Clarity in medical writing

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ABSTRACT

Clarity is the most significant aspect of medical writing. This article explains the importance of clarity and offers practical advice for writing clearly at the language and sentence levels. Specifically, writers are advised to employ precise language, avoid unnecessary jargon, eliminate unnecessary repetition, and revise verbose phrases.

Key words: writing, medical writing, medical manuscript, periodicals as topic

Lack of clarity is a problem that plagues researchers attempting to publish their work in medical journals. A study of why editors and peer reviewers reject medical manuscripts points to issues such as underdeveloped methods sections and poorly interpreted findings as common reasons for rejection.[1] Although these explanations may point to flaws in a study's content, they also reveal the importance of clarity in medical manuscripts. A methods section may be unconvincing not because the methods were faulty, but because they were insufficiently or ineffectively described. Likewise, findings may seem poorly interpreted not because the author lacked evidence or misapplied logic but because that evidence or logic was not clearly articulated. While strong writing may not allow a poor study to be published, unclear or confusing writing may very well cause a study to be rejected.

Clarity is the most significant aspect of good scientific writing.[2,3] Several excellent guides to writing in the sciences provide step-by-step advice for writing each section of a research paper.[2, 4–9] However, the goal of this article is not to describe the medical manuscript or to provide instructions for its production. Rather, I aim to offer practical strategies for writing with clarity at the level of language and the level of the sentence, which can be applied to any writing project in the medical field.

WRITING AT THE LEVEL OF LANGUAGE

Writing clearly begins with choosing precise language—that is, choosing words that convey the author's intended meaning. In writing—and particularly in scientific writing—using imprecise language often creates confusion. Even small changes in word choice may have repercussions for your audience. After all, to say two variables are "correlated" is not the same as saying that one variable "causes" the other, or even that the two are "related."

Choosing precise language often happens during the revision process. Once a manuscript is drafted, a good practice is to go through and examine the language carefully. If you are unsure of the meaning of a word, look it up in a dictionary rather than simply using it because it "seems right" or because a thesaurus suggested it. Also, be aware that certain

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words have connotations, or emotional associations, in addition to their denotations, or formal definitions. For instance, "suffering from" implies an emotional state, whereas "diagnosed with" indicates a medical process.

Writing with clarity entails not only choosing precise language, but also avoiding unnecessary jargon, the inclusion of which one reviewer called "a prevalent and insidious problem."[10] I define jargon as highly specialized and technical language specific to members of a profession or field. Despite its bad reputation, jargon does not always impede clarity. In fact, a term may fall under the definition of jargon and still communicate your ideas clearly, depending on your meaning and your audience. To determine whether your use of a specialized term is effective, ask yourself the following questions:

1. Would a simpler word suffice? Or, is this term the most precise option? If a more common word will clearly communicate your meaning, there is likely no need to complicate your writing unnecessarily by using jargon. If, however, a term is highly technical and specialized, but it is the most precise word available, it may be the best choice.

2. Will my audience understand this term? If you are writing for a highly specialized publication read primarily by those in your immediate research area, you may choose to draw upon your field's shared vocabulary. If you believe your audience may not recognize a specialized term, however, you may choose to use a more accessible word. If the specialized term is truly the most precise, accurate option, be sure to include a definition for a non-specialist audience. (In fact, a definition may be necessary regardless of the audience in order to ensure that your meaning is as clear as possible.

WRITING AT THE LEVEL OF THE SENTENCE

Clarity can also be enhanced at the level of the phrase or sentence through "concision," the practice of conveying an idea with a minimal number of words. However, brevity does not necessarily equate to concision. As an illustration, in the study of editors and

peer reviewers mentioned earlier, several respondents suggested that short methods sections could cause manuscripts to be rejected.[1] Rather than sacrificing necessary details or explanations, writing concisely entails eliminating unnecessary repetition and avoiding "wordy," or verbose, phrases.

Repetition, like jargon, is sometimes necessary and, in some cases, may even foster a sense of coherence. If you are using a term like pulmonary, readers may become confused if you suddenly switch to a different term, like cardiopulmonary. However, unnecessary repetition, like unnecessary jargon, can annoy readers and even impede clarity. Eliminating repetition is not difficult. Simply replace the redundant language with appropriate alternatives. For instance, if you use a particular word or phrase repeatedly, you can use your computer's "find" function (Control/Command-F) to locate each usage. You can then evaluate the effectiveness of each instance and replace the word or phrase with other language. However, errors in precision can occur when writers settle for less precise synonyms. A thesaurus can be an invaluable tool as long as precision is maintained. Alternatively, if you notice redundant language in consecutive sentences or throughout a paragraph, those sentences often can be combined, restructured, or rephrased.

Clarity also can be enhanced by avoiding "wordy," or verbose, phrases. Some problematic phrases are very common, and writers may not even notice that their ideas could be communicated in more direct, straightforward language. For example, the phrase "due to the fact that" can be expressed more concisely as "because." Or, one might replace "it is important to" with "must." Several authors have compiled lists of such phrases and substitutions.[11, 12] Using fewer words will help the audience to focus on the ideas rather than wade through unnecessary language that might bog down their reading.

CONCLUSION: REVISING FOR CLARITY

Clarity can be difficult to achieve in a first draft, simply because this part of the writing process involves so much invention and discovery. Trying to write perfectly while focusing on putting words on the

page can actually cause writers to stall and lose their trains of thought, leading to incomplete ideas that further impede clarity.

For these reasons, writers should focus heavily on clarity during the revision process. Take the time to examine your language usage. Have you chosen precise words that convey your meaning clearly? Would simpler terms suffice? Will a reader require further definitions or explanations? Think, too, about conciseness. Have you repeated language unnecessarily? Are there wordy sentences or phrases that could be rewritten? Challenge yourself to write a sentence in as few words as possible, even if you decide to use a longer version in the final draft. Then, read the manuscript sentence-by-sentence, beginning at the end, to check for clarity and concision. Employing such techniques during revision will help you to explain your ideas carefully. Most importantly, doing so will help you to communicate your research clearly and enhance your contributions to your field.

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