

Effective writing and publishing scientific papers, part VIII: references

1. What you should know

Science moves forward by building on the research work of others, so it is important to appropriately cite previous work to acknowledge your sources, underpin your hypothesis, show that you are familiar with the relevant field, and give credit to the work of others, as well as avoid being charged with plagiarism. If you see your scientific paper as the spider in a large web, correct citations will allow readers to get an overview of the main work done previously within the field (the web). References can direct readers to supporting or diverging views and also to sources that may add relevant data to your work.

Organizing references can be time consuming. Most researchers work with reference management software, allowing them to organize, store, and download references of any type (scientific papers, books, web pages, and other publication types) at all times. Most of these programs support automatic importing of references from databases such as PubMed. Any references added to a citation manager can be easily inserted into the text of the paper. Word processor plug-ins enable automatic formatting of in-text citations and references lists using any of the many journal reference styles available from the citation manager software. This impacts on the way the citation is displayed in the main text (e.g., numbered or author-date), but also determines how the reference list itself will be shown (e.g., numbered, alphabetically, three authors, all authors, and so on). When pieces of text are moved around during revisions, the reference management software will automatically reorder the references. Papers that have been accepted but not yet published can be cited as "in press."

Since 2000, publications have been assigned digital object identifiers (DOIs) through CrossRef, a cooperative effort among publishers to enable consistent cross-publisher citation linking. The DOI for a document is permanent, whereas its location or URL may change. The DOIs are searchable through www.crossref.org.

2. What you should do

Choose your reference management program and always use it for references throughout your career. Find the output style of the intended journal in the author's instructions and choose that style when automatically formatting citations. If you cannot find the output style, choose the Vancouver style (recommended by the International Committee of Medical Journal Editors) or American Psychological Association style, which are nowadays the most common reference styles in biomedical research.

Make sure to acknowledge a source each time you describe a fact derived from that source. Importantly, go back to the original source. Authors quite often rely on references provided by other authors when citing papers, or they may use references to scientific work that described a fact (e.g., in the introduction), which was actually proved in a different paper. If you use a direct quotation, put the sentence in quotation marks. However, be very cautious about adaptations of full sentences. Take the information and use your own words, paraphrase, and summarize to avoid the charge of plagiarism. Do not aim to cite widely established facts; e.g., everyone knows that the sun rises every day. Never use footnotes; this is sometimes done in books, but not in biomedical journal articles.

Insert references that are relevant to the research question in the introduction and those that are relevant to the interpretation of the results in the discussion, although there may be overlap. Although you need to provide the readers with the underlying context and cite references to important work, some journals limit the number of references you can include (reviews and meta-analyses excepted). If you have several references that back up a specific statement, choose the one you think is most appropriate. Consider choosing the reference which (1) provides the highest level of evidence, (2) is open-access available, (3) has been most recently published, or (4) has been published in the journal to which you are submitting your manuscript. The latter will demonstrate to editors that you know and read their journal (which you should anyway, if you want to successfully publish with them).

Carefully check the reference list before submitting until you are sure that it is 100% correct. Reference software can be helpful, but it does not think for you and may make mistakes during formatting. Do realize that if your reference list is not up to high standards, editors and reviewers may also doubt the core of your paper or analysis.

Checklist for citing and references

- Use reference management software at all times.
- Find the requested output style in the author instructions of the target journal and adhere to it 100%.
- Always cite the original source behind a statement.
- Use your own words to describe facts derived from references, never copy paste sentences.
- If you need to choose among several references, select one by considering the level of evidence, open-access, year of publication, and published in the target journal.
- Meticulously check the final reference list for errors.

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