The contribution of qualitative research to evidence-based medicine

Qualitative evidence: The contribution of qualitative research to evidence-based medicine

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A common description of evidence based medicine is “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Sackett et al 1996, p. 71). Such descriptions typically consider the best available evidence to be that obtained from systematic research. Discussions of “evidence based medicine” (EBM) or “evidence based practice” usually focus around the hierarchy of evidence which places the RCT (randomised control trial) at the top as the most trustworthy type of evidence, followed by “experimental” evidence. Qualitative information, such as clinical observations (“anecdotal evidence”), is either at the bottom of the list, or is not considered “evidence” at all. Supporters of EBM acknowledge that, while RCTs remain the “gold standard,” if such evidence is not available “we must follow the trail to the next best external evidence and work from there” (Sackett et al, 1996, p. 72). The EBM movement has had a powerful influence on clinical practice in medicine, and increasingly on other, broader health interventions, such as those in public health. Given the enthusiasm for evidence based guidelines, it is timely to review the contribution that qualitative research can make to EBM.
When is qualitative research useful?

What specific roles can qualitative evidence play in developing effective practice for clinical practice and public health interventions? Qualitative findings are often the first type of evidence available relating to innovations and contextual constraints relating to existing practice. Indeed for some topics, qualitative data gathering may be the only type possible. There are numerous examples of the initial evidence for effective innovative practices, emerging initially from qualitative data (Box 1).

Box 1: Innovative evidence may emerge initially from qualitative data such as case studies

Barry Marshall, a medical researcher in Western Australia infected himself with bacteria to assess his hypothesis that bacteria were a cause of stomach ulcers. After developing a stomach ulcer, he cured it using antibiotics, thus providing evidence that the cause of at least some stomach ulcers was a bacterium. Other medical researchers and drug companies tried to discredit his findings. ("60 minutes" TV2, October 1994).

The value of good qualitative data is that it can provide crucial information about context and processes related to health practices and interventions.

Qualitative evidence can be useful in the following circumstances.

1. Topics for which there is little or no previous research.
2. Implementation of social policies and changes where the use of RCTs or other types “experiments” is not possible (e.g., the “deinstitutionalisation” of psychiatric services).
3. To complement quantitative data gathering. For example, to provide data about unanticipated impacts of interventions. In some instances qualitative procedures may uncover information not obtainable using quantitative methods (e.g., a qualitative study of women who were not up to date with their pap smears found some did not go to their GPs because they did not have a new set of underwear).
4. A preliminary research phase that assists the design of subsequent quantitative research. Qualitative evidence may often be the “best available” evidence until quantitative research is carried out.

Trustworthiness of qualitative research

A key issue for qualitative research is developing a shared understanding of appropriate procedures for assessing its credibility or trustworthiness ("validity"). In a broad sense, trustworthy qualitative research, like quantitative research, needs to be based on systematic collection of data, using “acceptable” research procedures, and allowing the procedures and findings to be open to systematic critical analysis from others.
The following specific procedures can be used to assess the trustworthiness of qualitative research. These techniques can also be used to assess quantitative research.

Triangulation refers to comparison of findings derived from two or more data gathering procedures or sources of information. Using this technique, emerging findings can be assessed for the extent of consistency or inconsistency among data derived from different sources. Transparency refers to the extent to which the researcher makes clear how the raw data were gathered, how the analysis was carried out and how the findings were derived from the data analyses. A related concept is the audit trail; providing a clear and defensible link for each step from the raw data to the reported findings. Links to the raw data is important in qualitative research. A good practice is to report the findings so they are “grounded” in the raw data, through the use of quotes or case studies. Replication, the repeating of the research (especially by different researchers in another location) to see if the same findings emerge, is a robust technique for verifying trustworthiness. Replication requires transparency in the reporting of original research methods. Stakeholder checks refer to the process of taking the draft findings to people such as research participants, service providers and others who have an interest. The researcher seeks comment on the extent to which the findings are consistent with their experiences, and whether the findings assist understanding of the topic being investigated.

Recommended reading


Information

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