

15: How to peer review a qualitative manuscript

JOCALYN P CLARK

New models of health demand innovative modes of inquiry, such as qualitative research. Qualitative methods are well suited to exploring topics like patient satisfaction, compliance, attitudes, and the application of evidence to clinical practice. Despite the growth in qualitative research in the health sciences' literature, little guidance is available for peer reviewers. In this chapter I present a synthesis of quality criteria for qualitative research and offer a summary set of peer review guidelines called RATS.

New models of health and health care inspire new research questions which demand innovative modes of inquiry. In the era of evidence-based medicine, there is a growing need to generate knowledge about patient satisfaction, compliance, and attitudes, as well as the application of evidence by practitioners to clinical practice.¹ An understanding of these phenomena – which are social phenomena – is best accomplished using qualitative methods. These include such diverse tools as in-depth interviews, focus groups, observations, case studies, and document analyses. Reflecting increased recognition of the value of qualitative evidence and the perceived preferences of clinical readers, more and more qualitative studies have recently appeared in the health sciences literature.

Unfortunately, an increased quantity of qualitative papers does not necessarily guarantee quality.² The reasons for this are debated. In an evaluation of qualitative studies appearing in seven medical journals during 1991–5, Boulton and colleagues reported that most failed to conduct methodologically sound data analyses.³ Their evaluation, however, used typical quantitative criteria of representativeness, reliability, and validity. Hoddinott and Pill conducted a systematic review of qualitative studies in general practice and found that published papers often lacked methodological details, which limited critical appraisal. Ironically, their own paper failed to illuminate their methodological decisions. For example, in describing inclusion criteria of studies, no justification was given for why “research studies using focus groups alone were not included”.⁴ Nevertheless, these two empirical studies suggest that important contextual details were

missing from published qualitative studies in health sciences journals, which may contribute to an impression of low quality.

Authors, on the other hand, grumble that the rigid requirements (i.e., word count) of medical journals and reviewers' attempts to "quanti-sise" qualitative research (apply assumptions of the quantitative paradigm to quality assessment) prohibit publication of their work, or at least prevent them from finding credibility in health sciences journals.⁵ Greenhalgh and Taylor suggest that journal editors "have climbed on the qualitative bandwagon without gaining an ability to appraise such papers".² Popay and colleagues warn that adopting conventional criteria unmodified will result in qualitative research always being seen as inferior to quantitative, and in poor quality qualitative work which meets quantitative criteria being privileged.⁶ This poses a challenge for the effective and successful peer review of qualitative manuscripts.

In spite of reader and author interest in qualitative research, remarkably few health sciences journals have guidelines for their reviewers.¹ But in articulating good peer review, we can draw on insights from recent attempts to develop guidelines for the quality evaluation of qualitative studies, including the recent proliferation of "checklists". Few would dispute that qualitative research begs different modes of evaluation than conventional quantitative health science, but efforts to develop standards have been marred by a lack of consensus about what constitutes qualitative scientific rigour and the appropriateness of standardised criteria. On the one hand, standard criteria are alleged to inhibit the creative and imaginative use of qualitative methods,^{3,7,8} which it is argued are crucial to enhancing our understanding of patients' experiences and the social aspects of health and illness. Lambert and McKeivitt state that the problem with bad qualitative research is not its methods but the separation of method from theory.⁸ This means that the overemphasis of checklists on "technical fixes" or a "one size fits all" model to ensure rigour is potentially misguided and overly prescriptive.⁷ On the other hand, many scholars and editors feel guidelines for the evaluation of qualitative research are necessary to increase the profile of qualitative research and multidisciplinary perspectives in the health sciences literature, as well as to facilitate the conduct of systematic reviews.^{6,7} Scholars on both sides of the checklist debate acknowledge that the qualitative-quantitative dichotomy is overstated,⁹ which potentially overshadows the important and supplementary contribution qualitative research makes. From the perspectives of the journals, the aim to publish rigorous, relevant, and readable material applies to both quantitative and qualitative manuscripts.¹⁰ The bottom line, then, for peer reviewers is that guides should be used in a facilitative rather than prescriptive way, and by reflective reviewers knowledgeable in qualitative methodologies.

This chapter synthesises current perspectives on how quality of qualitative research in the health sciences ought to be assessed, in

particular how these papers should be peer reviewed by drawing on the work of several scholars and journals.^{2,6,9,11-24} How to do qualitative research,²⁵⁻²⁹ the relative merits of qualitative and quantitative health research,³⁰⁻³⁴ and a more involved discussion of the quality debate^{1,5,6,7,16,35-37} are published elsewhere. Readers of the general medical literature are encouraged to read the *BMJ*^{16,17,25-29,33,38,39} and *The Lancet*^{15,40} series on qualitative research, as well as the relevant instalments of *JAMA's Users' Guide to the Medical Literature*.^{9,14} The aim of this chapter is to integrate existing guidelines and checklists and to provide practical advice for the peer reviewer of qualitative manuscripts in the health sciences by using illustrative examples.

