Establishing the credibility of qualitative research findings: the plot thickens

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Qualitative research is increasingly recognized and valued and its unique place in nursing research is highlighted by many. Despite this, some nurse researchers continue to raise epistemological issues about the problems of objectivity and the validity of qualitative research findings. This paper explores the issues relating to the representativeness or credibility of qualitative research findings. It therefore critiques the existing distinct philosophical and methodological positions concerning the trustworthiness of qualitative research findings, which are described as follows: quantitative studies should be judged using the same criteria and terminology as quantitative studies; it is impossible, in a meaningful way, for any criteria to be used to judge qualitative studies; qualitative studies should be judged using criteria that are developed for and fit the qualitative paradigm; and the credibility of qualitative research findings could be established by testing out the emerging theory by means of conducting a deductive quantitative study. The authors conclude by providing some guidelines for establishing the credibility of qualitative research findings.

Keywords: qualitative research, representativeness, establishing credibility, nursing research

INTRODUCTION

Qualitative research is increasingly recognized and valued and its unique place in nursing research is highlighted by many (McKenna 1997, Benner & Wrubel 1989, Morse 1991, Denzin & Lincoln 1994). Despite this, some nurse researchers continue to raise epistemological issues about the problems of objectivity and validity of qualitative research findings (Altheide & Johnson 1994).

While much has been written about the psychometric properties of qualitative research (Andrews et al. 1996) a review of the literature uncovered a great deal of conflict and confusion. It is reasonable to suggest that dilemmas do exist concerning the appropriateness of qualitative research approaches for the generation of useful theories. Therefore, this paper proposes to explore the issues relating to the representativeness or credibility of qualitative research findings. A critique will be undertaken of the
commoner research methods and a rationale will be offered for the methods advocated by the authors.

THE PRINCIPAL POSITIONS OF ESTABLISHING THE CREDIBILITY OF QUALITATIVE RESEARCH FINDINGS

There exist distinct philosophical and methodological positions concerning the trustworthiness of qualitative research findings. Hammersley (1992) describes three such positions which can be summarized as follows:

- Qualitative studies should be judged using the same criteria and terminology as quantitative studies.
- It is impossible, in a meaningful way, for any criteria to be used to judge qualitative studies.
- Qualitative studies should be judged using criteria that are developed for and fit the qualitative paradigm.

A fourth position suggests that the credibility of qualitative research findings could be established by testing out the emerging theory by means of conducting a deductive quantitative study (Moody 1990, Cutcliffe 1995, McKenna 1997).

Each of these positions warrants examination in more detail.

Qualitative studies should be judged using the same criteria and terminology as quantitative studies

Cavanagh (1997) suggests that qualitative researchers should strive to achieve reliable and valid results. Furthermore, he goes on to argue that qualitative researchers should give consideration to three different types of validity, content, hypothesis and predictive. Cavanagh (1997) also attempts to develop arguments for using measures of stability to determine the credibility of qualitative research findings. Here Cavanagh (1997) is recommending that the rigour of qualitative research findings can be judged using criteria and terminology that have been constructed in order to test the validity of results obtained from quantitative studies.

Jasper (1994) and Appleton (1995) construct similar arguments and submit that since qualitative research methods are often criticized for failing to address issues of reliability and validity clearly, researchers cannot ignore these parameters. They ‘import’ these quantitative terms and then ‘translate’ them into terms more often associated with qualitative studies such as ‘truth value’. Therefore, by considering and addressing the ‘truth value’ of findings, researchers are addressing the inherent validity of their findings. Brink (1991) adopts a similar view when she argues that issues of validity are just as pertinent to qualitative research studies as they are to quantitative studies.

In considering these arguments, there is a need to examine the philosophical underpinnings of quantitative research approaches. A researcher who adopts a quantitative approach to the collection of data is viewing the world through a particular type of lens. The view suggests that the world can be explained and understood in terms of universal laws and objective truths (McKenna 1997). Its positivist and empiricist underpinnings suggest that there is only one reality and consequently a measure of the accuracy of this reality is its validity.

However, the qualitative researcher views the world through a very different lens. Key authorities on qualitative research point out that it is inappropriate to attempt to apply positivistic and empiricist views of the world to qualitative research (Benner & Wrubel 1989, Morse 1991, Denzin & Lincoln 1994). Qualitative research is based upon the belief that there is no one singular universal truth, the social world is multi-faceted, it is an outcome of the interaction of human agents, a world that has no unequivocal reality (Ashworth 1997b). It is concerned with describing, interpreting and understanding the meanings which people attribute to their existence and to their world.

