

Types & Quality of Evidence

Professional Literature consists mainly of Peer-Reviewed Journals and Articles, Review Articles, Systematic Reviews, and Literature Reviews. Some of these publications are specific to careers, but others exist across all fields. This document should help clarify the differences between the types of evidence used to support positions within papers or assignments.

Review Articles

- Typically discuss the pros and cons of previously conducted research.
- It may also express an Author's opinion of newly published research.
- These articles are great for understanding the history of previously conducted research on topics or previously conducted techniques in laboratory work, surgery, and so forth.

Peer –Reviewed

- Journals requiring the peer-review process are considered to be of good quality.
- This means every article submitted for publication is reviewed by panels of folks, who are familiar with the area and who can provide good and relative feedback, selected by the journal editor for that subject matter.
- Articles published in peer-reviewed sources are highly valued, if cited in a paper or discussion post.
- Publication within a peer-reviewed journal does not necessarily mean the article contains original research. **Note:** Usually the abstract will indicate if the research is original or not. To be sure, however, checking the methods section is always a good idea.

Literature Review

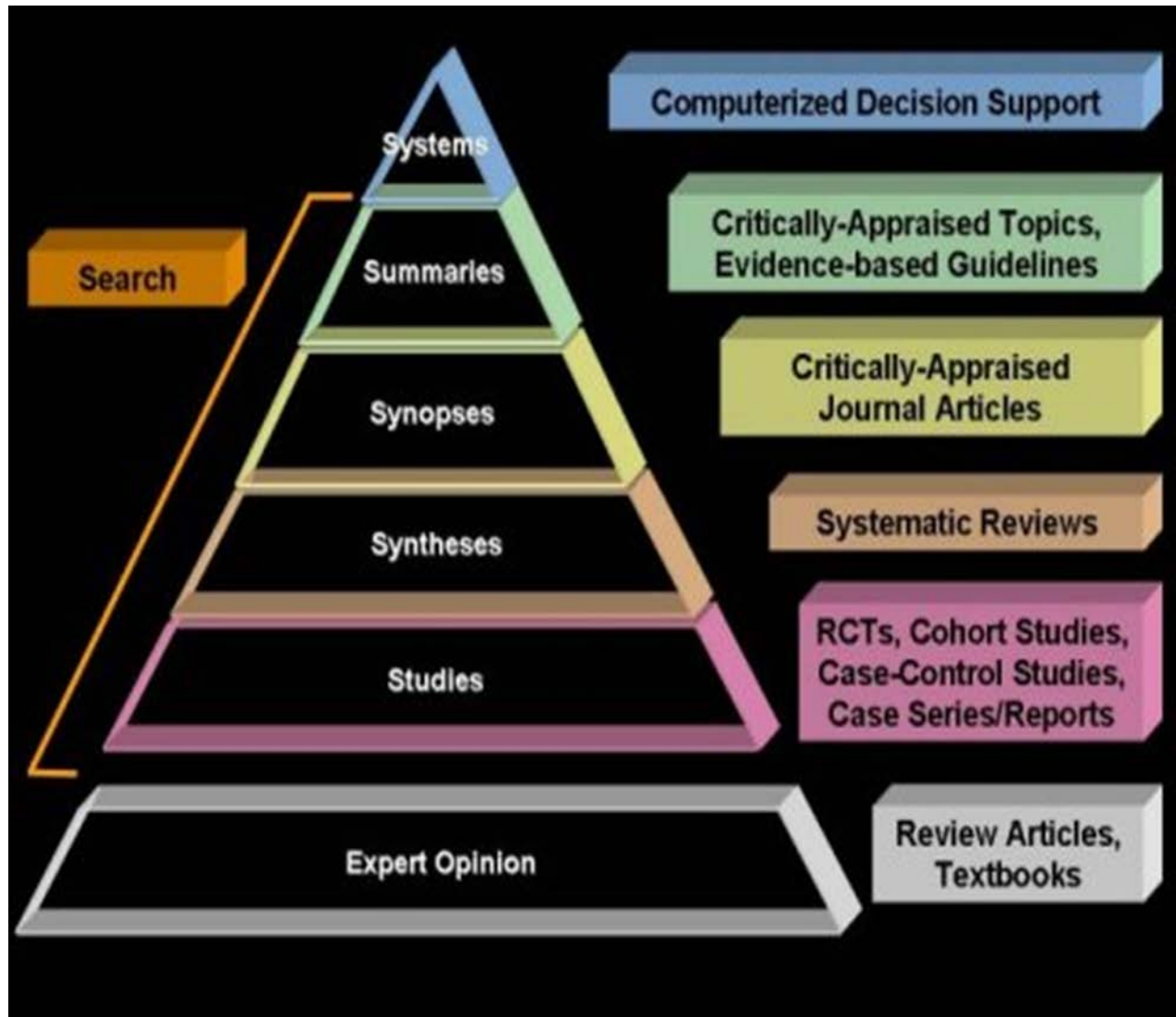
- For most fields, these are not published, but you can look at the bibliography to see the literature consulted for the publication.
- These are conducted to become more familiar with current publications in a potential research area or to gain knowledge on a subject for presentations or giving lectures.
- Multiple literature searches are done to complete a thorough literature review.
- Unless doing historical overviews, publications within the past 3-5 years are usually considered relevant. **Note:** Check with your instructor or advisor, if you are not sure.

Systematic Review

- Process used to minimize bias and ensure thoroughness by reviewing work according to pre-determined criteria in a deliberate manner.
- Clinical Trials will sometimes include a systematic review to help determine criteria for the study and they may or may not include meta-analyses.

5S-Pyramid

Below is a picture of the 5S Pyramid. The 5S Pyramid provides a great visual for explaining the value of literature. While all the literature listed below may not apply to our specific field, it is a great way to compare the various types of information available to us.



Websites

- Rather than citing a book chapter or the encyclopedia, many people now reference websites or blogs.
- All websites are providing the agency or business or organization's spin on the situation. This introduces the concept of bias. Government publications contain the least amount of bias.

- If citing a website or a publication available on a website, be sure to check out the publication date and check the frequency of updates to the website.

Ways to Spot Good (Credible) Sources

- Look for Journals that are respected in your field or know across many fields. One example is the New England Journal of Medicine.
- The Peer-Review process and if a Journal requires this process for articles submitted for publication.
- Study Design, Sample Size, Methodology, and Results are explained well and the appropriate tests are used to support study objectives.
- Articles cite primary sources with original research rather than citing secondary or tertiary sources.

Weak (Suspect) Sources

- Only topical information or summary information is available.
- Articles available from the source provide citations to secondary articles or other articles from less credible journals or sources.
- Authors express opinions, but the supporting evidence is minimal or not credible.
- The review process of the publication is not explained.
- When discussing the article among peers and with instructors, the name is unfamiliar to them.

Why do I care? Or better yet, why should I care?

- Publications establish a paper trail, which help define your reputation as a professional and within your field.
- One mistake found in a published document can lead to questions concerning your past work, present work, and your standing within the professional field.
- Being aware of the good journals in your field and popular journals within similar fields is valuable for many reasons. An example of awareness this brings would be your ability to keep up with trends.