RATS

A synthesis of existing scholarship on the quality evaluation of qualitative health research resulted in a summary set of guidelines which I call RATS: Relevance, Appropriateness, Transparency, and Soundness (see Table 15.1). In facilitating peer review, RATS is consistent with the strategies of Mays and Pope to ensure rigour in qualitative research: systematic and self-conscious research design, data collection, interpretation, and presentation. An explicit and detailed account of methods and a coherent and plausible explanation of analysis are key to this aim.¹⁶ Crucially, the RATS elements are *linked*, in the sense that for the findings to be credible, the research process must include a research question consistent with the theoretical standpoint, and the choice of data sources, ethical considerations, and interpretative strategies must follow logically from the question.⁴¹

Relevance of the research question

Your first task as a peer reviewer is to assess the relevance of the research question, which should be explicitly stated by the authors. In the introduction, the authors should take adequate account of the existing knowledge base which allows the reviewer to assess whether the research question is well reasoned and conceptually sound; that is, whether it fits the context and the issue. For example, Penman-Aguilar *et al.* reviewed the literature on female condom use and concluded that a “dearth of information regarding male partner reactions to women” exists, justifying their qualitative exploration of couple dyads’ acceptability of the female condom.⁴² The existence of biased or unsubstantiated theory is also commonly stated as justification for qualitative work. In qualitative research the research question is paramount because it guides the whole study (in contrast to quantitative research, which is guided by the predetermined hypothesis).

Table 15.1 Guide to peer reviewing qualitative manuscripts: RATS

R Relevance of study question	Is it important for medicine or public health? Is it linked to existing knowledge base (literature, theory, practice)?	Is the research question explicitly stated? Is the research question justified?
A Appropriateness of qualitative method	Is qualitative methodology the best approach for the study aims? Is the study design justified?	Why was a particular method (for example, interviews) chosen?
T Transparency of procedures	<i>Sampling</i> Are criteria for selecting the study explained and justified?	Why were these participants selected as the most appropriate to provide access to type of knowledge sought by study?
	<i>Recruitment</i> How and by whom was recruitment conducted? Was selection bias discussed?	Who chose not to participate and why?
	<i>Data collection</i> Was collection of data systematic and comprehensive? Are characteristics of study group and setting clearly described? When was data collection stopped and why?	Are methods explicitly outlined and examples, such as interview questions, given?
	<i>Role of researchers</i> Do the researcher(s) critically examine their own influence on the formulation of the research question, data collection, and interpretation?	Do the researchers occupy dual roles (clinician and researcher)?
	<i>Ethics</i> Is informed consent detailed? Is a discussion of anonymity and confidentiality presented? Was approval from ethics committee received?	How were anonymity and confidentiality ensured?
S Soundness of interpretative approach	Is process of analysis described in-depth?	

(Continued)

Table 15.1 (Continued)

How were themes derived from the data? Were alternative explanations sought?	Were negative or deviant cases analysed?
Are the interpretations clearly presented and adequately supported by the evidence?	Were quotes used and on what basis were these chosen?
Was trustworthiness of data checked?	Was an audit trail or triangulation employed?
Are findings presented with reference to existing theoretical and applied literature?	
Are limitations discussed?	
Is the manuscript well written and accessible?	

Appropriateness of the qualitative method

Next, you must assess the appropriateness of the qualitative method. This element refers to both the choice of a qualitative methodology to examine the research question, as well as the specific method selected. Qualitative methodology explores or interprets people's experiences and actions and is appropriate when little is known of a social phenomenon or when questions of process, context, or subjective meaning are of interest. A research study poised to test a causal hypothesis, for example, would be better suited using a quantitative approach. Risdon and colleagues justified their use of multi-qualitative methods because their objective was to explore the social and cultural factors influencing the medical training experiences of gay and lesbian physicians, rather than testing a priori hypotheses experimentally.⁴³

In terms of the specific method, many are available in the qualitative researcher's toolbox and the authors must defend their choice. These include in-depth interviews (individual or group, semi-structured or open ended), participant observation, ethnography, case study analyses, or document analyses. Sometimes more than one method is used to capture a wider range of information, but this is not necessary. It is your job as peer reviewer to determine whether the tool fits the research question and context. Focus groups, for example, are a convenient and relatively inexpensive way to capture the perspectives of a large number of people at one time, and are particularly valuable for capitalising on group interactions,^{27,44} but are not appropriate for groups of patients whose confidentiality must be protected or may be considered vulnerable. In-depth interviews with individuals are useful for eliciting personal experiences and motives, especially on sensitive topics.⁹ Key informant interviews are also frequently used in the health

sciences, and the selection of certain informants (for example, policy makers rather than programme recipients) must be clearly articulated. Campbell and Mzaidume justified their use of in-depth interviews with the planners and facilitators of a peer education programme because they were evaluating its architecture and viability.⁴⁵