Additionally, few would dispute that theory does not develop from empiricism alone (McKenna 1997). Carper (1978) described different ways of knowing: these were empirics, aesthetics, ethics and personal knowing. It is argued that these and the philosophical underpinnings of the research methods should influence the way the resulting theory/findings are tested for accuracy. Chinn and Kramer (1995) assert that because there are different ways of knowing, the resultant theories should not be tested using only those methods advocated by empiricists. In other words a qualitative study is likely to lack credibility if it is critiqued using positivistic criteria. It matters little if this is carried out overtly or in a more covert form by importing and subsequently translating quantitative terms.

We would argue that qualitative research findings should be tested for credibility or accuracy using terms and criteria that have been developed exclusively for this very approach. Leinenger (1994 p. 97) makes this point most clearly when she states:

We must develop and use criteria that fit the qualitative paradigm, rather than use quantitative criteria for qualitative studies. It is awkward and inappropriate to re-language quantitative terms.

Accepting this, it is unfortunate that the research literature still proliferates with authors attempting to establish the credibility of qualitative studies using synonyms for quantitative approaches (Appleton 1995). There are also a number of authors who criticize the credibility of qualitative studies using criteria meant for quantitative studies (Cavanagh 1997). Such practices are likely to
It is impossible, in a meaningful way, for any criteria to be used to judge qualitative studies

McKenna (1997) argues that some concepts within nursing are so abstract and nebulous that it is impossible to investigate these concepts using empirical measurements and consequently they lend themselves to qualitative enquiry. Nursing theories produced by such methods may well be too abstract to apply in practice. Their strength lies in making practitioners think about their practice in creative and interesting ways. This implies that some theories produced by qualitative methods may not lend themselves to having their credibility established due to the extent of their inherent abstraction.

Some critics argue that the essential reflexive character and subjectivity of qualitative studies renders them incomplete, non-objective, and consequently impossible to check for complete authenticity of their findings (Altheide & Johnson 1994). Schutz’s (1994) arguments follow a similar direction when she states that certain aspects of human experience cannot be accessed without the higher levels of awareness and consciousness that the researcher’s subjectivity can bring. Furthermore, because the meanings uncovered in such investigations are only verifiable by subjective means, the application of any criteria, however defined, is inappropriate (Nolan & Behi 1995a). Despite her argument Schutz (1994) admits that nursing research needs to establish credibility and this necessitates a ‘shared vision’ with other informants.

Hammersley (1992) disagrees with the argument that no criteria can be produced which can help to establish the credibility of qualitative research findings. He suggests that all qualitative researchers should make some efforts towards this goal, otherwise researchers could be ‘conjuring up’ concepts, propositions and theories entirely from their imagination which do not reflect the phenomenon or situation under investigation. This sounds very similar to the process of writing fiction and thus shouldn’t be described as research or science. Although, it should be noted that some qualitative researchers have compared qualitative research findings to stories or narrative tales (Clifford & Marcus 1985, Altheide & Johnson 1994). In essence, it is claimed that these researchers provide ‘texts’ which are in turn read and interpreted by the audience. The readers therefore construct their own meanings or readings from the text. However, Hammersley’s (1992 p. 69) argument is cogent. He asserts:

An account is valid or true if it represents accurately those features of the phenomena that it is intended to describe, explain or theorise.

McKenna (1997) supports this position, suggesting that whilst all ways of knowing should be respected, each must be subject to the rigour and analysis that knowledge requires. Altheide and Johnson (1994) adopt a similar position. They suggest that a critical question for qualitative researchers to consider is how should interpretative methodologies be judged by readers who share the same philosophical, epistemological and methodological underpinnings. They believe the answer to the question is that whilst qualitative researchers claim to interpret or make sense of social life, they must have a logic for assessing and communicating the interactive process through which the researcher acquired the information. They conclude (Altheide & Johnson 1994 p. 485):

If we are to understand the detailed means through which human beings engage in meaningful action and create a world of their own or one that is shared with others we must acknowledge that insufficient attention has as yet been devoted to evolving criteria for assessing the general quality and rigour of interpretative research.

Qualitative studies should be judged using criteria that are developed for and fit the qualitative paradigm

Qualitative researchers have identified a variety of approaches to judge the credibility of their findings. These warrant examination.

