

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/325063376>

Reporting Qualitative Research: Standards, Challenges, and Implications for Health Design

Article in *HERD Health Environments Research & Design Journal* - May 2018

DOI: 10.1177/1937586718772615

CITATIONS

22

READS

1,888

1 author:



Kati Peditto

Perkins&Will

10 PUBLICATIONS 114 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Health Environments Research & Design Journal [View project](#)

Reporting Qualitative Research:
Standards, Challenges, and Implications for Health Design

Kathryn Peditto
Cornell University

Keywords: research methodology, qualitative research, SRQR, COREQ

Author Note

Kathryn Peditto, PhD Candidate, Department of Design and Environmental Analysis, Cornell University.

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. There are no potential conflicts of interest to report with respect to the research, authorship, and/or publication of this article.

Correspondence concerning this article should be addressed to Kathryn Peditto, Department of Design and Environmental Analysis, Cornell University, 4235 Martha Van Rensselaer Hall, Ithaca, NY 14850. Email: ksp66@cornell.edu.

The published version of this article is located at DOI: 10.1177/1937586718772615

Abstract

Objective: This methods column describes the existing reporting standards for qualitative research, their application to health design research, and the challenges to implementation. Intended for both researchers and practitioners, this article provides multiple perspectives on both reporting and evaluating high-quality qualitative research.

Background: Two popular reporting standards exist for reporting qualitative research – the Consolidated Criteria for Reporting Qualitative Research (COREQ) and the Standards for Reporting Qualitative Research (SRQR). Though compiled using similar procedures, they differ in their criteria and the methods to which they apply. Creating and applying reporting criteria is inherently difficult due to the undefined and fluctuating nature of qualitative research when compared to quantitative studies.

Conclusions: Qualitative research is expansive and occasionally controversial, spanning many different methods of inquiry and epistemological approaches. A “one-size-fits-all” standard for reporting qualitative research can be restrictive, but COREQ and SRQR both serve as valuable tools for developing responsible qualitative research proposals, effectively communicating research decisions, and evaluating submissions. Ultimately, tailoring a set of standards specific to health design research and its frequently-used methods would ensure quality research and aid reviewers in their evaluations.

Reporting Qualitative Research:
Standards, Challenges, and Implications for Health Design

In healthcare, practitioners and researchers alike employ qualitative studies to describe experiences, environments, and relationships, including those that may be otherwise difficult to capture using quantitative methods. Interviews and focus groups are key components of participatory design studies, while field observations and document analysis are frequently used during facility evaluations. In a review of scientific nursing journals, one out of every five studies involved qualitative methods (Yarcheski, Mahon, & Yarcheski, 2012). Though evidence-based design has its roots in quantitative data, it has been increasingly common to approach healthcare design issues from a mixed methods perspective (O’Cathain, 2009). As one example, quantitative patient data can be used to test a particular hypothesis while a narrative observation corroborates the results and provides the context required for effective translational research.

The Journal of the American Medical Association’s Evidence-Based Medicine Working Group proposed four essential aspects of qualitative analysis – relevant participants, suitable methods, comprehensive data collection, and appropriate analysis (Giacomini & Cook, 2000). No recommendations are made, however, to ensure researchers have adequately communicated these research decisions to potential reviewers or practitioners. Adhering to a set of criteria for reporting research is crucial to improving the overall quality of a research discipline. Reporting standards can be as much a tool for the researcher as for the evaluator and practitioner. While this has been customary in quantitative studies since the 1990s, it was only recently reporting recommendations were made for qualitative research.

Existing Reporting Standards for Qualitative Research

Standards often take the form of a checklist to be completed with a journal submission, allowing reviewers to quickly identify methodological issues and ensure adequate reporting. The now-ubiquitous QUOROM and CONSORT guidelines for randomized controlled trials were established for quantitative researchers in 1997 and 2001 respectively, but it was not for another decade qualitative research guidelines were widely adopted.

Several recommendations now exist for qualitative research, with most compiled using similar methods. Many standards are created by synthesizing journal guidelines, drawing from existing standards, and/or identifying recommendations from previous articles or textbooks. The Equator Network, an international initiative to improve transparency and reporting in health research, refers to two main guidelines for reporting qualitative research – the Consolidated Criteria for Reporting Qualitative Research (COREQ) and the Standards for Reporting Qualitative Research (SRQR). We will focus on COREQ and SRQR for the purpose of this column and audience, though it is important to note that this is not an exhaustive list of qualitative reporting guidelines.