Together these two first components – relevance and appropriateness – amount to the peer reviewer’s assessment of what Hills calls “paradigmatic integrity”: a consistency among the researcher’s theoretical orientation, the research question, the methodology used to frame the research, and the choice of methods used to collect and analyse data.⁴¹

Transparency of research procedures

The third element of the peer review of qualitative manuscripts is the assessment of the transparency of research procedures. An evaluation of the rigour and quality of the qualitative research crucially depends on explicit detail of data collection methods and the theoretical bases for various methodological decisions. These also allow another researcher to audit or approximate the study, if necessary or appropriate. The sample selection criteria, for example, may be based on convenience, purposive, or snowball strategies (all of which are legitimate and common approaches to generating qualitative study groups) and the reasons for the particular strategy are important to critical assessment of whose perspectives are represented. In Braunack-Mayer’s study, semi-structured interviews were conducted with 15 general practitioners to explore their perceptions of ethical dilemmas in their practices, but sampling or recruitment details are missing.⁴⁶ It is difficult, then, for you as the peer reviewer to critically assess potential selection bias (that is, whose views were excluded). Bradley *et al.*’s qualitative study of post-acute myocardial infarction (AMI) β -blocker use succinctly described their selection of hospital sites based on purposeful sampling: diversity among geographical regions, size, AMI volume, and improvement or decline in β -blocker use over time.⁴⁷ A lack of information about how individual participants within these sites were chosen and recruited for the in-depth open ended interviews, however, makes it difficult to judge the appropriateness of the study group and how comprehensively the participants illustrate issues of interest.⁹

Together with sampling and recruitment strategies, a discussion of the characteristics of the sample and the setting generates insight into the nature of the study and the perspectives elicited from the range of data sources. As the peer reviewer you should also look for clearly stated reasons about when and why data collection was stopped. Typically, qualitative data collection strategies evolve as the study proceeds, as new insights are generated and new cases or angles need

to be pursued. At some point, a reasoned decision to cease data collection occurs. Bradley *et al.* stated that, based on purposeful sampling, hospital sites were chosen until “no new concepts were identified”⁴⁷ which is often referred to by qualitative researchers as data “saturation” or “redundancy”.

A fourth facet related to the assessment of the transparency of research procedures is evidence of reflexivity. The researchers ought to examine critically their own roles and their potential impact during the formulation of research questions, data collection, and analysis. If relevant, you will want to consider the impact of researchers conducting work in their own clinical setting. Does this dual role of practitioner and researcher compromise their study⁴⁸ Did participants respond to interviews with responses they thought their doctor wanted to hear? While researcher “contamination” is a typical criticism of qualitative work, many scholars believe bias is not bad when reflexivity is practised; that is, when the researcher’s role is made explicit.¹⁵ While some might see this as a threat to credibility, others argue that the researcher’s engagement rather than detachment is a strength of the qualitative approach.⁴¹

The fifth facet involves ethics. Ethical considerations are extremely critical to the reporting and critical peer review of qualitative manuscripts because this type of research involves dealing with human subjects in a more direct way. A discussion of mechanisms employed to ensure participant confidentiality and anonymity must be described. Approval of the ethics committee must be stated, as well as the process of informed consent. Honoraria are common in qualitative health research studies, especially those dependent upon the participation of physicians. Putnam *et al.* explicitly described the payment of honorariums,⁴⁹ but Bradley *et al.* mentioned nothing of ethics approval or procedures which limits the credibility and thoughtfulness of their study.⁴⁷

Soundness of interpretative approach

The final element for the peer reviewer is to critically assess the soundness of the interpretative approach used by the researchers. This involves an evaluation of their analytic framework and process and the credibility of their interpretations.

Detail of the analysis process

Qualitative data analysis typically involves induction and iteration whereby initial generalities are enhanced and refined into developed concepts through subsequent data collection and interpretation. Grounded theory, popular in the health sciences, is one analytic approach and is characterised by the constant comparison of the data

items as they are collected, and the iterative testing and retesting of theoretical ideas.³⁹ Putnam *et al.* state their study was guided by grounded theory methodology, which they describe as “excellent for examining complex social realities” but fail to give sufficient detail of how this was used,⁴⁹ thus limiting critical appraisal. Other types of analysis model both inductive and deductive processes, whereby analysts use “the categories that participants themselves suggested and also (draw) on explanatory concepts from the literature”.⁴⁶

In critically assessing the analytic process, you should ask how the themes were derived from the data. Giacomini and colleagues suggest that the interpretative analysis must be supported by a breadth (type of observations) and depth (extent of each type) of data collection, to permit rich and robust descriptions.^{9,14} Hartley and Wirz usefully provided tables which displayed categories and codes and evidence to support those codes and categories.⁵⁰ By way of contrast, Putnam *et al.* sampled participants for focus groups in rural, semi-urban and urban settings but failed to mention the diversity among geographic variables in the extraction and reporting of themes.⁴⁹ An in-depth description of extent of the analysis is crucial for assessing the depth and quality of the findings. Evidence for this comprehensiveness will allow you as peer reviewer to get a real sense of how the data were organised, related, and interpreted.