Burnard (1991) maintains that when researchers are generating patterns or themes from qualitative data, they can enhance the validity of the categorization method and guard against researcher bias by enlisting the assistance of a colleague. Both individuals then produce categories, independently of one another. Similarly other authors (Appleton 1995) suggest enlisting the assistance of an ‘experienced’ or ‘expert’ colleague to verify the data categorization, preferably one who is an expert in the area investigated.

This approach has several philosophical and epistemological difficulties. Firstly, since qualitative studies are normally indicated when there is an absence of theory pertaining to the specific phenomenon being studied, how likely is it that such ‘experts’ or ‘experienced colleagues’ will exist? Furthermore, what defines these individuals as ‘experts’ or ‘experienced colleagues’? What criteria have they been subjected to in order to determine the extent of their expertise or experience? If such individuals do exist, this leads to the second difficulty. The process of theory induction and the production of categories/themes depends upon the unique creative processes between the researcher and the data (Munhall & Boyd 1993, Schutz 1994). It is unlikely that two people will interpret the data in the same way, form the same categories/themes or concepts and produce the same theoretical framework. This is especially true if one researcher has been involved.
in every stage of the research process, including the data collection and data analysis stages, and the colleague has not. The main researcher’s in-depth familiarity with the data and the subjects’ world will undoubtedly affect the subsequent interpretation.

There is another potential problem with this approach. Enlisting the help of others to verify the categories/themes, somehow suggests that if more than one person thinks or agrees with the categorization, then this must be more accurate than one person’s categorization. If this argument is expanded, it begins to support the positivistic philosophy that there is only one accurate interpretation, only one reality, and that the accuracy of an interpretation is increased as the number of people agreeing increases.

A positive outcome of qualitative researchers sharing their interpretation with colleagues would be the opportunity it provides for challenging the robustness of the emerging categories/themes. For instance, there may be issues or patterns the researcher has missed which the colleague may highlight. Furthermore, through explaining the thinking behind choices made and the reasons for one line of enquiry and not another, the researcher can be assisted towards a more reasoned and complete interpretation.

Guba and Lincoln (1981, 1989) suggest another approach for establishing credibility for qualitative findings. They recommend that researchers leave an ‘audit trail’ so that the pathway of decisions made in the data analysis can be checked by another researcher. However, it is worth considering whether or not this method leaves any room for the ‘hunches’ or ‘felt sense’ of the emerging theory that can occur as the researcher becomes immersed in the data. Glaser and Strauss (1967) advocate the process of ‘memoing’, in that the researcher makes a note of key thoughts, hunches, and lines of enquiry during data collection. It follows that these memos could serve as a form of audit trail. Yet there may be times when no rational explanation for such lines of enquiry may exist. Indeed Meleis (1991) maintains that theories evolve from ideas, which in turn are a product of amongst others, hunches, intuitions and inspirations. Perhaps, just as Benner (1984) describes how expert nurse practitioners make decisions based on intuitive knowing, it follows that experienced (or expert) qualitative researchers make decisions during their data collection based on similar intuitive knowing, leaving them unable to articulate why they made such a decision. They only audit trail this would leave would be, ‘that it felt right to follow this line of enquiry’. This begs the question, do qualitative research findings uncovered as a result of following one’s intuition or hunches, that leave a limited audit trail, have less credibility than those findings that do?

Guba and Lincoln (1981, 1989) also write of neutrality, where researchers can minimize their subjectivity and thus maximize the credibility of the findings. This is based upon the notion that the researchers’ previous theoretical baggage would influence unduly the interpretations of the findings. When describing Husserlian phenomenological philosophy, Husserl (1964) describes a similar process. Husserlian philosophers and researchers using this form of phenomenology bracket their experience, judgement and beliefs out of their thinking and their studies to avoid these perceptions effecting the findings. Other authors (Rose et al. 1995, Jasper 1994) describe this process of bracketing, recognizing how one’s intentionality can be addressed in Husserlian phenomenological research processes. Andrews et al. (1996) describe a process for making explicit the researcher’s fore-understanding and Ashworth (1993, 1997b) holds the view that the credibility of the findings is increased if researchers first make explicit their pre-suppositions and acknowledge their subjective judgement. In essence good qualitative researchers account for themselves and show their hand in the research (Altheide & Johnson 1994).