Both tools are recommended for use during the submission process, even when not expressly required. Using COREQ or SRQR to identify opportunities for bias or poor communication allows researchers to identify gaps prior to evaluation. Even earlier, both tools have merit during the research proposal process – using the checklists to guide initial research design decisions can improve the transparency and quality of the final research product.

Consolidated Criteria for Reporting Qualitative Research (COREQ)

Recognizing the gap in reporting standards between quantitative and qualitative research, Tong, Sainsbury, and Craig (2007) created a checklist of items judged most important when

reporting results from interviews and focus groups. Known as COREQ (or the Consolidated Criteria for Reporting Qualitative Research), it was compiled from a set of 22 existing evaluative guidelines for qualitative research and divided into three domains: Research Team, Study Design, and Analysis and Findings. Though COREQ was designed by public health researchers, it has become a popular guideline beyond healthcare with a number of journals requiring COREQ checklist submission. This 32-item checklist asks researchers to identify within their submission aspects of the research team, design, or analysis that may indicate bias (or more likely, poor communication regarding research decisions). See Table 1 for an example of the COREQ checklist as used by a researcher with BMJ Open (Lotto, Smith, & Armstrong, 2017).

Standards for Reporting Qualitative Research (SRQR)

The SRQR differs from COREQ in both its construction and its application. While the COREQ is intended for interviews and focus groups (though some of the framework extends to other qualitative methods), the SRQR is an improved tool for a broader range of qualitative studies (O'Brien, Harris, Beckman, Reed, & Cook, 2014). This 21-item list was constructed from a set of 40 existing recommendations. The developers created an initial pool of items that appeared most frequently in these sources and created a final list after feedback from experts in qualitative research. In contrast, COREQ was constructed from a shorter set of items without consultation from outside researchers. The core concepts of the tools differ as well, with SRQR organizing the checklist into three domains: Methods, Results and Findings, and Discussion. Like COREQ, SRQR was developed by researchers in the health care field, but has been adapted by many other research disciplines. See Table 2 for a sample SRQR checklist.

Challenges

Qualitative studies can be categorized into several traditions, including narrative research, phenomenology, grounded theory, ethnographic studies, and case studies (Creswell, 2012). With such a breadth of principles and methods within each type of inquiry, a “one-size-fits-all” reporting standard may be restrictive. What may be a notable characteristic in a strictly narrative study may be less relevant in an ethnographic study, for example. COREQ has been criticized for this reason, as it has an orientation towards grounded theory which may make research from other approaches appear inadequate. As one example, COREQ has an emphasis on coding and theme development with less concern for contextualization (Buus & Agdal, 2013).

Other challenges arise when considering the broader epistemological controversies in qualitative research. Though the merit of these arguments could be debated at length in a future article, there still exists a divergence between researchers regarding the importance of validity, reliability, and generalizability in qualitative research (Cohen & Crabtree, 2008; Mays and Pope, 2000). While these are the hallmarks of quantitative research (and are reflected in reporting standards, as such), it is challenging to establish reporting recommendations for qualitative research when the epistemological foundation for quality research is still debatable.

Within a specific discipline, however, it may be appropriate (and even valuable) to apply a set of recommendations to ensure quality research and assist evaluators. Since most standards are comprised of criteria from existing literature or journal guidelines, it would be possible to examine both the most frequently used methods of inquiry and the most high-impact outcomes in order to tailor reporting recommendations. As design research and environmental psychology are still in their relative infancy, a “custom” set of reporting recommendations would improve both the quality of research design, the ability for reviewers to evaluate submissions, and the

cohesiveness of the discipline as a whole. Experts in qualitative research have supported the notion of purpose-specific, adaptive criteria allowing for different epistemological approaches within a certain topic (Hannes, Heyvaert, Slegers, Vandenbrande, & Van Nuland, 2015).

Arguably, reporting standards are most imperative in fields that combine methods from multiple disciplines and encourage applied research that may be less rigorous. Rather than being restrictive, a set of well-informed criteria could provide guidance for new researchers interested in qualitative work while ensuring practitioners can be confident in their interpretation of research findings. Care must be taken by editors and reviewers, however, to view a completed COREQ or SRQR (or other) checklist not as confirmation of high-quality work, but rather as a useful tool for identifying weaknesses within a submission.

