

Appendix I: Methodology checklist: qualitative studies¹

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|---|-----------------------------------|
| Study identification <i>Include author, title, reference, year of publication</i> | |
| Guidance topic: | Key research question/aim: |
| Checklist completed by: | |

| Section 1: theoretical approach | | |
|---|---|-----------|
| <p>1.1 Is a qualitative approach appropriate? <i>For example:</i></p> <ul style="list-style-type: none"> • Does the research question seek to understand processes or structures, or illuminate subjective experiences or meanings? • Could a quantitative approach better have addressed the research question? | <input type="checkbox"/> Appropriate <input type="checkbox"/> Inappropriate <input type="checkbox"/> Not sure | Comments: |
| <p>1.2 Is the study clear in what it seeks to do? <i>For example:</i></p> <ul style="list-style-type: none"> • Is the purpose of the study discussed – aims/objectives/research question(s)? • Is there adequate/appropriate reference to the literature? • Are underpinning values/assumptions/theory discussed? | <input type="checkbox"/> Clear <input type="checkbox"/> Unclear <input type="checkbox"/> Mixed | Comments: |

¹ This checklist is based on checklists in:

Spencer L, Ritchie J, Lewis J, Dillon L (2003) Quality in qualitative evaluation: a framework for assessing research evidence. London: Government Chief Social Researcher's Office. Available from: www.strategy.gov.uk/downloads/su/qual/downloads/qqe_rep.pdf

Public Health Resource Unit England (2006) Critical Appraisal Skills Programme (CASP) – making sense of evidence: 10 questions to help you make sense of qualitative research. Available from: www.phru.nhs.uk/Doc_Links/Qualitative%20Appraisal%20Tool.pdf

National Training and Research Appraisal Group (NTRAG); contact: www.ntrag.co.uk

British Sociological Association (BSA); contact: www.britsoc.co.uk

| Section 2: study design | | |
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| <p>2.1 How defensible/rigorous is the research design/methodology?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Is the design appropriate to the research question? • Is a rationale given for using a qualitative approach? • Are there clear accounts of the rationale/justification for the sampling, data collection and data analysis techniques used? • Is the selection of cases/sampling strategy theoretically justified? | <input type="checkbox"/> Defensible <input type="checkbox"/> Not defensible <input type="checkbox"/> Not sure | <p>Comments:</p> |
| Section 3: data collection | | |
| <p>3.1 How well was the data collection carried out?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Are the data collection methods clearly described? • Were the appropriate data collected to address the research question? • Was the data collection and record keeping systematic? | <input type="checkbox"/> Appropriate <input type="checkbox"/> Inappropriate <input type="checkbox"/> Not sure/ inadequately reported | <p>Comments:</p> |

| Section 4: validity | | |
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| <p>4.1 Is the role of the researcher clearly described?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Has the relationship between the researcher and the participants been adequately considered? • Does the paper describe how the research was explained and presented to the participants? | <p><input type="checkbox"/> Clear</p> <p><input type="checkbox"/> Unclear</p> <p><input type="checkbox"/> Not described</p> | <p>Comments:</p> |
| <p>4.2 Is the context clearly described?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Are the characteristics of the participants and settings clearly defined? • Were observations made in a sufficient variety of circumstances? • Was context bias considered? | <p><input type="checkbox"/> Clear</p> <p><input type="checkbox"/> Unclear</p> <p><input type="checkbox"/> Not sure</p> | <p>Comments:</p> |
| <p>4.3 Were the methods reliable?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Were data collected by more than one method? • Is there justification for triangulation, or for not triangulating? • Do the methods investigate what they claim to? | <p><input type="checkbox"/> Reliable</p> <p><input type="checkbox"/> Unreliable</p> <p><input type="checkbox"/> Not sure</p> | <p>Comments:</p> |

| Section 5: analysis | | |
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| <p>5.1 Is the data analysis sufficiently rigorous?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Is the procedure explicit – is it clear how the data were analysed to arrive at the results? • How systematic is the analysis – is the procedure reliable/dependable? • Is it clear how the themes and concepts were derived from the data? | <input type="checkbox"/> Rigorous <input type="checkbox"/> Not rigorous <input type="checkbox"/> Not sure/not reported | <p>Comments:</p> |
| <p>5.2 Are the data ‘rich’?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • How well are the contexts of the data described? • Has the diversity of perspective and content been explored? • How well have the detail and depth been demonstrated? • Are responses compared and contrasted across groups/sites? | <input type="checkbox"/> Rich <input type="checkbox"/> Poor <input type="checkbox"/> Not sure/not reported | <p>Comments:</p> |
| <p>5.3 Is the analysis reliable?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Did more than one researcher theme and code transcripts/data? • If so, how were differences resolved? • Did participants feed back on the transcripts/data? (if possible and relevant) • Were negative/discrepant results addressed or ignored? | <input type="checkbox"/> Reliable <input type="checkbox"/> Unreliable <input type="checkbox"/> Not sure/not reported | <p>Comments:</p> |
| <p>5.4 Are the findings convincing?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • Are the findings clearly presented? • Are the findings internally coherent? • Are extracts from the original data included? • Are the data appropriately referenced? • Is the reporting clear and coherent? | <input type="checkbox"/> Convincing <input type="checkbox"/> Not convincing <input type="checkbox"/> Not sure | <p>Comments:</p> |
| <p>5.5 Are the findings relevant to the aims of the study?</p> | <input type="checkbox"/> Relevant <input type="checkbox"/> Irrelevant <input type="checkbox"/> Partially relevant | <p>Comments:</p> |
| <p>5.6 Are the conclusions adequate?</p> | <input type="checkbox"/> Adequate | <p>Comments:</p> |