Yet the value of such activities is not supported by all qualitative researchers. Researchers who base their beliefs on Heideggerian phenomenological philosophy (Heidegger 1962), such as Walters (1995), Benner (1984), Benner and Wrubel (1989), and Schutz (1994), each describe the creative interpretation that researchers bring to a study, and that this interpretation can be made richer by immersing themselves in the subject’s world. As part of the subject’s world the researcher is thus better equipped to gain a more complete understanding of it. As Altheide and Johnson (1994) suggest, Heideggerian phenomenology always involves some part of the researcher in the induced theory.

According to Ashworth (1997a) the researcher’s involvement in the world of the participants can be paradoxical. It may support the credibility in that the actual, multi-dimensional social world tends to impose its meanings on the research and counters the researcher’s naive expectations. There is also the possibility that by interviewing and/or participant observation, the world and accordingly the lived experience of the researcher becomes more like that of the participants. This may reduce the possibility of the researcher constructing their own reality and not interpreting the participants’ reality. Consequently any interpretation is more representative of the participants’ reality. Alternatively, measures to increase objectivity, or maximize neutrality, may be thought necessary.

Therefore, attempting to judge the credibility of qualitative research findings by means of examining the extent of researcher neutrality, or the extent of intentionality evident in the research, may be valuable for some qualitative approaches, but does not appear to be applicable to all approaches. What this does indicate is the need for clarity and precision regarding the specific qualitative approach being used. By being explicit the researcher then avoids
further confusion with issues of credibility or authenticity of findings and as a result can add to the overall quality of the research (Cutcliffe 1997).

With many qualitative approaches, where the researcher endeavours to gain an insight into the social world of the participants, there appears to be an empathic process occurring between the researcher and the participants (Benner & Wrubel 1989, Bergum 1991, Schutz 1994, Watters 1995). The leads the authors to consider the following questions, does the extent or level of the researcher’s empathy influence the authenticity of the findings? Would a more empathic researcher, one who is better equipped to enter into the participant’s view of the world and the meaning they ascribe to their world, gain a more complete, comprehensive, authentic interpretation of the participant’s world? Perhaps this is one reason why certain types of nurses gravitate towards these particular research methods. If so does this argument raise some training/educational implications for aspiring qualitative researchers? For example, should neophyte qualitative researchers receive training to develop their qualities and skills in being empathic and communicating empathy (Cassedy & Cutcliffe 1998)? If researchers with a greater empathic ability produce more truly representative interpretations, then it follows that a test of the credibility of the findings might include some assessment of the extent of empathy experienced by the participants.

Nolan and Behi (1995a p.589) identify another approach to establishing credibility in qualitative data. They maintain:

All criteria developed for use in qualitative studies rely heavily on presenting the results to those who were studied and asking them to verify whether or not they agree with them.

There is certainly evidence in the literature to support this statement with many authors advocating that the researcher return to the participants in order to verify the research findings (Guba & Lincoln 1981, Lincoln & Guba 1985, Turner 1981, Leininger 1994, Brink 1991, Ashworth 1993). However, even though few would dispute the value of this endeavour, there are still some issues worth exploring. An important question appears to centre around at what point in this process do the findings become credible? Should the researcher be concerned with each of the participants’ verification or only a proportion of them? Should the researcher try to reach the point where a participant verifies all of the concepts, categories or theory, or only a proportion of these?

These questions also appear to be moving towards positivistic concerns, in that ‘X%’ of the participants verified ‘Y%’ of the theory and ‘Z%’ offered no verification. It is somewhat unlikely that each interviewee will recognize and thus verify the representativeness of the entirety of the emerging theory as each of them will have contributed only a portion of the data. Therefore it is quite possible that some participants will not recognize some of the emerging theory. This point illustrates the need for the opportunity for some explanation back to the interviewees in order that their verification may be more complete. If one participant agrees the theory is representative, then one could argue it has credibility, but at the same time the researcher should make explicit where and how the respondents disagreed with the theory.

This difficulty can also be addressed by using the actual words of the participants (Glaser & Strauss 1967, Turner 1981, Melia 1982). If the emerging theory has captured the essence of the phenomenon or situation under investigation (representativeness) then the participants are likely to respond and recognize themselves in it, because it will have specific meaning for them. This is more likely to occur if the participants can recognize their own words.