Conclusion

Though multiple sets of recommendations exist for qualitative researchers, there are an even greater number of principles and practices surrounding qualitative research. Requiring all researchers adhere to one standard is restrictive for such an expansive field. In health design research, COREQ and SRQR both provide a valuable checklist for researchers to ensure their decisions were communicated effectively and for evaluators to identify poorly supported decisions. Using guidelines when preparing an initial proposal will also assist researchers in designing high-impact qualitative studies. As health design continues to attract more researchers, a discipline-specific set of guidelines may eventually prove valuable to ensure consistency across methods and improve the translational quality of research as a whole.

For readers interested in learning more about reporting guidelines, the Equator Network provides a searchable database of guidelines by study type and clinical area at <https://www.equator-network.org/reporting-guidelines/>.

References

- Buus, N., & Agdal, R. (2013). Can the use of reporting guidelines in peer-review damage the quality and contribution of qualitative health care research? *International Journal of Nursing Studies*, 50(10), 1289–1291. <https://doi.org/10.1016/j.ijnurstu.2013.02.012>
- Cohen, D. J., & Crabtree, B. F. (2008). Evaluative criteria for qualitative research in health care: Controversies and recommendations. *Annals of Family Medicine*, 6(4), 331–339. <https://doi.org/10.1370/afm.818>
- Creswell, J. (2012). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Giacomini, M. K., & Cook, D. J. (2000). Users' guides to the medical literature XXIII: Qualitative research in health care A. Are the results of the study valid? *JAMA*, 284(3), 357-362. <https://doi.org/10.1001/jama.284.3.357>
- Hannes, K., Heyvaert, M., Slegers, K., Vandenbrande, S., & Van Nuland, M. (2015). Exploring the potential for a consolidated standard for reporting guidelines for qualitative research: An argument Delphi approach. *International Journal of Qualitative Methods*, 14(4), 1-16. <https://doi.org/10.1177/1609406915611528>
- Lotto, R., Smith, L. K., & Armstrong, N. (2017). Clinicians' perspectives of parental decision-making following diagnosis of a severe congenital anomaly: a qualitative study. *BMJ Open*, 7(5), e014716. <https://doi.org/10.1136/bmjopen-2016-014716>
- Mays, N., & Pope, C. (2000). Qualitative research in health care: Assessing quality in qualitative research. *BMJ: British Medical Journal*, 320(7226), 50-52. <https://doi.org/10.1136/bmj.320.7226.50>

- O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: A synthesis of recommendations. *Academic Medicine*, *89*(9), 1245–1251. <https://doi.org/10.1097/ACM.0000000000000388>
- O'Cathain, A. (2009). Mixed methods research in the health sciences: A quiet revolution. *Journal of Mixed Methods Research*, *3*(1), 3–6. <https://doi.org/10.1177/1558689808326272>
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, *19*(6), 349–357. <https://doi.org/10.1093/intqhc/mzm042>
- Yarcheski, A., Mahon, N. E., & Yarcheski, T. J. (2012). A descriptive study of research published in scientific nursing journals from 1985 to 2010. *International Journal of Nursing Studies*, *49*(9), 1112–1121. <https://doi.org/10.1016/j.ijnurstu.2012.03.004>

Table 1

Consolidated Criteria for Reporting Qualitative Studies (COREQ): 32-Item Checklist

No. Item	Guide questions/description	Reported on Page #
Domain 1: Research team and reflexivity		
<i>Personal Characteristics</i>		
1. Inter viewer/facilitator	Which author/s conducted the inter view or focus group?	Page 7
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	Page 1
3. Occupation	What was their occupation at the time of the study?	Page 1 and 7
4. Gender	Was the researcher male or female?	Page 1
5. Experience and training	What experience or training did the researcher have?	Page 1
<i>Relationship with Participants</i>		
6. Relationship established	Was a relationship established prior to study commencement?	Page 7
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	Page 7
8. Interviewer characteristics	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	Page 7

