

The Basis for My Positions

I base my positions on public health and science issues on sound scientific research published in peer-reviewed, reputable scientific journals. Below are my suggestions about how to find such information. You can obtain assistance with this at the Bowling Green State University Library by contacting the Reference Desk either in person or remotely by calling, texting, emailing, or chatting. Here is a link to the library webpage that provides information about this:

<https://www.bgsu.edu/library/ask-us.html>

If you visit the library in person, you can use any of the library resources including the professional scholarly databases which are extremely effective for finding the peer-reviewed scientific research studies published in reputable journals that form the basis for my positions. You can also access many of those journals and obtain copies of articles. If you encounter any difficulty, I strongly encourage you to ask staff at the Reference Desk for assistance.

Which science journals are reputable can be determined using the recommendations found at these websites:

<https://guides.lib.uw.edu/research/faq/scholarly>

<https://guides.lib.uw.edu/research/reputable>

<http://health.library.emory.edu/writing-publishing/quality-indicators/journal-credibility.html>

Look for the journal in the Scopus list of indexed journals. This alone doesn't establish that the journal is reputable, but it is evidence in favor of that:

<https://www.scopus.com/sources.uri?zone=TopNavBar&origin=searchbasic>

If you find a journal in the list at the following web address, it is not reputable:

<https://beallslist.net/>

Science research reports usually have the following specific parts. If a scientific report lacks these parts, it is likely not a peer-reviewed scientific research report on which I base my positions:

An introduction that explains background information about the topic of the investigation, what the research intended to accomplish, why that is important, how it builds on prior science research findings, and what it will contribute to advance science knowledge.

A description of the materials and methods used in the research that is sufficient for experts in the field to determine whether these methods are able to produce scientifically valid and accurate results.

A description of the results of the study that is sufficient for experts in the field to determine whether the conclusions are adequately supported by scientifically valid data and evidence.

A discussion of the results that states the conclusions drawn from the research and explains the reasoning used to draw those conclusions.

A list of references that document all of the substantive claims in the report that are not supported by the data and evidence gathered in this study.

My confidence in claims and conclusions is low if there is only a single research study that has been reported. My confidence increases depending on:

1. The number of peer-reviewed research studies that have been published in reputable science research journals by independent research groups with results that agree among the studies. The degree of agreement among the results is an important factor determining my confidence in the conclusions and claims.
2. The amount and quality of data, and if it is a medical or health study, the number of individuals included in the study and whether they are representative of the population to which the claims or conclusions are believed to apply. Data quality means, the level of statistical variance in the data and the validity of the data as determined by the criteria for data validity of that field of scientific research.
3. The time duration of the study. Studies conducted over longer periods of time usually lead to greater confidence in the conclusions but must have been conducted for at least a period of time sufficient to justify the conclusions that were drawn.
4. The evaluation of the results of these studies by independent experts in the type of research that is reported, to determine the validity and accuracy of the methods and reasoning. This is usually conducted by peer reviewers assigned by the journal but may also be supplemented by other scientists who are experts in the field of study who comment on the validity of the research.
5. The reputation of the research journal in which the report is published, for the accuracy and validity of the research the journal has published in the past. One measure of this is the Impact Factor which is a number calculated by counting the number of times that articles in the journal are cited by other scientists. Research reports are cited by other scientists usually only when scientists consider the research articles to be valid and accurate sources of information unless they are criticizing that report.

The positions which I have adopted are supported by multiple scientific research studies of substantive magnitude and usually include reports published in the most respected scientific research journals such as “Science”, “Nature”, the “Proceedings of the National Academy of Science”, and the “Journal of the American Medical Association”, among others.