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| <p><i>For example:</i></p> <ul style="list-style-type: none"> • How clear are the links between data, interpretation and conclusions? • Are the conclusions plausible and coherent? • Have alternative explanations been explored and discounted? • Does this study enhance understanding of the research subject? • Are the implications of the research clearly defined? • Is there adequate discussion of any limitations encountered? | <input type="checkbox"/> Inadequate <input type="checkbox"/> Not sure | |
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| <p>Section 6: ethics</p> | | |
| <p>6.1 How clear and coherent is the reporting of ethical considerations?</p> <p><i>For example,</i></p> <ul style="list-style-type: none"> • Have ethical issues been taken into consideration? • Are ethical issues discussed adequately – do they address consent and anonymity? • Have the consequences of the research been considered; for example, raising expectations, changing behaviour? • Was the study approved by an ethics committee? | <input type="checkbox"/> Clear <input type="checkbox"/> Not clear <input type="checkbox"/> Not sure/not reported | <p>Comments:</p> |

Notes on use of Methodology checklist: qualitative studies

There is considerable debate over which quality criteria should be used to assess qualitative studies. Quality in qualitative research can be assessed using the same broad concepts of validity (or trustworthiness) used for quantitative research, but these need to be put in a different contextual framework to take into account the aims of qualitative research.

This checklist is designed for people with a basic understanding of qualitative research methodology, and is based on the broadly accepted principles that characterise qualitative research and that may affect its validity. The following notes provide suggestions for completing the checklist. A list of publications on qualitative research is provided at the end of these notes for further reading on this topic.

The studies covered by this checklist are those that collect and analyse qualitative data – usually (but not exclusively) textual (written), spoken or observational data. Qualitative data are occasionally collected using structured questionnaires (for example, as thematically organised free-text comments), but such research needs to be scrutinised carefully, as it may not meet acceptable quality criteria for consideration as a qualitative study.

The questions in the checklist are framed to encompass the variety of ways in which qualitative research is conducted. Care must be taken to apply the checklist in a way that matches the research methodology.

Note that the sub-questions given as examples under each question in the checklist are intended to highlight some of the key issues to be considered for that question – they are not intended to be exhaustive. Please add any additional considerations in the comments box.

Section 1: theoretical approach

This section deals with the underlying theory and principles applied to the research.

1.1 *Is a qualitative approach appropriate?*

A qualitative approach can be judged to be appropriate when the research sets out to investigate phenomena that are not easy to quantify or measure accurately, or where such measurement would be arbitrary and inexact. If clear numerical measures could reasonably have been put in place, then consider whether a quantitative approach may have been more appropriate.

Qualitative research in public health commonly measures:

- personal experiences (for example, of a condition, treatment or situation)
- processes (for example, action research, practitioner or patient views on the acceptability of using new technology)
- personal values and beliefs (for example, about death, birth, disability)
- interactions and relationships (for example, the quality of the GP–patient relationship, the openness of a psychotherapeutic relationship)

- service evaluations (for example, what was good or bad about patients' experiences of a smoking cessation group).

1.2 *Is the study clear in what it seeks to do?*

The design of qualitative research tends to be 'theory generative' rather than 'theory testing'; it is therefore unlikely that a research question will be found in the form of a hypothesis or null hypothesis in the way that you would expect in traditional quantitative research. Nevertheless, the paper should still set out early and clearly what the study is investigating and what the parameters are. The research question should be set in context by the provision of an adequate summary of the background literature and the study's underpinning values and assumptions.

Section 2: study design

This section considers the robustness of the design of the research project.

2.1 *How defensible/rigorous is the research design/methodology?*

There are a large number of qualitative methodologies, and a tendency in healthcare studies to 'mix' aspects of different methodologies or to use a generic qualitative method. From a qualitative perspective, none of this compromises the quality of the study as long as the following criteria are fulfilled:

- The research design should capture appropriate data and have an appropriate plan of analysis for the subject under investigation. There should be a clear and reasonable justification for the methods chosen.
- The choice of sample and sampling method should be clearly set out (ideally including any shortcomings of the sample) and should be reasonable. It is important to remember that sampling in qualitative research can be purposive and should not be random. Qualitative research is not experimental and does not purport to be generalisable, and therefore does not require a large or random sample. People are usually 'chosen' for qualitative research based on being key informers.