Domain 2: study design		
<i>Theoretical Framework</i>		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	Page 1 and 7
<i>Participant Selection</i>		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	Page 6
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	Page 5 and 6
12. Sample size	How many participants were in the study?	Page 6
13. Non-participation	How many people refused to participate or dropped out? Reasons?	Page 6
<i>Setting</i>		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	Page 6
15. Presence of non-participants	Was anyone else present besides the participants and researchers?	Page 5 Inferred as one to one interviews
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	Page 6
<i>Data Collection</i>		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Additional file & page 7
18. Repeat interviews	Were repeat inter views carried out? If yes, how many?	No, inferred on page 7
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	Page 7
20. Field notes	Were field notes made during and/or after the inter view or focus group?	Page 8
21. Duration	What was the duration of the inter views or focus group?	Page 6
22. Data saturation	Was data saturation discussed?	Page 7
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	Page 7

Domain 3: analysis and findings		
<i>Data Analysis</i>		
24. Number of data coders	How many data coders coded the data?	Page 8
25. Description of the coding tree	Did authors provide a description of the coding tree?	Page 7 – OSOP
26. Derivation of themes	Were themes identified in advance or derived from the data?	Page 7
27. Software	What software, if applicable, was used to manage the data?	Page 7
28. Participant checking	Did participants provide feedback on the findings?	Page 7
<i>Reporting</i>		
29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	Page 8 to 16
30. Data and findings consistent	Was there consistency between the data presented and the findings?	Yes, there was. Page 8 to 18
31. Clarity of major themes	Were major themes clearly presented in the findings?	Yes. they were. From page 8 to 16
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Discussion of major and minor themes From page 16 to 20

Table 2

Standards for Reporting Qualitative Research (SRQR) Checklist

Title and abstract	Page/line no(s).
<p>Title - Concise description of the nature and topic of the study Identifying the study as qualitative or indicating the approach (e.g., ethnography, grounded theory) or data collection methods (e.g., interview, focus group) is recommended</p>	
<p>Abstract - Summary of key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results, and conclusions</p>	
Introduction	
<p>Problem formulation - Description and significance of the problem/phenomenon studied; review of relevant theory and empirical work; problem statement</p>	
<p>Purpose or research question - Purpose of the study and specific objectives or questions</p>	
Methods	
<p>Qualitative approach and research paradigm - Qualitative approach (e.g., ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g., postpositivist, constructivist/interpretivist) is also recommended; rationale**</p>	
<p>Researcher characteristics and reflexivity - Researchers’ characteristics that may influence the research, including personal attributes, qualifications/experience, relationship with participants, assumptions, and/or presuppositions; potential or actual interaction between researchers’ characteristics and the research questions, approach, methods, results, and/or transferability</p>	
<p>Context - Setting/site and salient contextual factors; rationale**</p>	
<p>Sampling strategy - How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g., sampling saturation); rationale**</p>	
<p>Ethical issues pertaining to human subjects - Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues</p>	
<p>Data collection methods - Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources/methods, and modification of procedures in response to evolving study findings; rationale**</p>	

Data collection instruments and technologies - Description of instruments (e.g., interview guides, questionnaires) and devices (e.g., audio recorders) used for data collection; if/how the instrument(s) changed over the course of the study	
Units of study - Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	
Data processing - Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymization/de-identification of excerpts	
Data analysis - Process by which inferences, themes, etc., were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale**	
Techniques to enhance trustworthiness - Techniques to enhance trustworthiness and credibility of data analysis (e.g., member checking, audit trail, triangulation); rationale**	

Results/findings

Synthesis and interpretation - Main findings (e.g., interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	
Links to empirical data - Evidence (e.g., quotes, field notes, text excerpts, photographs) to substantiate analytic findings	

Discussion

Integration with prior work, implications, transferability, and contribution(s) to the field - Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application/generalizability; identification of unique contribution(s) to scholarship in a discipline or field	
Limitations - Trustworthiness and limitations of findings	

Other

Conflicts of interest - Potential sources of influence or perceived influence on study conduct and conclusions; how these were managed	
Funding - Sources of funding and other support; role of funders in data collection, interpretation, and reporting	

*The authors created the SRQR by searching the literature to identify guidelines, reporting standards, and critical appraisal criteria for qualitative research; reviewing the reference lists of retrieved sources; and contacting experts to gain feedback. The SRQR aims to improve the transparency of all aspects of qualitative research by providing clear standards for reporting qualitative research.

**The rationale should briefly discuss the justification for choosing that theory, approach, method, or technique rather than other options available, the assumptions and limitations implicit in those choices, and how those choices influence study conclusions and transferability. As appropriate, the rationale for several items might be discussed together.