

Educational Papers in BMJ and Other

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HOW TO CHECK A SIMULATION STUDY

Simulation studies, valuable in epidemiology and biostatistics, pose challenges in their successful execution. Unforeseen outcomes may arise, prompting the need for guidance on validating such studies and designing and conducting them to yield results that are more easily verifiable.

To read more, click [\[HERE\]](#)

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HOW TO READ A PAPER: PAPERS THAT REPORT DRUG TRIALS

The value of a drug should be assessed considering safety, tolerability, efficacy, and price. Efficacy measurement should ideally focus on clinically relevant endpoints for patients, and if surrogate endpoints are used, they must be valid. Additionally, promotional literature with low scientific validity, like uncontrolled before-and-after trials, should not impact medical practice.

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HOW TO READ A PAPER: STATISTICS FOR THE NON-STATISTICIAN. I: DIFFERENT TYPES OF DATA NEED DIFFERENT STATISTICAL TESTS

When evaluating statistical tests in a paper, start by assessing the comparability of groups at baseline. Ensure that the chosen test aligns with the type of data analyzed (parametric or non-parametric, paired or unpaired). Use a two-tailed test when the intervention's effect could be negative. Verify if data analysis adheres to the original study protocol. If obscure tests are employed, authors should justify their choice and provide references for clarification.

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HOW TO READ A PAPER: STATISTICS FOR THE NON-STATISTICIAN. II: "SIGNIFICANT" RELATIONS AND THEIR PITFALLS

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HOW TO READ A PAPER: PAPERS THAT SUMMARISE OTHER PAPERS (SYSTEMATIC REVIEWS AND META-ANALYSES)

A systematic review provides a comprehensive summary of primary studies, employing explicit and reproducible methods. In contrast, a meta-analysis involves mathematically synthesizing results from multiple studies addressing the same hypothesis in a consistent manner. While meta-analysis enhances result precision, it is crucial to verify the validity and reliability of the review methods.

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HOW TO READ A PAPER: PAPERS THAT GO BEYOND NUMBERS (QUALITATIVE RESEARCH)

Qualitative methods seek to interpret phenomena by understanding the meanings individuals attribute to them. Qualitative research may generate initial questions for subsequent exploration in quantitative studies. Effective qualitative studies addressing clinical problems pose clear questions and employ multiple research methods, a practice known as triangulation. The analysis of qualitative data should adhere to explicit, systematic, and reproducible methods.

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HOW TO READ A PAPER: PAPERS THAT TELL YOU WHAT THINGS COST (ECONOMIC ANALYSES)

An economic analysis can be defined as an analysis that uses analytical techniques to define choices in resource allocation. This article is based largely on a short booklet by Professor Michael Drummond¹ and two of the forerunners to the “Users' Guides to the Medical Literature” series.

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