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Successful publishing of research: An editor's view

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ABSTRACT

Authors often are frustrated by responses they receive from editors when their manuscripts are rejected and do not understand from an editor's view what is needed to successfully publish their work. Editors receive sometimes several manuscripts a day and have to develop methods to screen out the ones that are likely not to pass the review process. They also want papers to be able to be written in such a way that it is clear why the studies of which they report are important and novel and worth publishing. Thus, advice is given in the following article that begins with how to choose an appropriate journal, to the surprising importance of a title and ends with how one should conclude the manuscript.

1. Writing the manuscript

Submitting a manuscript for publication can be a daunting task for a junior scientist, although changes in technology over the last 30 years have revolutionized the publishing industry (Buchsbaum, 2018). I began writing and submitting manuscripts describing my scientific projects early on in my career, the first of which took two years to write with my mentor returning it multiple times for changes and at a time when there were no computer word programs to make the process easier, but rather typewriters and “white-out". Shortly afterwards I teamed up with a colleague (Henry Nasrallah) to develop a new journal sponsored by Elsevier that we named *Schizophrenia Research.* Having edited that for 29 years and now taking on the role of Editor-in-Chief of *Psychiatry Research*, I have developed a feeling for what makes a good publication that the scientific public would most likely take notice of and want to read. It only takes an experienced editor a short amount of time, without reading every word of a manuscript to know whether the paper will ultimately fail, with revision could likely make it, or is so outstanding that it is worth facilitating quickly. The following describes, in order of completion by an author, how to be that person whose manuscript will fall into the last two categories, at least from my view having been an editor for several years. This review, itself, is dedicated to Sherry Buchsbaum to honor her career contributions to the field of scientific publishing in psychiatry, having been the managing editor of *Schizophrenia Bulletin* for many years and then moving on to *Psychiatry Research*, where she was known by all in the field as a model editorial manager aiding authors in every aspect of the publication process. I also dedicate the following to Monte Buchsbaum, who was one of my early mentors in research, and who along with Fred Goodwin in the 1970s founded the journal *Psychiatry Research.* Monte was devoted to this journal and to his international cadre of colleagues from almost all continents and countries world-wide, always putting in his best efforts to bring their papers to publication. It is a challenge to follow in his footsteps.

Step #1: Selecting the appropriate journal.

Early on in one's career, in order to move up the academic ladder of seniority, the *Impact Factor* of journals in which one publishes assumes some importance. Promotion committees comment on whether an applicant has published mostly in the so called first tier journals or not. The first tier describes a journal one tries for with a high impact scientifically. A second tier journal is where one might then go when rejected from the first, or when not even trying for the first, knowing that the impact of one's finding is small. Thus, an honest assessment of how important a result is to other people is important and sometimes takes an independent colleague who had no part in the study to make that assessment, as authors tend to be so involved in their work at times that its importance unfortunately becomes magnified in their eyes and it remains difficult to see how others perceive it.

When selecting a journal, knowing who the actual audience is that would be interested in the finding described is important. For example, a psychological testing experiment of college students may be best appreciated by psychologists and thus published in a specific psychology research specialty journal, unless it has wider implications for disease and basic neuroscience or sociological principles, and then a more widely read general journal could be tried. If there is any doubt, a quick email to the editor might help to see if she/he might be interested in evaluating the paper. One could also look through recent issues of the journal to see if similar types of papers are published there.

After the decision is made, it helps to read the instructions to

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authors carefully and follow them, particularly looking for the exact reference style. If the wrong style is used, editors sometimes assume the paper was initially written for another journal, rejected and then sent on to this one as second best. No editor wants to be second best. It is important to decide in addition what type of publication your results merit. For example, a full manuscript implies definitive results, a brief report, preliminary results, and a letter to the editor, something that is either too small in number of subjects, a minor secondary analysis of previously published data or a follow-up of a small aspect of something else.

Upon submission of a paper online, the website will usually ask for suggested reviewers. It is always the editor's most difficult tasks to find appropriate and willing reviewers. Thus, if it appears that the author has chosen reasonable potential reviewers, they will likely be used. Reviewers that are unreasonable all come from the authors institution, suspected to be the authors friends or close colleagues, or at the other end of the spectrum are so senior and internationally known that they rarely have time to review manuscripts anymore. There is nothing more annoying to an editor to find out, when a potential review responds, that he/she would have a conflict of interest because of a friendship with the author.

