Qualitative research as evidence: expanding the paradigm for evidence-based healthcare

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Writing in the *BMJ*, David Sackett and John Wennberg pointed out over 20 years ago we need to stop 'squabbling over the best methods' and focus on the research question, since it is the nature of the question that determines the best research design to answer it.[1] Yet, the majority of evidence hierarchies and 'levels'[2] still do not include qualitative methodologies, and Evidence-based Health Care (EBHC) still largely focuses on the positivist perspective of generating and applying knowledge in healthcare practice.[3] Despite its lack of prominence in EBHC, qualitative research in healthcare has increasingly been conducted and published since Sackett and Wennberg's editorial, and the publication of qualitative evidence syntheses have doubled in the past decade.[4]

The argument for qualitative research within EBHC has been made for over 20 years,[5] including a series of educational articles in the *BMJ*[6–9] and all of which have citations in the 1000s. NB: the journal has since reversed their position on qualitative research to one where qualitative research seems no longer a priority for the journal to the dismay of prominent proponents.[10]

To understand why qualitative research has yet to achieve the same status as other forms of evidence within the evidence-based healthcare movement, we need to consider wider contextual factors surrounding research and the underlying epistemological differences between the quantitative and qualitative paradigms.

Qualitative research can be of exploratory and/or explanatory nature. It seeks to answer 'how' and 'why' questions rather than trying to establish causation or correlation using statistical methods and aims to explore different perspectives and experiences of phenomena.[11] It falls within an interpretivist/constructivist paradigm (interpretivism assumes that the world does not exist independently of our knowledge of it. Knowledge and meaningful reality are constructed in and out of interaction between humans and their world and are developed and transmitted in a social context), which cannot and indeed does not aim to make definitive statements about its research findings.[11] The underlying premise of methodologies that use qualitative methods does not assume *one* truth that can be verified and replicated but rather several truths that are equally valid. Thus, research within this paradigm does not propose hypotheses a priori (although some methodologies such as Grounded Theory aim to develop hypothetical statements as one of its outcomes) and is therefore less likely to produce 'headline grabbing' results than findings from other study types (eg, observational cohort studies).

Arguably, healthcare and healthcare systems as well as populations are becoming increasingly complex. Growing emphasis is placed on exploring and understanding the patient experience of healthcare services and ill-health as a way to provide healthcare that is more 'patient-centred' both on a policy[12] and research level.[13] Equally, people are living longer but with more chronic conditions than ever before, and there is also a clear need to consider the increasing cultural and ethnic complexity of patient populations. Seminal work by qualitative researchers has provided a much better and in-depth understanding of the patient experience of long-term conditions and thus provided the evidence to improve health services for this patient population.[14–16] Advancements in medical treatment and technology result in more complex procedures and interventions, and polypharmacy is on the rise. Quantitative data alone are unlikely to provide the insight needed to tackle these challenges. Simply knowing 'what works' is not enough. For complex interventions in particular, we need to know what works and *why* it may (or may not) work, and how significant research findings can be translated into front-line healthcare and health service delivery. Therefore, traditional randomised controlled trials (RCTs) on their own may not be the best way to assess 'efficacy' and implementation.[17]

Complex interventions and implementation research rely on qualitative alongside quantitative methods.[17 18] Using a mixed method approach in health services research allows us to understand how best to place a complex intervention within its current clinical context and to identify the opportunities and barriers to changing clinical care.[19] Yet, we also know that qualitative studies within RCTs remain uncommon and are often poorly integrated with the wider trial findings.[17] Demonstrating the importance of improving this, frameworks such as the Medical Research Council (MRC) guidance for conducting and reporting process evaluation studies have since been developed to advise researchers how to integrate qualitative methodology within RCTs of complex interventions.[20]

Qualitative methods have long played an important role in research into quality and safety in healthcare: to understand how medical errors occur, to consider how to minimise them and to identify ways to improve quality of care and support better teamwork. Lingard *et al*'s[21] study on identifying communication errors and challenges in teamwork in operating theatres that may lead to medical errors is one of the most cited (over 1000)

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qualitative studies in healthcare research. Their ethnography of general and vascular surgery over a 3-month period revealed different types of communication errors. This led to the development of a preoperative communication checklist[21 22] that has led to significant reductions in communication errors among surgical teams.[23] The initial data from the ethnographic study provided the crucial evidence on which the checklist was based. Another area within health services research, where qualitative research methodologies have contributed important knowledge and evidence in recent years, is the implementation and adoption (or lack thereof) of technological innovations, particularly around digital health interventions.[24–28]

There is undoubtedly a place for qualitative research within EBHC and a sound argument for why it should be included in hierarchies of evidence. However, given its different epistemological perspective to positivist, quantitative research and the fact that it not taught to the same extent (if at all) in medical schools (since the prevailing epistemological stance of medicine is that of positivism), it is perhaps unsurprising that EBHC practitioners may find it difficult to understand the contribution it can make to clinical care. However, as with any research, we need to be able to distinguish poor research from high-quality research in order to judge its relevance and appropriateness for healthcare services. Increasingly, research collaborations between different disciplines and methodologists are bridging some of this gap. Yet to ensure that healthcare practitioners have sound knowledge of several research designs across the epistemological divide, we may need to further incorporate interdisciplinary training across healthcare professions (nursing research, eg, tends to be situated predominantly within a constructivist/interpretivist paradigm).

We argue that it is important that EBHC practitioners develop the knowledge and skills to appraise and review the methods and methodologies of qualitative research. However, as we explain in our next paper, appraising qualitative research is a complex endeavour. We set out the rationale for why we need to appraise qualitative health research and introduce the current debates and challenges of using existing frameworks and tools for its appraisal.

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