The analytic process should include evidence of searching for contradictions and counter explanations. Often called deviant case analysis, pursuing negative cases or “outliers” will help refine the analysis. Rather than just an acknowledgement that this was conducted, you will want to know how these searches were taken into account.⁷ The point at which no new information is garnered that informs or challenges the developing framework (that is, saturation, as discussed above) is usually given as justification for stopping the data analysis.

The rigour of data analysis is enhanced by trustworthiness of data. Trustworthiness activities include thorough transcription of interview tapes, creation of memos about methodological decisions, and recording of personal reflections throughout the research process. These often form the basis of an audit trail.⁴⁸ Triangulation techniques are commonly used, but their appropriateness is frequently debated. Investigator triangulation is when more than one research collects and interprets data, such that consensus of findings develops.⁹ Member checking involves sharing drafts of the report with participants to ensure accuracy. Risdon *et al.* described their trustworthiness approach involving “data, method and investigator triangulation”: multiple data sources (medical students, interns, and residents), different methods (interviews, focus groups, internet conferencing), and multidisciplinary investigators (a family physician with expertise in lesbian and gay health, an internist epidemiologist with experience

in physician training environments, and a medical anthropologist).⁴³ Note that the explicit detail of the researchers' qualifications provides insight into potential biases, which aid the peer reviewer's assessment of credibility of interpretations.

Credibility of interpretations

Chiefly when assessing the credibility of interpretations, you should ask whether they are clearly presented and adequately supported by evidence. This is what Popay and colleagues call interpretative validity: "How does the research move from a description of the data, through quotation or examples, to an analysis and interpretation of the meaning and significance of it?"⁶ Sometimes this will involve empiric summarisation or use of quasi-statistics. More often this will involve the use of quotes to illustrate key findings and offer contextual detail. As Greenhalgh states, it is not enough for the authors to mine the data looking for "interesting quotes" to support a particular theory.² Data extracts should be presented such that they give the peer reviewer a sense of the nature of the phenomena investigated as well as the researchers' interpretative approach.⁹ On what basis those data extracts are chosen must be stated.⁵ Braunack-Mayer, for example, described her choice of quotes as being representative of the categories which organised the themes generated from her data; "where anomalies and disconfirming pieces of evidence arise, these are explicitly mentioned".⁴⁶ Indeed, evidence of counter explanations is often described by using quotes of deviant or negative cases. This enhances the credibility of interpretations.

Giacomini and colleagues state that findings should be rich, robust, coherently organised, well reasoned, logical, and plausible.¹⁴ If figures are used to illustrate findings, they should be meaningfully labelled and relationships between concepts depicted. In taxonomies, domains must be clearly defined.

Findings should also be discussed with reference to the existing theoretical and/or applied literature. Risdon *et al.* reported their findings in relation to the professionalisation theories of "becoming a doctor" which thus far had failed to take adequate account of experiences of lesbians and gays.⁴³ Bradley and colleagues discussed, in turn, four key factors influencing post-AMI β -blocker use across their study groups, discussing each in relation to existing literature both in terms of consistency and what new insights were generated. For example, the notion of physician leadership was largely unprecedented: other studies had acknowledged and tested the influence of physician involvement, but had conceptualised it as participation rather than leadership and the positive impact opinion leaders have in the care of AMI patients.⁴⁷

In presenting the results of the analysis, limitations should be acknowledged. Bradley *et al.* acknowledged the narrowness of their sample, which may have limited its applicability to other settings. Their reliance on self-reporting of β -blocker use rather than in combination with “official” utilisation data, as well as the exploratory objective of the study, prohibited them from making sweeping claims and instead points the way for further research.⁴⁷ Discussion of limitations may also involve researchers discussing the credibility of their findings.

