

Trust in expert opinions

From: [Key Concepts for assessing claims about treatment effects and making well-informed treatment choices \(Version 2022\)](#)

1.4c Do not assume that opinions alone are sufficient.

Explanation

People often disagree about the effects of treatments, including doctors, researchers, and patients. This may be because their opinions are not always based on [systematic reviews](#) of [fair comparisons](#) of treatments. Who makes a treatment claim, how likable they are, or how much experience and expertise they have do not provide a reliable basis for assessing how reliable their claim is. This does not mean that conflicting opinions should be given equal weight – or that the existence of conflicting opinions means that no conclusion can be reached. How much weight to give an opinion should be based on the strength of the evidence supporting it.

Experts, just like everyone else, do not always base what they say on systematic reviews. For example, experts did not begin to recommend aspirin after a heart attack until years after there was strong evidence supporting its use [[Antman 1992 \(SR\)](#)]. Conversely, experts continued to recommend medicines to reduce heart rhythm abnormalities years after there was strong evidence that they increased the risk of early death after a heart attack.

Basis for this concept

More than two thirds of Americans often hear conflicting medical information from family and friends [[The Merck Manuals 2021 \(RS\)](#)]. Health professionals also often have conflicting opinions, and gaps between research findings and health professional practice are well documented [[Bero 1998 \(SR\)](#), [Bloom 2005 \(SR\)](#), [Boaz 2011 \(SR\)](#), [Grimshaw 2001 \(SR\)](#)]. Passive dissemination of research evidence does not adequately ensure that the opinions and practices of health professionals are consistent with the best available evidence.

New research evidence of the effects of treatments is published daily, making it difficult to keep up to date [[Bastian 2010](#)]. Studies that have examined how often clinicians have questions have found that, on average, clinicians have about one question for every two patients they see, but they only seek answers to about half of those questions [[Del Fiol 2014 \(SR\)](#)].

There is an enormous amount of information about treatments on the Internet, much of which is unreliable [[Eysenbach 2002 \(SR\)](#), [Glenton 2005 \(RS\)](#)]. Frequently, the basis for claims about the effects of treatments is not provided. Very few online sources of information about treatments are explicitly based on systematic reviews of fair comparisons, making it difficult to know which opinions to trust [[Oxman 2019 \(SR\)](#)].

Experts may disagree more than non-experts when assessing the quality of reviews of research evidence written by others; and reviews of research evidence written by experts may be, on average, of inferior scientific quality compared to reviews by non-experts [[Oxman 1993 \(RS\)](#)]. It appears that the greater the expertise of review authors, the more likely the quality is to be poor. Poor quality of reviews by experts may be related to the strength of their prior opinions and the amount of time they spend preparing a review. Like others, experts are prone to confirmation bias, and articles written by experts tend to selectively cite other articles that support their opinions [[Duyx 2017 \(SR\)](#)]. Expert opinion is nearly always based on evidence. The evidence can, for example,

be a systematic review of fair comparisons, anecdotal experience, or laboratory studies. The problem is that unless experts are explicit about the basis of their opinions, it is not possible to critically appraise the claims that they make [Schunemann 2019]. Many clinical practice guidelines that use the term “expert opinion” when evidence is insufficient or do not provide an explanation [Ponce 2017 (SR)]. The expert opinions are based on various types of evidence, most often indirect evidence. Indirect evidence does not directly support the recommendation, for example because of differences between the study participants and the people for whom the recommendation is being made, the treatments compared in the studies and recommendation, or the [outcome](#) measure in the study and the outcome of interest [Guyatt 2011b].

New randomized trials of treatments are typically planned and implemented by experts, and protocols for new trials are typically reviewed and approved or not approved by experts. This seems sensible, but the opinions of those experts are not always informed by systematic reviews of previous research, sometimes resulting in unnecessary harm and wasted resources [Clarke 2014 (SR), Lund 2016].

Implications

Do not rely on the opinions of experts or other authorities about the effects of treatments unless they have taken account of the results of systematic reviews of fair comparisons of treatments.