Currently authors may be given the option of publishing in a free access format or the traditional limited access unless the reader pays a fee to the commercial publisher. Free access costs a considerable amount of money that needs to be set aside by institutions from grants or other research funds and that needs to be considered before checking this option. It is rare that publishers will let bills go unpaid and authors and universities may be embarrassed by frequent unpaid bills once a manuscript is published. However, currently many European countries and funding agencies are moving toward requiring that research is published with free access and thus in the future one may see considerable change in journal production as a result of this mandate.

Step #2: Choosing an appropriate title.

Authors may not realize this, but the first representation that an editor sees for their paper is the title. Choosing a title is quite important because a judgment is made immediately based on the title as to whether the topic is appropriate for the journal and whether the readers of the journal will want to go further to see what is in the content of the actual paper. Titles that are long, with grammatical errors, or with technical terms that most readers are likely not to understand will detract from the importance of the paper and may lead to the rejection of the paper without further review. For example, a title such as "*The DEPIT Trial-of prescribing behavior changes: Prescribing pattern changes resulting from a complex ward-based interventions*" will make an editor want to reject a paper, while the same paper entitled *"A trial to reduce inappropriate antipsychotic polypharmacy in hospitalized patients"* would be much better received. Or a title such as "*The VBT gene SNP in chronic disorganization schizophrenia males having negative symptoms, and poor outcomes from West Mongolia"* is not conveying the importance of the work and would not be of interest to people outside of one country. A better title would be: "*A gene polymorphism lowering the rate of dopamine metabolism is a candidate risk allele for some schizophrenia.*"

Step #3: Authorship.

By definition a co-author is someone who contributed to the ideas, formulation of the project, and/or carried out the work and discussed its interpretation. Co-authors should have read the manuscript and agreed to its final form. All others, if they aided the co-authors in some way, could be acknowledged. The corresponding author is the person who takes responsibility for the paper's contents and revisions (usually first or last author). Often, the corresponding author feels it is necessary to include people who are his/her supervisors, technicians whose jobs are to assist in some of the work, or even colleagues who they need for friendship and support outside the current project. These people should be responsible enough to take their names off of the manuscript and let the author know that an acknowledgement is enough. However, often times they do not do this because they could use another manuscript listed on their resumes. This is unfortunately all too common, but journals recognize the problem and at least are letting each author know the responsibilities of authors and have them sign statements agreeing with the paper, the data and conclusions. Each author must take responsibility for what is written in the paper and know that the experiments outlined within occurred and are interpreted properly. Too often, co-authors, do not take this responsibility and do not know enough about the work, or even in some cases have even written opposing statements appearing in other publications. Guidelines for authorship developed by The International Committee of Medical Journal Editors can be found on the website: http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html.

Step #4: Acknowledgments.

Always acknowledge source of funding and institution where the authors work and where the project was performed.

Step #5: Composing a good abstract.

The abstract is read by the editor to determine whether to take the paper further through the review process. It is rare that the editor will read the entire manuscript in detail at this initial stage. Thus, the abstract must be clear, consist of a background, methods, results and conclusions subsections, generally be no longer than 250 words, in excellent language of the journal, include numbers of subjects, include *P* values, and cautiously interpret the study's importance. The use of any technical terms must also be clearly and simply defined.

Step #6: Writing the introduction or background.

The introduction should be short and concise, with nothing irrelevant to the hypothesis being tested included, as this would be a distraction. The authors should state why this topic is important, what literature/evidence has led to this work, while at the same time not just referencing the authors' own work. If a comprehensive review is not given to save words that is okay, but then either one or two examples should be preceded by "e.g.", or if a reference is used, then one should say "referenced by" and give the citation. Some young investigators only reference things after year 2008, when the landmark paper in the field actually was published before 2000. This phenomenon should be avoided. When referencing a fact, reference the most important original pioneering finding for that fact and do not assume it is your own work unless you were the pioneer or you wrote a review and then, again, write: "reviewed in…"

It is in this section that the authors should clearly state the hypothesis and how it was planned to be pursued, perhaps also predicted what will be found. Often manuscripts will be written with no hypothesis and the reader is then left to assume that the authors chose to just randomly analyze multiple different variables until finding a significant p value.

Step #7: Organizing a clear methods section.

An **e**xample of how to begin a methods section for a report of a human subjects' study might be:

"40 patients with schizophrenia (20 males, mean age 30 ± 5; 20 females, mean age 32 ± 4) and 30 controls (20 males, mean age 30 ± 3 and 10 females, mean age 31 ± 4) were recruited…"

Mention informed consent and where and what institutional review board approved the study.

Describe the power to find what you predict. The smaller the effect size expected, the larger the N.