The presentation of results and discussion of limitations will allow you to ask: are these findings important? Do they make a meaningful contribution to the understanding of the field or to patient care? Do the results give insight into the experiences of patients and their families? A related notion you will want to consider is that of transferability: can the findings be applied to or be useful to another study? Campbell and Mzaidume’s microqualitative case study focused on a grassroots initiative in a South African mining town, but their findings are argued to be applicable to other deprived, “hard to reach” communities where existing norms and networks are inconsistent with ideal criteria for participatory health promotion.⁴⁵ Braunack-Mayer stated that her qualitative data problematise the orthodox notion of bioethics which has conventionally been seen as conflict and choice between competing alternatives; GPs in her study reported perspectives consistent with the mainstream models, but also emotional and relational aspects of ethics which challenge universal rules and principles.⁴⁶

Your final task as a peer reviewer is to assess the presentation of the qualitative study. Is the manuscript logically organised and is the writing clear, direct, and concise? Most qualitative reports will read like a narrative or story, richly illuminating social phenomena, but must remain clear and accessible to the reader.

Practical tips for being a good peer reviewer of qualitative manuscripts

Now that the peer review is complete, there are a couple of considerations to keep in mind when preparing the report. First, be clear if your expertise is not in qualitative research. Qualitative researchers understandably resist having their work subjected to review by peers unfamiliar with (and sometimes contemptuous about) qualitative methodologies. While peer reviewers need not be entirely oriented towards the theoretical, epistemological, and philosophical underpinnings of qualitative work, some sensitivity to its paradigm is necessary. Just like authors expect, and many editors require,

knowledgeable economists or statisticians to provide reviews of econometric or statistical analyses, drawing on relevant expertise in the peer review of qualitative manuscripts is essential.

Second, if you do feel confident enough to peer review the qualitative manuscript sent to you, avoid being snobby. Chapple and Rogers³⁶ liken the assumption that only trained social scientists and theoreticians can do qualitative research to “sociological imperialism”. Qualitative research is not the sole domain of social sciences. Health practitioners have access to patients and bring to bear a clinical knowledge on many important research questions, such as patient satisfaction, compliance, and experiences with care. While it is often frustrating when obviously untrained researchers conduct qualitative research (characterised by inadequate design and analysis, often resulting in unconsidered and poorly substantiated claims), your task as a peer reviewer is to be constructive and offer suggestions and feedback in the spirit of intellectual collaboration.

Being a “peer” reviewer implies an egalitarian, facilitating relationship. Provide substantive, constructive feedback that conveys authenticity and respect for authors’ work. Write as if you were giving feedback to the author face to face and be prompt in returning your review.

Illustrative examples of the peer review of qualitative manuscripts

To provide practical examples of the peer review of qualitative manuscripts, I assembled a convenience sample (from colleagues) of qualitative manuscripts published in leading journals in health sciences during the last two years and traced their prepublication history (see Table 15.2). I specifically looked for papers published in journals ranging in impact and varying with respect to their maintenance of codified qualitative research guidelines.² *BMJ* and *The Lancet* are high impact general journals that do not have explicit guidelines (*BMJ* has a list of questions), *Medical Decision Making* is a specialist journal without explicit guidelines, *Canadian Journal of Public Health* is a general health sciences journal with explicit guidelines, and *Qualitative Health Research* is a specialist qualitative journal with explicit guidelines. These illustrative examples will give us a general impression of what constitutes constructive feedback to qualitative authors.³

Lavery *et al.*'s paper on end of life decisions of HIV patients appeared in *The Lancet*.⁵² One reviewer commented on the limited attempts to ensure trustworthiness and requested clarification of whether

Table 15.2 Illustrative examples of peer review of qualitative manuscripts

Paper	Health science journal	Type	Guidelines	Examples of constructive feedback	Example of less constructive feedback
Lavery <i>et al.</i>	<i>The Lancet</i>	General	None	The trustworthiness activities appear limited in this study. Were results shared with subjects, counsellors..., or clinicians who care for patients with HIV?	The authors use vague descriptive terms such as "process was familiar to participants" "widely perceived as intolerable," etc. It would be very enlightening to have more precise description of how many, how frequently, etc. Qualitative research is great for stimulating debate and providing insights into people's thought, beliefs, and motivations. It can't really be used to produce anything formal that can be transferred reliably to a different setting and different group of people, particularly when a small and very specific sample is used.
Singer <i>et al.</i>	<i>BMJ</i>	General	List of questions	It is unclear to what extent the two investigators in addition to the primary analyst agreed or disagreed ... in the initial coding of the raw data; and how these disagreements were then handled	The results section seems to somewhat mix results and discussion. It would be more readable if the results were shown as analysed without the authors' interpretation, which can then be added to the discussion.
Hudak <i>et al.</i>	<i>Med Decis Making</i>	Specialist	None	Was coding performed on the basis of pre-identified themes or just obtained directly from the interviews? Please specify	

(Continued)

Table 15.2 (Continued)