References

Systematic reviews

- Antman EM, Lau J, Kupelnick B, Mosteller F, Chalmers TC. A comparison of results of meta-analyses of randomized control trials and recommendations of clinical experts. Treatments for myocardial infarction. JAMA. 1992;268(2):240-8. <https://doi.org/10.1001/jama.1992.03490020088036>
- Bero LA, Grilli R, Grimshaw JM, Harvey E, Oxman AD, Thomson MA. Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings. The Cochrane Effective Practice and Organization of Care Review Group. BMJ. 1998;317(7156):465-8. <https://doi.org/10.1136/bmj.317.7156.465>
- Bloom BS. Effects of continuing medical education on improving physician clinical care and patient health: a review of systematic reviews. Int J Technol Assess Health Care. 2005;21(3):380-5. <https://doi.org/10.1017/s026646230505049x>
- Boaz A, Baeza J, Fraser A. Effective implementation of research into practice: an overview of systematic reviews of the health literature. BMC Res Notes. 2011;4:212. <https://doi.org/10.1186/1756-0500-4-212>
- Clarke M, Brice A, Chalmers I. Accumulating research: a systematic account of how cumulative meta-analyses would have provided knowledge, improved health, reduced harm and saved resources. PLoS One. 2014;9(7):e102670. <https://doi.org/10.1371/journal.pone.0102670>
- Del Fiol G, Workman TE, Gorman PN. Clinical questions raised by clinicians at the point of care: a systematic review. JAMA Intern Med. 2014;174(5):710-8. <https://doi.org/10.1001/jamainternmed.2014.368>
- Duyx B, Urlings MJE, Swaen GMH, Bouter LM, Zeegers MP. Scientific citations favor positive results: a systematic review and meta-analysis. J Clin Epidemiol. 2017;88:92-101. <https://doi.org/10.1016/j.jclinepi.2017.06.002>
- Eysenbach G, Powell J, Kuss O, Sa ER. Empirical studies assessing the quality of health information for consumers on the world wide web: a systematic review. JAMA. 2002;287(20):2691-700. <https://doi.org/10.1001/jama.287.20.2691>
- Grimshaw JM, Shirran L, Thomas R, Mowatt G, Fraser C, Bero L, et al. Changing provider behavior: an overview of systematic reviews of interventions. Med Care. 2001;39(8 Suppl 2):I12-45. https://journals.lww.com/lww-medicalcare/Fulltext/2001/08002/Changing_Provider_Behavior_An_Overview_of.2.aspx
- Oxman AD, Paulsen EJ. Who can you trust? A review of free online sources of "trustworthy" information about treatment effects for patients and the public. BMC Med Inform Decis Mak. 2019;19(1):35. <https://doi.org/10.1186/s12911-019-0772-5>

Ponce OJ, Alvarez-Villalobos N, Shah R, Mohammed K, Morgan RL, Sultan S, et al. What does expert opinion in guidelines mean? a meta-epidemiological study. *Evid Based Med*. 2017;22(5):164-9.
<https://doi.org/10.1136/ebmed-2017-110798>

Research studies

Glenton C, Paulsen EJ, Oxman AD. Portals to Wonderland: health portals lead to confusing information about the effects of health care. *BMC Med Inform Decis Mak*. 2005;5:7. <https://doi.org/10.1186/1472-6947-5-7>
Oxman AD, Guyatt GH. The science of reviewing research. *Ann N Y Acad Sci*. 1993;703:125-33; discussion 33-4.
<https://doi.org/10.1111/j.1749-6632.1993.tb26342.x>
The Merck Manuals. Merck Manuals survey: more than two thirds of Americans often hear conflicting medical information from family and friends. CISION PR Newswire. <https://www.prnewswire.com/news-releases/merck-manuals-survey-more-than-two-thirds-of-americans-often-hear-conflicting-medical-information-from-family-and-friends-301395024.html>

Other references

Bastian H, Glasziou P, Chalmers I. Seventy-five trials and eleven systematic reviews a day: how will we ever keep up? *PLoS Med*. 2010;7(9):e1000326. <https://doi.org/10.1371/journal.pmed.1000326>
Guyatt GH, Oxman AD, Kunz R, Woodcock J, Brozek J, Helfand M, et al. GRADE guidelines: 8. Rating the quality of evidence--indirectness. *J Clin Epidemiol*. 2011b;64(12):1303-10.
<https://doi.org/10.1016/j.jclinepi.2011.04.014>
Lund H, Brunnhuber K, Juhl C, Robinson K, Leenaars M, Dorch BF, et al. Towards evidence based research. *BMJ*. 2016;355:i5440. <https://doi.org/10.1136/bmj.i5440>
Schunemann HJ, Zhang Y, Oxman AD. Distinguishing opinion from evidence in guidelines. *BMJ*. 2019;366:l4606.
<https://doi.org/10.1136/bmj.l4606>