same can be achieved and should be done by us.

Is there any guideline on scientific writing?

There are a number of guidelines available online with many of them being accessible for free download. Authors are

advised to go through a series (I-X) of writing tips available in the Journal of Clinical Epidemiology starting with part I.¹ Another interesting article titled 'How to write articles that get published' written by Dr Jha is worth reading by the beginners.²

How do I plan my study?

The formats for case reports, case series, short communications are rather simple. One can follow journal specific formats for preparing the manuscript. However, if you are planning for an original analytical research (prospective or retrospective) study, then it would be a good idea to consult a biostatistician and plan the study protocol well before you actually start the study.

Which journal should I send my article?

Selection of the journal is very important. There are many ways to find the right journal. One of them is to type the topic in question in PubMed search and take a note of which all journals have published similar case reports or studies. You can select one of such journals for your manuscript. Indian Armed Forces Medical Officers are required to send the manuscript to the Medical Journal Armed Forces India (MJAFI) through the journal website www.mjafi.net. MJAFI accepts submissions from multiple specialties.

Should I submit my article online or as hard copy? How do I submit my manuscript online? How long will it take for the manuscript to get accepted?

Most journals now accept online submissions only. Most journals have their own webpage. Read the instructions to authors for a particular journal, link for which is usually available in the home page itself. The online manuscript submission requires registration of the corresponding author if not already registered. A valid email ID is required for registration of authors. Once registered, one can proceed with manuscript submission through the link 'submit a manuscript'. There are tutorials available for the same in case of difficulty. It is very important to read the instructions to authors of a particular journal before preparing any article for submission to that journal.

Online manuscript management system (OMMS) allows submission of a ready to upload manuscript in a matter of a few minutes thus removing the physical barrier of distance of the journal office from the author. OMMS also allows easy tracking of a submitted manuscript. Another advantage of OMMS is that, as an author, one can directly interact with the editorial team through email. Once logged into the authors account, all correspondences done thereafter will have a proper online record. OMMS helps the editorial team in searching for appropriate reviewer and inviting them quickly. If the reviewers respond in time and give their comments within the stipulated time frame, comments of the first review can be communicated to the authors within 4–6 weeks. The

entire process of giving a final decision can take place within 2–3 months when authors and reviewers are prompt in their response. Besides, the final submission remains in PDF file format in the OMMS which can be downloaded by the authors at any point of time.

What are ethical issues which I need to be aware of as an author?

Plagiarism

Plagiarism is considered as a serious breach of publication ethics and all most all journals including MJAFI consider plagiarism a valid reason for rejection. Verbatim representation of any published, copyrighted material in any form without prior permission of the copyright holder is considered as plagiarism. Most journals including MJAFI evaluate contents of a submitted manuscript for plagiarism through professional plagiarism detection software right at the beginning of submission. A common misconception amongst authors is that, quoting the corresponding reference entitles one to use the phrases/sentences verbatim. Well, this is not true. Authors are supposed to read a reference, understand the topic and write or quote in a suitable place in their own language with a corresponding reference quoted at the designated place in the text. Another, common error done by some authors is that, the text is taken verbatim from place 'A' and reference is given for place 'B'. Please be informed that, with the availability of professional plagiarism detection software, it is very easy to detect plagiarism whichever way an author may try to conceal the same. Different journals have their own yardstick for similarity pattern and report status before processing a manuscript further. It is advisable to write the entire manuscript in one's own language to eliminate the chances of remote possibility of plagiarism.

Other ethical issues

Authors are encouraged to read and follow guidelines given by the International Committee of Medical Journal Editors (ICMJE) available at the links: <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/> and <http://www.icmje.org/recommendations/browse/publishing-and-editorial-issues/> to understand the important ethical issues of scientific publications. Authors are advised not to compromise at all on the ethical issues as the same is commonly viewed very seriously by most of the journals.

