

# Developing a methodological framework for organisational case studies: a rapid review and consensus development process

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## Scientific summary

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# Scientific summary

## Background

'Case study' is commonly understood to be a method of research that engages in the close, detailed examination of a single example or phenomenon, and is an approach commonly used to understand activity and behaviour within a real-life context. Organisational case studies are concerned with an organised body of people with a particular purpose, such as a business, government department or charity group.

When conducted well, organisational case studies can provide insights into organisational changes in health care that are not easily achieved through other study designs. They can be used to identify facilitators and barriers to the delivery of services and to help understand the influence of context; high-quality organisational case studies have been used to examine ways of working in acute care, primary care, mental health services, residential care and across the NHS more broadly. Although good-quality studies will be funded and published, some organisational case study proposals submitted to the National Institute for Health Research (NIHR)'s Health Services and Delivery Research (HSDR) programme can be poorly articulated and methodologically weak, raising the possible need for publication standards in this area.

Reporting standards already exist for a range of study designs, including randomised trials, observational studies, systematic reviews, clinical case reports, qualitative research, realist syntheses, meta-narrative reviews, diagnostic/prognostic studies, quality improvement studies and economic evaluations. However, a search of the EQUATOR (Enhancing the QUALity and Transparency Of health Research) clearinghouse for reporting guidelines suggests that to date no such standards have been reported for organisational case studies.

## Objectives

To develop reporting standards for organisational case study research, with particular application to the UK NHS.

## Methods

The reporting standards were developed in three stages:

1. a rapid review of the existing literature to identify content
2. a modified Delphi consensus process to develop and refine content and structure
3. application of the high-consensus Delphi items to two samples of organisational case studies to assess their feasibility as reporting standards.

## Data sources

Relevant case studies and methods texts were identified through searches of library catalogues, key author searches, focused searching of health and social science databases and some targeted website searching.

## Participants

Experts and parties interested in the conduct of organisational case study research (methodologists, research funders, journal editors, interested policy-makers and practitioners) were approached to participate. Individuals were identified through the rapid review, personal contacts, and by contacting the following organisations: Health Services Research Network, the Social Research Association, the UK Evaluation Society and the National Centre for Research Methods.

## Review methods

Items for the Delphi were identified from the following texts:

- organisational case studies relating to an organised body of people with a particular purpose, such as a business, government department or charity group, identified from searches or from case study projects considered by HSDR as being of high quality
- methodological texts providing practical advice specific to the conduct of organisational case study research.

Two reviewers independently screened titles and abstracts, with disagreements resolved through discussion or consultation with a third reviewer. Data extraction was conducted by one reviewer and checked by a second.

Extracted items were deduplicated and classified into a provisional framework:

- planning and study design
- data collection
- data analysis
- reporting.

## Delphi consensus methods

The provisional framework and its constituent items were sent to the Delphi expert panel for rating.

The Delphi consisted of two rounds:

- In the first round, participants were presented with all the unique items identified from the rapid review. They were asked to rate each item as being 'essential', 'desirable' or 'not necessary' for the reporting of organisational case studies. Participants were also asked whether or not the provisional framework (grouping items into planning/design, data collection, analysis and reporting) in which items were presented was appropriate, and were given the opportunity to adapt this alongside the content.
- In the second round, participants received a restructured list of items incorporating feedback from the results of the first round. They were given the opportunity to identify the reporting items as being relevant to all, some or no organisational case studies.

In both rounds, the high-consensus threshold was set at 70% agreement among respondents for each item.

The list of items with high consensus after the second round was applied to previously identified case study publications in order to (1) determine the relevance of these items to the reporting of real-world organisational case studies and (2) better understand how the results of the Delphi consultation might best be implemented as a reporting standard.

## Results

An initial pool of 103 unique reporting items was identified from 25 methodological texts; eight example case studies (17 publications) and 12 exemplar case studies, which had been provided by the HSDR programme as examples of methodologically strong projects (16 publications), did not provide any additional unique items.

Of 36 experts invited to take part in the Delphi consensus process, 19 (53%) responded to the first round invitation. Fifteen respondents completed the entire round 2 questionnaire, 14 of whom had also taken part in the first round. The majority of respondents in round 1 were researchers (80%) with substantial experience of authoring or otherwise contributing to organisational case study research.

In the first round, 10 items met the predefined minimum 70% agreement level for being 'essential', with consensus ranging from 74% to 95%.

In the second round, a slightly greater proportion of respondents thought a reporting standard for reporting organisational case studies was desirable than did not, though several were uncertain. Others suggested that the usefulness of any standards would depend upon how and where they are applied. Respondents were similarly divided about whether or not a reporting standard would be feasible for organisational case studies.

Thirteen items were ultimately rated as 'should be reported for all organisational case studies' by at least 70% of respondents, with the degree of consensus ranging from 73% to 100%.

As a whole, exemplar case studies considered methodologically strong by the HSDR programme more consistently reported the high-consensus Delphi items than did case studies drawn from literature more broadly. Of eleven exemplar publications, six (55%) reported all 13 items, compared with just 3 out of 17 (18%) of the example organisational case study publications.

The high-consensus items were translated into a set of 13 reporting standards grouped into four sections:

- describing the design
- describing the data collection
- describing the data analysis
- interpreting the results.

**TABLE A** Consensus standards for the reporting of organisational case studies

Reporting item	Page number on which item was reported	Page number of justification for not reporting
<b><i>Describing the design</i></b>		
1. Define the research as a case study		
2. State the broad aims of the study		
3. State the research question(s)/hypotheses		
4. Identify the specific case(s) and justify the selection		
<b><i>Describing the data collection</i></b>		
5. Describe how data were collected		
6. Describe the sources of evidence used		
7. Describe any ethical considerations and obtainment of relevant approvals, access and permissions		
<b><i>Describing the data analysis</i></b>		
8. Describe the analysis methods		
<b><i>Interpreting the results</i></b>		
9. Describe any inherent shortcomings in the design and analysis and how these might have influenced the findings		
10. Consider the appropriateness of methods used for the question and subject matter and why it was that qualitative methods were appropriate		
11. Discuss the data analysis		
12. Ensure that the assertions are sound, neither over- nor under-interpreting the data		
13. State any caveats about the study		

## Conclusions

These reporting standards aim to improve the consistency, rigour and reporting of organisational case study research, thereby making it more accessible and useful to different audiences. These audiences include research sponsors, who need to make decisions about whether to fund proposed case studies; ethics and research advisory groups, who require clarity about the specific planned methods; peer reviewers, who need to be able to evaluate the robustness of a completed case study; and readers and policy-makers, who need to understand how the findings of an organisational case study might be interpreted and implemented.

The reporting standards themselves are intended primarily as a tool for authors of organisational case studies. They briefly outline broad requirements for rigorous and consistent reporting, without constraining methodological freedom. Implemented properly, these should facilitate peer review of organisational case studies and give greater confidence to the readers of this kind of research.

### *Implications for research*

These reporting standards should be included as part of the submission requirements for all organisational case studies seeking funding. Though these reporting standards do not mandate specific methods, if a reporting standard is not reported for legitimate methodological reasons, the onus is on the author to outline their rationale for the reader.

Final report manuscripts should be accompanied by a version of the reporting standards completed by the study author(s), and both documents should be made available to peer reviewers. Funding boards may want to collect feedback from users (including commissioners, authors, peer reviewers) in order to build engagement with the concept of reporting standards for organisational case studies and to collect evidence that could be used to evaluate and/or further refine these standards.

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