Genetics studies need very large N's…even if brain imaging data or post-mortem data are used.

A demographic table if human volunteers used should be divided into males and females and numbers of subjects given. Laboratory and technical information can be explained in simple figures.

The methods section may appear better organized if subtitles are used such as: 1. Overall design; 2. Subjects; 3. Clinical evaluations, 4. Laboratory tests, 5. Statistical analyses, etc.

Sample size in genetic association studies is an important issue and in psychiatric genetics, most sample sizes are too small to be able to obtain definitive results (Hong and Park, 2012). False positives are likely in these cases, particularly since there is bias toward publication of positive results and by chance with small samples sizes; this is likely to occur (Sullivan, 2007).

Step #8: Outlining the results.

When subcategories are used in the methods section, or even if they are not, it makes most sense to order the appearance of results parallel to the order of items in the methods section. Results should be presented clearly and simply and not interpreted in this section. Just the facts should be given with the statistical evidence. Statistical trends should not be mentioned as something that shows a difference. Figures should not repeat data that are in tables. Some editors discourage depicting data by bar graphs, as these hide the variance present in the individual data points. It is advised to display data as scattergrams of all data points instead. The reader can then see if there is an outlier for example that has skewed the data. If the N's are too large to do this, a simple table with means and standard deviations would suffice.

Step #9: Composing a good discussion:

In most instances, the discussion should begin with a statement summarizing what the study showed. Then this is followed by a statement about what other studies showed and contrasting them with the current one. The third, statement should then discuss the significance of the finding(s), followed by the limitations of the current study. It is important to not overstate the importance of any finding and make sure not to make as statement that “this is the first…” as often times a reader may rather think he/she was first. The discussion is then concluded with speculation of the authors opinions about what the significance of the study is, and what future studies should follow to clarify the findings further. Thus, it is important to be concise, short and simple, as no one has time to read much of it!

2. Ethical issues

Publishing manuscripts in a journal such as *Psychiatry Research* involves not only showing the importance of a scientific project in a clear, concise and logical manner, but it involves ethical issues There are many types of ethical issues, from the way human beings are approached for research or animals are handled in the laboratory, to the fabrication or falsification of data in the written publications of experimental results. Authorship and disclosures of anything that can be seen as biasing the results have been discussed above. The way in which human subjects are treated is carefully scrutinized. Editors are wary of published data that may have been collected in an unethical manner. Rules vary among countries and when data from one country are used by researchers from another country, researchers and editors of the resulting publications need to be sensitive to the local rules of the country from which the data come. One specific international example of how researchers have not been sensitive to human subjects issues deals with the collection of biological specimens for research from countries, particularly those with unique indigenous populations, without informing appropriate official authorities. In this case, DNA samples were taken from Indonesian Bajau Sea Nomads (Ilardo et al., 2018). This in turn became quite controversial because the agreement under which the researchers in Denmark were working may have lacked local Indonesian Review Board approval for their studies (Rochmyaningish, 2018).

Another problem deals with the ease the internet has provided for unintentional plagiarism to occur. Recently it has become apparent that many authors, particularly those publishing in English language journals when they are not native speakers, copy and paste relevant passages from other papers in electronic form or from internet searches, not realizing that this is considered plagiarism. What is much less common is the ambitious investigator who yields to fraudulent practices to make figures prove their hypotheses, when in fact the data are either screened and points removed that do not comply or there are not even any data in the rare instance. If reviewers or editors suspect this, the editor does have a responsibility to the field to let the appropriate disciplinary bodies know. Another problem found many times by reviewers, are papers published in other journals and still sent as duplicate publications to another. Perhaps the author needs a certain number of papers for a promotion and this is one way that is tempting to prove this. Fraud is ultimately uncovered. Examples of the most famous scientific cases of fraud may be found on the following website: https://www.onlineuniversities.com/blog/2012/02/the-10-greatest-cases-of-fraud-in-university-research/

3. Peer reviewing

The standards for scientific publications include a voluntary peer review process for all science before final publication. This is an important process that should not be overlooked. It is hoped that researchers, once they understand how to successfully publish good papers will then make themselves available as a peer reviewer to provide constructive criticism to help colleagues publish their findings in an appropriate fashion, in this way continuing to promote progress in the field.

4. Summary

In summary, each aspect of a manuscript from the title on to the text, must be clear, in good appropriate language and be enticing to the relevant readers. If the highest ethical and scientific standards are practiced and the above suggestions are followed, it is more likely than not that a manuscript will ultimately be published.

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