Common errors while submitting/uploading a manuscript:

a) Wrong type of article: Before you submit an article to any journal, please check what types of articles are accepted for submission in that particular journal. For example, nowadays many journals do not accept case reports; hence there is no point in sending case report in that particular journal. Similarly, in many journals, review articles are often solicited from

experts in a particular field by invitation. If at all, one wishes to write a review article, in a particular journal without a formal invitation from the editors, it would be a good idea to submit an abstract of the manuscript along with the authors' credentials with a request to that effect to the chief editor of that particular journal.

b) **Wrong format of article:** Follow the instructions to authors of the journal concerned carefully before writing an article. Write the article strictly as per the guidelines to authors.

c) **Incorrect sequence in uploading of files:** This is one of the very common mistakes for which many articles are sent back to the author as pre review revise. It has a tremendous negative impact on the beginners. This mistake can be easily avoided if one follows the instructions carefully during uploading the manuscript.

d) **Citing references wrongly:** Please remember that, many journals have a particular style of citing references in the text. Usually, Vancouver style of quoting references is well accepted by most journals. Also, references are to be cited in chronological order in the text. References need to be relevant and preferably recent. Responsibility for correctness of reference lies entirely with the author. Many a time, authors cite reference from a cross reference without going through the text of the reference. Such a cited reference may not be necessarily correct in all respects. Hence, before citing a reference, please make sure that you have read at least the abstract of the article and also do not quote anything which you have not read yourself. Do not have a blind faith on any reference cited in an article even though it is from a reputed journal. Usually, minor mistakes in writing references in the reference section are taken care of by the journal editorial team.

e) **Images/Figures:** Images provided have poor resolution, are blurred, not annotated clearly and are not supported by suitable legends. Patients' details including names of the institutions need to be concealed for journals which have blinded peer review.

Misconceptions/Myths are not uncommon in scientific writings and publications like many other disciplines. Let us discuss a few common myths and the reality check in the following paragraphs:

Myth # 1: What do I publish? Whatever, topic I choose, there are enough publications in the same field. Hence I do not think there is enough scope in the topic/subject in question.

Reality: There is enough scope for scientific research and publication in every topic/subject one can think of. It is the intricate insight about a subject or a unique component in a subject that matters. This statement can be amply exemplified by the fact that, for a topic like acute appendicitis which has been well known for many decades, there are more than ten thousand articles in the PubMed as on today. On the top of it, new articles are added almost on a daily basis of various aspects of the same entity. What is important is to highlight a lesser known/described facts about the common disease entity which may be clinically relevant. One way of solving this issue is to look for

uncommon/unusual phenomena in a usual clinical entity or vice versa. If we have been able to do that, possibly we have succeeded in selecting an appropriate and relevant topic for our scientific research.

Myth # 2: I am very busy with my profession and I do not have time for publications.

Reality: This is an unfounded excuse to justify having not attempted to write and publish. The reality is, if one wants to take out time, one can do so even in the busiest schedule. All it needs is the determination to do so.

Myth # 3: Those who publish do not work and vice versa.

Reality: This is again a lame excuse. If you are unbiased then you will find plenty of people around you doing their profession equally well besides publishing scientific studies.

Myth # 4: I am working in a small hospital and do not have the necessary infrastructure to do research.

Reality: Necessary infrastructures may be an important requisite for large scale original research, but absence of such an infrastructure should not preclude one to carry out research at a smaller level. For example, one can write a case report highlighting an unusual entity even from a small hospital without much infrastructure.

Myth # 5: I have a lot of good cases and case series with me. I think I can easily write a few case reports whenever I want.

Reality: Many people think like you and the day would have never come for many of them. You have to set a deadline, start and pursue it with utmost sincerity.

Myth # 6: Case reports have no value. I only have few interesting cases with me. What can I do?

Reality: It is a misconception that case reports have no value. Most of the original researches were initially based on findings of case reports and case series. If you think that your case has a definite unusual feature which is clinically relevant, then you should try publishing the same. There are case reports which are cited several times. The basic rule is that, irrespective of the type of the article, as long as the article conveys a new concept or finding it is worth it.

Myth # 7: I do not think any indexed journal will accept my article.

Reality: Do not come to a conclusion before you have attempted the same. Secondly, indexing does not mean only Medline indexing. There are many indexing agencies other than Medline. Visit the journal website and see the journal information to know about the abstracting and indexing information of the journal. Many journals display their acceptance rate on the home page itself. It is always a good idea to go through the journal information including instructions to authors before selecting a journal for article submission. In the worst scenario, the article may get rejected. There is nothing to feel bad about it. Follow the remarks of the reviewer. May be you, yourself would agree about the lacunae within the article. If you think you can address those issues then either you send the same article after suitable modification in the same or a different journal. Knowing, constructive or critical comments of reviewers also help authors in improving their manuscripts.