Paper	Health science journal	Type	Guidelines	Examples of constructive feedback	Example of less constructive feedback
Steele <i>et al.</i>	<i>Can J Public Health</i>	General	Explicit criteria	There are not consistently clear associations drawn between reported findings and why these findings are particularly problematic for the immigrant and refugee population ... more than other inner city populations Although the authors mention ethical issues, they do not say whether they had ethical clearance to do this phenomenological study or whether they obtained consents from participants.	The researchers' understanding of the subject matter seems limited and needs to be strengthened ... the authors seemed to lack real understanding of health policy and immigrant and refugee matters. The writing styles work quite nicely. A little more attention could be applied to sequence of issues but for the most part the organisation works nicely.
Sinding <i>et al.</i>	<i>Qual Health Res</i>	Specialist	Explicit criteria		

Notes to Table 15.2

- I surveyed the top five (*New England Journal of Medicine*, *The Lancet*, *JAMA*, *Annals of Internal Medicine*, *BMJ*) and two additional international (*CMAJ*, *Medical Journal of Australia*) general medicine journals, as well as representative journals in the public health (*American Journal of Public Health*, *Canadian Journal of Public Health*) and social sciences (*Social Science & Medicine*, *Sociology of Health & Illness*). *BMJ*, *CJPH*, and *SH&I* have explicit guidelines.
- This illustration was not designed to comment on the appropriateness of qualitative guidelines. Indeed, *The Lancet* does not have guidelines but its review of Lavery *et al.*'s paper was comprehensive and clearly conducted by experienced reviewers, consistent with Sinding *et al.*'s peer review at *Qualitative Health Research* which does have explicit criteria.
- Keep in mind these are papers which found a home in health sciences journals and reviews were largely complementary. For a discussion of rather wicked (or at least uninformed) reviews – which may more closely approximate the reality of qualitative authors submitting to medical journals – refer to Martin *et al.*⁵¹ in which peer reviews of qualitative manuscripts on end-of-life care are dissected.

member checking among the HIV community was conducted. This is an appropriate technique for enhancing rigour of the findings, particularly when they derive from a community-based research project. A less helpful comment was offered by the second reviewer who called for more “precise” quantification of findings. Rather than seeing these as “vague” many qualitative researchers resist enumeration techniques because the purposive (non-random) sampling methods do not support it. Hence, the use of terms such as “frequently” or “widely”.

The republication history of Singer *et al.*'s *BMJ* study is available in full text on the web and offers the following insights.⁵³ The reviewer asked for clarification about the outcomes of investigator triangulation, that is, the extent to which the two analysts agreed on codes and categories and how these were handled. This is an appropriate comment which acknowledges that it is not sufficient to say merely that the research was triangulated; instead, it must be clear how this was done and how conflicts were managed. A less helpful comment came from the editorial committee which offered a rather narrow (albeit typical) conception of the contribution of qualitative research to the health sciences. But it is only one position. Other positions concur that qualitative research is indeed great for stimulating debate and providing insight, but can also offer rich detail and explanations of phenomena that are not well understood. This is also a good example of the confusion about generalisability, which does not derive from the representativeness of the sample, but from the resonance and applicability of the findings to other settings and contexts.^{5,6}

Hudak *et al.*'s paper appeared in *Medical Decision Making*.⁵⁴ One reviewer asked for clarification on whether codes were predetermined themes or emerged from the data. This is a very common criticism of qualitative research reports and easily rectified. The less helpful comment referred to the mixing of results and discussion sections of qualitative papers and a desire for the results to be presented “without the authors' interpretation”. As mentioned earlier, qualitative data collection and analysis are typically iterative and so interpretation of results begins early and is evolving. In other words, the results and the interpretation of data are “one and the same”. As a result, many qualitative manuscripts will present a different rendition on the conventional scientific report by combining the reporting of results and discussion.

Steele *et al.*'s manuscript⁵⁵ was subjected to an explicit set of criteria for the peer review of qualitative manuscripts. Analytic integrity was questioned: how were the findings relevant or important to the target population? More detail was requested and warranted. A less helpful (and rather condescending) comment concerned a perception that the authors lacked knowledge of their subject matter. As is the

experience of many qualitative researchers, these authors clearly struggled to meet all reporting standards while staying within the 2000 word limit of the journal. Thus, a more robust discussion that would have meaningfully integrated the qualitative findings, the existing literature, and the authors' understanding of immigrant and refugee health was limited.

Sinding *et al.*'s paper in *Qualitative Health Research*⁵⁶ was also reviewed using explicit criteria. A constructive comment that affirms the importance of ethical considerations in qualitative research came from one reviewer who asked for additional clarification and detail. A less helpful observation (though by no means inappropriate) was offered by another reviewer who suggested the writing style was "quite nice", but failed to offer substantive feedback on how it could be improved. In addition, the reviewers' comments remind us to carefully edit our reports before sending them back to the journal.