In grounded theory data items are checked against one another repeatedly and compared and contrasted again and again. This provides a check on their representativeness (Munhall & Boyd 1993). A similar process can occur in phenomenology whereby the repeated reading of interview transcripts, and checking of one data item or theme against others can work as a check on their representativeness. By doing this distortions, inaccuracies and misinterpretations will be gradually discovered and resolved. Melia (1982) refers to the testing out/validation process that occurs in qualitative research where refining and checking the credibility of propositions, themes and categories that emerge in one interview can be verified in subsequent interviews. As a consequence, one of four responses can be obtained:

- The interviewee agrees with the authenticity of the data and the representativeness of the interpretation and adds nothing new (perhaps at this stage the categories have reached saturation) (Glaser & Strauss 1967).
- The interviewee agrees with the authenticity of the data and the representativeness of the interpretation and adds further refinement and understanding to the category. A crucial component of category development.
- The interviewee disagrees with the authenticity of the data and the representativeness of the interpretation redirects the researcher’s enquiry.
- The interviewee disagrees completely with the authenticity of the data and the representativeness of the interpretation and the researcher should completely rethink this line of enquiry.

Appleton (1995) argues that the process of triangulation increases the accuracy of qualitative research findings in that data from different sources can confirm the truth. Few would dispute that this is one of the principle benefits of triangulated methods (Redfern & Norman 1994, Begley
1996), however, if both sources of data provide inaccurate results, then all this method would do is confirm and support an inaccurate theory. If the triangulation of data produces inconsistent, conflicting or contradictory findings then this only adds to the researcher’s confusion. Smith and Biley (1997) assert that establishing truth value or representativeness can be attained using three types of triangulation:

- Triangulation by means of constant comparative method. If a label appears repeatedly then the researcher can be satisfied with its existence.
- Triangulation regarding the variety of data collection methods. If each method produces the same, then the truth value is increased.
- Triangulation regarding the variety of participants — the more people assert the importance of an issue, the more they can be trusted.

However, the authors would disagree with the value of this third type as again it appears to be underpinned by positivistic thinking and so is inappropriate for qualitative studies. Given these arguments, it appears that some forms of triangulation can help establish the credibility of qualitative research findings, yet if used as the only method, data triangulation could be regarded as inappropriate. Nonetheless, it has to be accepted that if data triangulation or other triangulation methods are used in conjunction with other attempts to illustrate representativeness, then it should lend credibility to the findings.

### Establishing the credibility of qualitative research findings by conducting a deductive study, testing out the emerging theory

The process of triangulation as a method of establishing the credibility of qualitative research findings leads logically to the fourth distinct position. This entails carrying out a deductive study to test out the credibility of an induced theory. Because such an approach involves combining strategies from two research paradigms in one study it could well be described as across-method triangulation (Begley 1996). Redfern and Norman (1994) suggest that a specific advantage of using a triangulated study in nursing relates to the increased confidence in the results and a more complete understanding of the domain. More recently, Nolan and Behi (1995b) support this argument suggesting that triangulated studies help with the confirmation and completeness of the research findings. Confirmability is concerned with using different methods or approaches in the same study in order that one set of results confirms those of another. Completeness is concerned with using different methods within one study in order to get a more complete picture that might not be achieved if one method alone were used. The authors argue that if a triangulated approach is used in conjunction with other attempts to establish credibility outlined above, then the researcher has made a thorough attempt to address issues of representativeness and credibility of their qualitative research findings.

### CONCLUSION

Guba and Lincoln (1981) maintain that qualitative data are credible when others can recognize experiences after having only read about them. Nonetheless, there is a strong case for undertaking more strenuous attempts to establish the credibility of qualitative research findings. This is essential if nursing wants to gain and maintain some credibility as a science (Schutz 1994). This paper argues that it is inappropriate to use quantitative terms as measures of credibility, either overtly or covertly by importing and translating such terms. Furthermore, since a blurred method can make establishing the credibility of the findings more difficult, it is in the researcher’s interest to make explicit what qualitative approach they have used. The researcher should also make explicit what attempts/methods they have used to establish the credibility of their data interpretations.

Careful consideration should be given to selecting methods of credibility testing as some might be more worthwhile than others. Researchers are encouraged to return to the participants and attempt to gain verification. This process may benefit from using the words of the participants in the emerging theory. Any findings that were not recognized by the participants should be identified and, in particular, if disagreements existed these should be reported. The researcher might find it worthwhile to combine several methods of checking, including some form of triangulation.

Finally, perhaps the most useful indicator of the credibility of the findings produced is when the practitioners themselves and the readers of the theory view the study findings and regard them as meaningful and applicable in terms of their experience.

### References