Section 3: data collection

3.1 *How well was the data collection carried out?*

Were the methods of data collection used the most appropriate, given the aims of the research? Was the data collection robust, and are there details of:

- how the data were collected?
- how the data were recorded and transcribed? (if verbal data)
- how the data were stored?
- what records were kept of the data collection?

Section 4: validity

Assessing the validity of qualitative research is very different from assessing that of quantitative research. Qualitative research is much more focused on demonstrating the causes of bias rather than eliminating them. It is therefore good practice to include sections in the report about the reflexive position of

the researcher (their 'role' in the research), the context in which the research was conducted and the reliability of the actual data.

4.1 *Is the role of the researcher clearly described?*

The researcher should have considered their role in the research; for example, as a reader, interviewer or observer. This is often referred to as 'reflexivity'. The 'status' of the researcher can profoundly affect the data. For example, a middle-aged woman and an 18-year-old man are likely to get different responses to questions about sexual activity when interviewing a group of teenage boys. It is important to consider age, sex, ethnicity and 'insider' status (such as where the interviewer or researcher is part of the group being researched or has the same condition or illness). The researcher can also profoundly influence the data by use of questions, opinions, judgements and so on, so it is important to know what the researcher's position is in this regard, and how the researcher introduced and talked about the research with the participants.

4.2 *Is the context clearly described?*

It is important when gauging the validity of qualitative data to engage with the data in a meaningful way, and to consider whether the data are plausible and realistic. To make an accurate assessment of this, it is important to have a good feeling for the context of the research in terms of the physical context (for example, youth club, GP surgery, gang headquarters) and who else was there (for example, participants are likely to position themselves very differently, and thus to respond very differently, in a discussion with parents present compared with a discussion with peers present). You should also feel that the participants are described in enough detail that the reader can have some sort of insight into their life and situation. Any potential context bias should be considered.

4.3 *Were the methods reliable?*

It is important that the method used to collect the data is appropriate for the research question, and that the data generated map well to the aims of the study. Ideally, more than one method should have been used to collect data, or there should be some other kind of system of comparison that allows the data to be compared. This is referred to as 'triangulation'.

Section 5: analysis

Qualitative data analysis is very different from quantitative analysis. This does not mean that it should not be systematic and rigorous; however, systematisation and rigour require different methods of assessment.

5.1 *Is the data analysis sufficiently rigorous?*

The main way to assess this is by how clearly the analysis is reported and whether the analysis is approached systematically. There should be a clear and consistent method for coding and analysing data, and it should be clear how the coding and analytical strategies were derived. Above all, these must be reasonable in light of the evidence and the aims of the study. Transparency is the key to addressing the rigour of the analysis.

5.2 Are the data 'rich'?

Qualitative researchers use the adjective 'rich' to describe data that are in-depth, convincing, compelling and detailed enough that the reader feels that they have achieved some level of insight into the research participants' experience. It is also important to know the 'context' of the data – where they came from, what prompted them, what they pertain to, and so on.

5.3 Is the analysis reliable?

The analysis of data can be made more reliable by setting checks in place. It is good practice to have sections of data coded by another researcher, or at least to have a second researcher check the coding for consistency. Participants may also be allowed to verify the transcripts of their interview (or other data collection, if appropriate). Negative or discrepant results should always be highlighted and discussed.

5.4 Are the findings convincing?

In qualitative research, the reader should find the results of the research convincing or credible. This means that the findings should be presented clearly and organised logically, they should not contradict themselves without explanation or consideration, and they should be clear and coherent.

Extracts from original data should be included where possible to give a fuller sense of the findings. These data should be appropriately referenced – although you would expect data to be anonymised, they still need to be referenced in relevant ways (for example, if gender differences were important, then you would expect extracts to be marked male/female).

5.5 Are the findings relevant to the aims of the study?

5.6 Are the conclusions adequate?

These sections are self explanatory.

Section 6: ethics

6.1 How clear and coherent is the reporting of ethical considerations?

All qualitative research involves ethical considerations, and these should be considered within any research report. Ideally there should be a full discussion of ethics, although this is rare because of space constraints in peer-reviewed journals. Important ethical issues that are raised by a particularly sensitive piece of research should be discussed in enough detail that the reader is convinced that every care was taken to protect research participants.

Any qualitative research should be approved by a research ethics committee, and this should be stated in the report.

Further reading

Barbour RS (2001) Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *British Medical Journal* 322: 1115–7.

Daly J, Willis K, Small R et al. (2007) A hierarchy of evidence for assessing qualitative health research. *Journal of Clinical Epidemiology* 60: 43–9.

The guidelines manual (appendices)

Mays N, Pope C (2000) Assessing quality in qualitative research. *British Medical Journal* 320: 50–2.

Miller G, Dingwall R, editors (1997) *Context and method in qualitative research*. London: Sage.