

# How to read a paper: The basics of evidence-based medicine, 5th edn

**Trisha Greenhalgh**

BMJ Books, 2014

ISBN: 1118800966

With a plethora of medical papers published in an ever-growing number of medical journals, there exists a multitude of methodologies employed, research-specific terminology and differing styles of research through which general practitioners (GPs) and registrars need to navigate. *How to read a paper: The basics of evidence-based medicine* provides information on how to critically appraise and evaluate published literature, with an eye to eventual implementation into practice.

Since Trisha Greenhalgh published the first edition in 1996, her work has progressed through five editions, is read extensively by students and teachers in medical and nursing schools worldwide, and has been translated into 10 languages. Each edition contains new references and clinical examples to ensure it remains up-to-date. The continued success of this informative book resides in its accessibility: it is clear, well articulated, logical and readable. Greenhalgh's easy writing style invites readers to step inside the world of evidence-based medicine research and glean an understanding of often-difficult concepts.

There are 17 chapters to explore, beginning with a succinct overview of the core concepts of evidence-based medicine. The early chapters provide an outline of the underpinnings of reading and examining research publications. Greenhalgh highlights the necessity of knowing how to determine if the research methodology of a published paper is sound, as it is this methodological soundness that will influence its suitability for incorporation into clinical reasoning. The use of statistics, a cornerstone of quantitative research methodology, is detailed in a reasonably straightforward manner.

Specific types of clinically relevant research papers (eg trials of drug treatments, simple and complex interventions, reports on

diagnostic and screening tests, systematic reviews, meta-analysis, guidelines) are clearly laid out and explained. Greenhalgh delivers a critique on the implications and ethical dilemmas with 'Big Pharma's' involvement in dedicated drug research and marketing, and offers suggestions to the practitioner to get the most out of the ubiquitous 'drug rep'.

As a qualitative researcher, I was a little concerned when Greenhalgh stated in Chapter 1, page 1, that evidence-based medicine involved numbers. Where then, did qualitative research fit in, if it did at all? Thankfully, Chapter 12 is devoted to papers that fall outside the realm of mathematics and numbers, yet clearly have much to offer the medical field. Like quantitative research, qualitative methodology comes with its own set of philosophical underpinnings, specialised terminology, and issues of transferability, reliability and validity (trustworthiness). Greenhalgh offers a succinct yet clear overview of the key questions to ask when reading qualitative research. As Greenhalgh points out, more qualitative research is finding its way into medical journals, particularly in the field of primary healthcare. Therefore, it is worth taking the time to gain a deeper understanding of the methodological rigour required for qualitative research to be considered of potential value.

The fifth edition contains two new chapters. The first of these discusses evidence-based medicine in a situation where it perhaps matters most to clinicians – in consultation with the patient. Greenhalgh considers the patients' perspectives and individuality, and goes on to outline methods by which clinicians can approach evidence-based medicine with their patients to enhance patient involvement when individualising care as part of the shared

decision-making process. The final chapter is a critique of evidence-based medicine, considering the difficulties encountered

when evidence-based medicine research is poorly performed and articulated, and the ethical and philosophical considerations around even well-done evidence-based medicine research.

Throughout the book, Greenhalgh uses tables, figures and boxes to summarise and highlight important aspects of the topics under discussion. Each chapter is well referenced, with additional links and references provided in-text for

those interested in exploring a topic in greater depth. A particularly useful feature located in Appendix 1 is a series of checklists arranged by chapter, and organised by headings and subheadings. Not only is this a handy recall mechanism to remind the reader of questions to be asked when presented with a research paper, it also serves as an alternative indexing system allowing for easy referral back to the text.

The strength of the book as an introductory text is due to Greenhalgh's ability to 'cut to the chase' and present complex research and methodological concepts in a clear and logical manner. It does not intend to be a 'how to do research' text, but rather one that allows the reader to gain an understanding of the numerous variations of research that are in play. Importantly, this book informs its audience on how to read studies to determine the methodological soundness and quality of research, to determine scientific validity and thereby make an informed decision as to whether or not to use the findings to inform clinical practice.



Dr Valmae Ypinazar DipTeach, BEd (Hons) PhD,  
Senior Research Fellow, School of Medicine,  
Griffith University, Southport, Qld