Future directions

The challenges faced by peer reviewers when assessing qualitative manuscripts will undoubtedly be reduced as editors and the broader research communities come to terms with what high quality qualitative research is, and how it should be published. This may involve a relaxation of word count restrictions in the health sciences literature or development of unique ways to present lengthy qualitative methods and data. As an example, the *BMJ*'s innovation of ELPS (electronic long, paper short) may be an appropriate system to facilitate the publication of qualitative health science. It is not yet clear what is the best way forward for manuscript submission and peer review. The quality of the qualitative research is potentially compromised by misguided and uninformed (albeit well intentioned) peer review demands. We should therefore continue to explore rigorous and novel ways to assess and publish qualitative manuscripts in the health sciences.

References

- 1 Green J, Britten N. Qualitative research and evidence based medicine. *BMJ* 1998;**316**:1230-2.
- 2 Greenhalgh T, Taylor R. How to read a paper: Papers that go beyond numbers (qualitative research). *BMJ* 1997;**315**:740-3.
- 3 Boulton M, Fitzpatrick R, Swinburn C. Qualitative research in health care: II. a structured review and evaluation of studies. *J Eval Clin Pract* 1996;**2**:171-9.
- 4 Hoddinott P, Pill R. A review of recently published qualitative research in general practice. More methodological questions than answers? *Fam Pract* 1997;**14**:313-9.
- 5 Green J. Commentary: generalisability and validity in qualitative research. *BMJ* 1999;**319**:421.

- 6 Popay J, Rogers A, Williams G. Rationale and standards for the systematic review of qualitative literature in health services research. *Qual Health Res* 1998;8:341–51.
- 7 Barbour RS. Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *BMJ* 2001;322:1115–7.
- 8 Lambert H, McKeivitt C. Anthropology in health research: from qualitative methods to multidisciplinary. *BMJ* 2002;325:210–3.
- 9 Giacomini MK, Cook DJ, for the Evidence-Based Medicine Working Group. Users' guide to the medical literature XXII. Qualitative research in health care A: are the results of the study valid? *JAMA* 2000;284:357–62.
- 10 Horgan A. *BMJ's* impact factor increases by 24%. *BMJ* 2002;325:8.
- 11 Bligh J. What happens to manuscripts submitted to the journal? *Med Educ* 1998;32:567–70.
- 12 *BMJ*. Qualitative research checklist. Available at <http://www.bmj.com/advice>
- 13 *Canadian Journal of Public Health*. Guidelines for *Canadian Journal of Public Health* reviewers. Available at <http://www.cpha.ca/english/cjph/review/quality/1.htm>.
- 14 Giacomini MK, Cook DJ, for the Evidence-Based Medicine Working Group. Users' guide to the medical literature XXIII. Qualitative research in health care B: what are the results and how do they help me care for my patients? *JAMA* 2000;284:478–82.
- 15 Malterud K. Qualitative research: standards, challenges, and guidelines. *Lancet* 2001;358:483–8.
- 16 Mays N, Pope C. Qualitative research: rigour and qualitative research. *BMJ* 1995;311:109–12.
- 17 Mays N, Pope C. Qualitative research in health care: assessing quality in qualitative research. *BMJ* 2000;320:50–2.
- 18 Milton Keynes Primary Care Trust. 10 questions to help you make sense of qualitative research. In: Critical Appraisal Skills Programme (CASP), 2002.
- 19 Qualitative Health Research. Manuscript review. Available at <http://www.ualberta.ca/~qhr/review.htm>.
- 20 Rowan M, Huston P. Qualitative research articles: information for authors and peer reviewers. *CMAJ* 1997;157:1442–6.
- 21 Sociology of Health and Illness. Guidelines for referees. Available at <http://www.blackwellpublishers.co.uk/journals/SHIL/submiss.htm>.
- 22 *Western Journal of Medicine*. Guidelines for reviewers. San Francisco, CA; 2001.
- 23 Blaxter M. BSA Medical Sociology Group criteria for the evaluation of qualitative research papers. *Med Soc News* 2000;26:343–7.
- 24 Wright JG, McKeever P. Qualitative research: its role in clinical research. *Ann RCPSC* 2000;33:275–280.
- 25 Keen J, Packwood T. Qualitative research: case study evaluation. *BMJ* 1995;311:444–6.
- 26 Jones J, Hunter D. Qualitative research: consensus methods for medical and health services research. *BMJ* 1995;311:376–80.
- 27 Kitinger J. Qualitative research: introducing focus groups. *BMJ* 1995;311:299–302.
- 28 Mays N, Pope C. Qualitative research: observational methods in health care settings. *BMJ* 1995;311:182–4.
- 29 Britten N. Qualitative research: qualitative interviews in medical research. *BMJ* 1995;311:251–3.
- 30 Bamberger M. Opportunities and challenges for integrating quantitative and qualitative research. World Bank, 2000.
- 31 Baum F. Researching public health: Behind the qualitative–quantitative methodological debate. *Soc Sci Med* 1995;40:459–68.
- 32 Brannen J. Combining qualitative and quantitative methods: An overview. In: Brannen J, ed. *Mixing methods: Qualitative and quantitative research*. Brookfield: Avebury, 1992:3–38.
- 33 Pope C, Mays N. Qualitative research: reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *BMJ* 1995;311:42–5.
- 34 Sofaer S. Qualitative methods: what are they and why use them? *Health Serv Res* 1999;34:1101–18.
- 35 Appleton J. Analysing qualitative interview data: addressing issues of validity and reliability. *J Adv Nurs* 1995;22:993–7.