Myth # 8: This manuscript of mine has been returned/rejected by Journal 'A' and hence I do not think it is worth trying publishing elsewhere.

Reality: One must not give up at the very first instance. It is possible that a particular manuscript may not be suitable for Journal 'A' as deemed by the requirement of the journal and/or by the recommendations of the reviewers. If you are convinced that, the manuscript has a definite learning point in it, then it is worth trying to suitably modify the manuscript after addressing issues raised by the reviewers and resubmit the same either to the same journal (if advised revision) or send it to a different journal. Persistence and perseverance are two vital pre-requisites for being successful in publishing a scientific research/paper.

Myth # 9: It takes a very long time for Journal 'A' to publish the accepted articles in the print copy. Hence it is not worth trying publishing in the journal.

Reality: It is true that many journals have a queue for accepted articles to be made available on the print copy depending on the priority of the concerned journal. By and large, once an article is accepted, many journals would publish it online ahead of print (AOP) within a reasonable time frame pending its publication in the print copy. When an article is published online AOP, a digital object identifier (DOI) number is generated. It is an accepted publication norm that an author can quote online AOP articles with the DOI number as his/her publication or even cite them.

Myth # 10: My article describes a rare case/occurrence. It should be published in a good journal.

Reality: Only rarity of a case may not be a criterion for acceptance of a case report by many journals. Rarity with significant clinical implications may be an ideal combination for considering suitability for publication in any journal.

Common Do's and Dont's:

Do's:

- a) Find a clinically relevant unusual phenomenon/concept in a usual entity or vice versa.
- b) Do a literature search on the same and confirm uniqueness of your study/concept.
- c) Find out which journals have published such reports/studies. Select an appropriate journal based on this knowledge.
- d) Plan your study/manuscript well.
- e) Strictly follow the instructions to author for a particular journal.
- f) Keep ethical issues in mind.
- g) Be crisp and to the point.
- h) Prepare your manuscript in separate files like: Cover page, certificate from authors, Title page, Manuscript without author's details, Legends, Images/photographs/tables etc depending on the journal's requirement.
- i) Keep high resolution images/photographs/graphics with appropriate annotations ready for uploading. Keep the number of images especially color images to absolutely essential ones. Remember, color images/photographs increase cost of printing significantly.

j) Pay particular attention to syntax and grammar. Wrong spellings, sentence structure and grammar tend to exasperate the reviewers.

k) Pay attention to the reference style, photographs/images and legends.

l) Read your manuscript several times before you make it final.

m) Get your manuscript critically reviewed by your colleagues before you upload it.

n) Have perseverance and be persistent.

Dont's:

a) Use unethical means

b) Plagiarize in any form and extent

c) Disclose patient's identity by any means.

d) Loose heart at the beginning if your article is rejected or unfavorable comments are given by reviewers. Have a positive outlook for criticisms and comments by reviewers and improve your manuscript accordingly.

e) Do not submit the manuscript in more than one journal at a time.

Summary and conclusion

Scientific writing and publications are essential component of constant capacity building for medical professionals in any institution or organization. The necessity for scientific writing and publications will surely go up in near future for a variety of reasons explained earlier. It is not uncommon to get discouraged by self or even by colleagues who may portrait the subject of publication as something alien for us. Although there are known hurdles in the entire process of publication, but all such impediments can be suitably addressed provided you, as an author, are determined for the same and have perseverance. At the beginning, it does not really matter much whether you are contemplating publishing a letter to editor or case report or case series or short communication or an original research article. What matters most is the originality and uniqueness of the contents. If your manuscript has original and clinically relevant ideas/concepts, the article is likely to get accepted and cited in future irrespective of the type of the article. Let us not wait for the day when we will have a proper infrastructure and ambience to carry out pure research in our professional capacity. One area, where we see great opportunities is the dissertations/thesis of the post graduate residents. It would not be incorrect to assume that a great deal of hard work goes in preparing most of the dissertations/thesis. Young specialists who have just finished their post graduate studies can easily make an original research paper from their dissertations/thesis without much effort. For those who have not yet published, remember that it will be a unique and joyous experience to have witnessed your manuscript being accepted and then published. Feeling of a truly blissful accomplishment is bound to envelop you when you first get to know that your articles/publications have been cited by researchers elsewhere. We sincerely hope that our young professional colleagues get motivated after reading this editorial. Wish you all Happy Publishing.

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