



# Methods and Meanings: Credibility and Trustworthiness of Qualitative Research

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Historically, qualitative research has been viewed as “soft” science and criticized for lacking scientific rigor compared to quantitative research, which uses experimental, objective methods (Mays & Pope, 1995). Common criticisms are that qualitative research is subjective, anecdotal, subject to researcher bias, and lacking generalizability by producing large quantities of detailed information about a single, unique phenomenon or setting (Koch & Harrington, 1998). However, qualitative research is not inferior research, but a different approach in studying humans. Qualitative research emphasizes exploring individual experiences, describing phenomenon, and developing theory (Vishnevsky & Beanlands, 2004).

A major challenge for researchers is striving for the highest possible quality when conducting and reporting research. As evidence-based professionals, nurses must be able to assess strengths, limitations, and quality or scientific merit of a study when reviewing the literature. Because quantitative and qualitative research differ in methodologic approach, different criteria exist in regard to critiquing each. The perspectives of quantitative research are rigor and validity, and the perspectives of qualitative research are credibility and trustworthiness. This article will present criteria for evaluating quality in qualitative research as proposed by Lincoln and Guba (1985) and Whittemore, Chase, and Mandle (2001); strategies to enhance credibility; and examples used by Pedersen, Hack, McClement, and Taylor-Brown (2013), who explored the patient navigation role from the perspective of young women with breast cancer.

The most common criteria used to evaluate qualitative research are those purported by Lincoln and Guba (1985).

To develop trustworthiness in qualitative research, Lincoln and Guba (1985) initially presented four criteria: credibility, dependability, confirmability, and transferability. In 1994, Guba and Lincoln added a fifth criterion, authenticity.

## Credibility

Credibility refers to the truth of the data or the participant views and the interpretation and representation of them by the researcher (Polit & Beck, 2012). Credibility is enhanced by the researcher describing his or her experiences as a researcher and verifying the research findings with the participants. A qualitative study is considered credible if the descriptions of human experience are immediately recognized by individuals that share the same experience (Sandelowski, 1986). To support credibility when reporting a qualitative study, the researcher should demonstrate engagement, methods of observation, and audit trails.

## Dependability

Dependability refers to the constancy of the data over similar conditions (Polit & Beck, 2012; Tobin & Begley, 2004). This can be achieved when another researcher concurs with the decision trails at each stage of the research process. Through the researcher’s process and descriptions, a study would be deemed dependable if the study findings were replicated with similar participants in similar conditions (Koch, 2006).

## Confirmability

Confirmability refers to the researcher’s ability to demonstrate that the data represent the participants’ responses and not the researcher’s biases or viewpoints

(Polit & Beck, 2012; Tobin & Begley, 2004). The researcher can demonstrate confirmability by describing how conclusions and interpretations were established, and exemplifying that the findings were derived directly from the data. In reporting qualitative research, this can be exhibited by providing rich quotes from the participants that depict each emerging theme.

## Transferability

Transferability refers to findings that can be applied to other settings or groups (Houghton, Casey, Shaw, & Murphy, 2013; Polit & Beck, 2012). A qualitative study has met this criterion if the results have meaning to individuals not involved in the study and readers can associate the results with their own experiences. Researchers should provide sufficient information on the informants and the research context to enable the reader to assess the findings’ capability of being “fit” or transferable. However, the criterion of transferability is dependent on the aim of the qualitative study and may only be relevant if the intent of the research is to make generalizations about the subject or phenomenon (Sandelowski, 1986).

## Authenticity

Authenticity refers to the ability and extent to which the researcher expresses the feelings and emotions of the participant’s experiences in a faithful manner (Polit & Beck, 2012). By reporting in this descriptive approach, readers grasp the essence of the experience through the participant quotes.

Whittemore et al. (2001) proposed primary and secondary validity criteria for critiquing qualitative research. Primary criteria include credibility, authenticity, criticality, and integrity, with credibility

and authenticity being similar to the criteria proposed by Lincoln and Guba (1985). Criticality refers to the researcher's decision process and critical appraisal of the evidence and interpretations. Integrity refers to critical reflection to uphold valid interpretations of the data.

## Secondary Criteria

Secondary criteria provide additional benchmarks of validity that are not relevant to every study, but allow for flexibility and application to particular investigations (Whittemore et al., 2001). These include explicitness, vividness, creativity, thoroughness, and congruence. Explicitness is similar to auditability, and refers to the maintenance of explicit records and decision trails used by the researcher. Vividness encompasses the presentation of rich, thick descriptions that are vivid and artful. Creativity challenges traditional ways of thinking and demonstrates novel methodologies that enhance findings while remaining grounded in the scientific process. Thoroughness refers to adequate sampling and data saturation that result in a full exploration of the phenomenon. Lastly, congruence refers to the connectedness between the research question and the method, between the data collection and analysis, between the current study and previous literature, and between the findings and the implications of the study.

## Enhancing Credibility and Trustworthiness

Specific strategies can be employed by the researcher to address those multiple criteria. Strategies performed in each phase of the research process not only attain the criteria, but also enrich the credibility and trustworthiness of the study (Polit & Beck, 2012).