- 36 Chapple A, Rogers A. Explicit guidelines for qualitative research: a step in the right direction, a defence of the 'soft' option, or a form of sociological imperialism? *Fam Pract* 1998;**15**:556–61.
- 37 Popay J, Williams G. Qualitative research and evidence-based healthcare. *J R Soc Med* 1998;**91**:32–7.
- 38 Meyer J. Qualitative research in health care: using qualitative methods in health related action research. *BMJ* 2000;**320**:178–81.
- 39 Pope C, Ziebland S, Mays N. Qualitative research in health care: analysing qualitative data. *BMJ* 2000;**320**:114–6.
- 40 Malterud K. The art and science of clinical knowledge: evidence beyond measures and numbers. *Lancet* 2001;**358**:397–400.
- 41 Hills M. Human science research in public health: the contribution and assessment of a qualitative approach. *Can J Public Health* 2000;**91**:1–4–1–7.
- 42 Penman-Aguilar A, Hall J, Artz L, *et al*. Presenting the female condom to men: a dyadic analysis of effect of the woman's approach. *Women & Health* 2002;**35**:37–51.
- 43 Risdon C, Cook DJ, Willms D. Gay and lesbian physicians in training: a qualitative study. *CMAJ* 2000;**162**:331–4.
- 44 Morgan D. *Focus groups as qualitative research*. London: Sage, 1998.
- 45 Campbell C, Mzaidume Z. Grassroots participation, peer education, and HIV prevention by sex workers in South Africa. *Am J Public Health* 2001;**91**:1978–86.
- 46 Braunack-Mayer AJ. What makes a problem an ethical problem? An empirical perspective on the nature of ethical problems in general practice. *J Med Ethics* 2001;**27**:98–103.
- 47 Bradley EH, Holmboe ES, Mattera JA, Roumanis SA, Radford MJ, Krumholz HM. A qualitative study of increasing beta-blocker use after myocardial infarction: why do some hospitals succeed? *JAMA* 2001;**285**:2604–11.
- 48 Morse J. Designing funded qualitative research. In: Denzin NK, Lincoln YS, eds. *Handbook of qualitative research*. Thousand Oaks: Sage, 1994:220–35.
- 49 Putnam W, Twohig PL, Burge FI, Jackson LI, Cox JL. A qualitative study of evidence in primary care: what the practitioners are saying. *CMAJ* 2002;**166**:1525–30.
- 50 Hartley SD, Wirz SL. Development of a 'communication disability model' and its implication on service delivery in low-income countries. *Soc Sci Med* 2002;**54**:1543–57.
- 51 Martin DK, Lavery JV, Singer PA. Qualitative research on end-of-life care: unrealized potential. In: van der Heide A, Onwuteaka-Phillipsen B, Emanuel EJ, van der Maas PJ, van der Wal G, eds. *Clinical and epidemiological aspects of end-of-life decision-making*. Amsterdam: Royal Netherlands Academy of Arts and Science, 2001:77–87.
- 52 Lavery JV, Boyle J, Dickens, DB, Maclean H, Singer PA. Origins of the desire for euthanasia and assisted suicide in people with HIV-1 or AIDS: a qualitative study. *Lancet* 2001;**358**:362–7.
- 53 Singer PA, Martin DK, Giacomini M, Purdy L. Priority setting for new technologies in medicine: qualitative case study. *BMJ* 2000;**321**:1316–8.
- 54 Hudak PL, Clark JP, Hawker GA, *et al*. You're perfect for the procedure, why don't you want it? Elderly arthritis patients' unwillingness to consider total arthroplasty surgery: a qualitative study. *Med Decis Making* 2002;**22**:271–7.
- 55 Steele LS, Lemieux-Charles L, Clark JP, Glazier RH. The impact of policy changes on the health of recent immigrants and refugees in an inner-city setting: a qualitative study of service providers' perspectives. *Can J Public Health* 2002;**93**:118–22.
- 56 Sinding C, Gray R, Fitch M, Greenberg M. Staging breast cancer, rehearsing metastatic disease. *Qual Health Res* 2002;**12**:61–73.