Triangulation is the process of using multiple sources to draw conclusions (Casey & Murphy, 2009). With methods triangulation, the researcher uses multiple methods of data collection in an attempt to gain an articulate, comprehensive view of the phenomenon. Methods of data collection can include interviews, observation, and notes and journaling recorded throughout the research process.

Thorough data collection and fieldwork are essential when conducting qualitative research. Researcher strategies that facilitate this process include prolonged

engagement, persistent observation, and reflexivity (Houghton et al., 2013; Lincoln & Guba, 1985). Prolonged engagement is the process of building trust and rapport with informants to foster rich, detailed responses. The researcher can promote this process by allowing adequate time in collecting data and obtaining an understanding of the people and phenomenon of the study. Prolonged engagement provides scope; however, persistent observation (the researcher's attention to the feelings or emotions of the informant or situation being studied) provides depth to the study (Lincoln & Guba, 1985). Reflexivity is the awareness that the researcher's values, background, and previous experience with the phenomenon can affect the research process. The researcher conducting qualitative research is considered the research instrument and must avoid researcher bias. One way the researcher can address this issue is to maintain a reflexive journal to reflect and note thoughts and feelings in an effort to bracket perceptions and subjectivity (Mantzoukas, 2005; Polit & Beck, 2012).

Maintenance of an audit trail is a key strategy to enhance credibility of qualitative research (Ryan-Nicholls & Will, 2009). An audit trail is a collection of materials and notes used in the research process that documents the researcher's decisions and assumptions. The audit trail then can be reviewed by another individual to draw the same study conclusions. Examples of study materials include interview transcripts, data analysis and process notes, and drafts of the final report.

An important step in qualitative research that substantially enhances credibility is member checking. At completion of data analysis, the researcher communicates a summary of the themes that emerged and requests feedback or member check from the participants. Through this process, the informants should be able to validate the conclusions if the researcher has accurately interpreted the data.

The final step is reporting the strategies performed to supply evidence to the reader. By providing a description of the strategies and rich, vivid quotes from the participants, the reader can personally critique the credibility of the study and substantiate the interpretations.

In this issue of the *Oncology Nursing Forum*, Pedersen et al. (2013) provide excellent examples of strategies per-

formed to enhance credibility of their study. Criticality and thoroughness were validated by the detailed description of in-depth data analysis and repeated review of the transcripts, providing a process to achieve data saturation and breadth of understanding of the phenomenon. Confirmability and vividness were addressed through the use of thick, rich quotes that personified the emerging themes. To ensure accuracy of interpretations, an audit trail was maintained with the patient navigation development managers, and an experienced mentor was involved in the data analysis. Triangulation was confirmed through the use of multiple methods of data collection, including data from the interviews, the notes from the reflexive journal, and the scientific literature.

Since the 1970s, qualitative research has been augmenting the body of nursing knowledge. The nursing profession has been known as a science and an art, and qualitative inquiry brings a discovery of the emotions, experiences, and phenomena of patients as they travel through their cancer journey. The importance of this knowledge will be recognized and supported through the completion of qualitative research that uses strategies to enhance credibility.

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## References

- Casey, D., & Murphy, K. (2009). Issues in using methodological triangulation in research. *Nurse Researcher*, 16(4), 40–55. doi:10.7748/nr2009.07.16.4.40.c7160
- Guba, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Thousand Oaks, CA: Sage.
- Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2013). Rigour in qualitative case-study research. *Nurse Researcher*, 20(4), 12–17.
- Koch, T. (2006). Establishing rigour in qualitative research: The decision trail. *Journal of Advanced Nursing*, 53, 91–100.

- Koch, T., & Harrington, A. (1998). Reconceptualising rigour: The case for reflexivity. *Journal of Advanced Nursing*, 28, 882–890.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Mantzoukas, S. (2005). The inclusion of bias in reflective and reflexive research: A necessary prerequisite for securing validity. *Journal of Research in Nursing*, 10, 279–295. doi:10.1177/174498710501000305
- Mays, N., & Pope, C. (1995). Rigour and qualitative research. *BMJ*, 311, 109.
- Pederson, A.E., Hack, T.F., McClemon, S.E., & Taylor-Brown, J. (2013). An exploration of the patient navigator role: Perspectives of younger women with breast cancer. *Oncology Nursing Forum*, 41, 77–88. doi:10.1188/14.ONF.77-88
- Polit, D.F., & Beck, C.T. (2012). *Nursing research: Generating and assessing evidence for nursing practice*. Philadelphia, PA: Lippincott Williams and Wilkins.
- Ryan-Nicholls, K.D., & Will, C.I. (2009). Rigour in qualitative research: Mechanisms for control. *Nurse Researcher*, 16(3), 70–85.
- Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Science*, 8(3), 27–37.
- Tobin, G.A., & Begley, C.M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48, 388–396.
- Vishnevsky, T., & Beanlands, H. (2004). Qualitative research. *Nephrology Nursing*, 31, 234–238.
- Whittemore, R., Chase, S.K., & Mandle, C.L. (2001). Validity in qualitative research. *Qualitative Health Research*, 11, 522–537. doi:10.1177/104973201129119299

### Methods & Meanings

Methods and Meanings comments and provides background on the methodology used in one of the studies reported in the that month's issue of

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