Validity, trustworthiness and rigour: quality and the idea of qualitative research

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Aim. In this paper, I call into question the widely-held assumption of a single, more or less unified paradigm of 'qualitative research' whose methodologies share certain epistemological and ontological characteristics, and explore the implications of this position for judgements about the quality of research studies.

Background. After a quarter of a century of debate in nursing about how best to judge the quality of qualitative research, we appear to be no closer to a consensus, or even to deciding whether it is appropriate to try to achieve a consensus. The literature on this issue can be broadly divided into three positions: those writers who wish qualitative research to be judged according to the same criteria as quantitative research; those who believe that a different set of criteria is required; and those who question the appropriateness of any predetermined criteria for judging qualitative research. Of the three positions, the second appears to have generated most debate, and a number of different frameworks and guidelines for judging the quality of qualitative research have been devised over recent years.

Discussion. The second of the above positions is rejected in favour of the third. It argues that, if there is no unified qualitative research paradigm, then it makes little sense to attempt to establish a set of generic criteria for making quality judgements about qualitative research studies. We need either to acknowledge that the commonly perceived quantitative–qualitative dichotomy is in fact a continuum which requires a continuum of quality criteria, or to recognize that each study is individual and unique, and that the task of producing frameworks and predetermined criteria for assessing the quality of research studies is futile.

Conclusion. Some of the implications of this latter position are explored, including the requirement that all published research reports should include a reflexive research diary.

Keywords: epistemology, nursing, qualitative approaches, research methods, research paradigms, validity

Introduction: the quality muddle

The issue of quality in qualitative research has troubled nursing for at least a quarter of a century. As Sandelowski and Barroso (2002) have recently observed:

> Scholars across the practice and social science disciplines have sought to define what a good, valid, and/or trustworthy qualitative study is, to chart the history of and to categorize efforts to accomplish such a definition, and to describe and codify techniques for both ensuring and recognizing good studies. (p. 2)

However, they concluded that 'after all this effort, we seem to be no closer to establishing a consensus on quality criteria, or even on whether it is appropriate to try to establish such a consensus' (p. 2). Morse *et al.* (2002), starting from a diametrically opposed position, arrived at essentially the same conclusion when they wrote 'the literature on validity

has become muddled to the point of making it unrecognisable' (p. 4). I will argue in this paper that any attempt to establish a consensus on quality criteria for qualitative research is unlikely to succeed for the simple reason that there is no unified body of theory, methodology or method that can collectively be described as qualitative research; indeed, that the *very idea* of qualitative research is open to question.

For some writers, the credibility of nursing as a science depends on qualitative studies adopting the concepts and terminology of positivist research (Field & Morse 1985, Morse *et al.* 2002), such that 'there is nothing to be gained from the use of alternative terms which, on analysis, often prove to be identical to the traditional terms of reliability and validity' (Long & Johnson 2000, p. 30). For Morse *et al.*, validity and reliability are achieved when the researcher rigorously follows a number of verification strategies in the course of the research process:

> Together, all these verification strategies incrementally and interactively contribute to and build reliability and validity, thus ensuring rigor. Thus, the rigor of qualitative inquiry should be beyond question, beyond challenge, and provide pragmatic *scientific evidence* that *must* be integrated into our developing knowledge base. (Morse *et al.* 2002, p. 13, my emphasis)

This statement of intent exemplifies very strongly the aspiration of some qualitative researchers to the values, approaches, terminology, and hence, to the certainties of the 'hard' sciences. Rigour is clearly the key to success; if the verification strategies outlined by Morse *et al.* are followed in a rigorous fashion, the result will be *scientific* evidence that *must* be integrated into our knowledge base. Furthermore, they emphasize that the responsibility for ensuring rigour lies solely with the researchers themselves rather than with the readers of the research report.

Whilst Morse *et al.* see this as the dominant view of rigour in Europe, they bemoan the fact that the majority of writers in North America adopt a rather different and, in many ways, opposing position. This second view argues that the issues at stake in qualitative research are fundamentally different from those in quantitative research and require alternative terminology to describe different concepts (Koch & Harrington 1998). Thus, Sandelowski (1993) argued that issues of validity in qualitative studies should be linked not to 'truth' or 'value' as they are for the positivists, but rather to 'trustworthiness', which 'becomes a matter of persuasion whereby the scientist is viewed as having made those practices visible and, therefore, auditable' (p. 2). In an earlier paper, Sandelowski (1986) referred to this process of auditability as 'leaving a decision trail', so that the reader would be able to track and verify the research process. Clearly, this represents a fundamental shift in the responsibility for judgements of quality from the producer to the consumer of the research. A study is trustworthy if and only if the reader of the research report judges it to be so.

Trustworthiness has been further divided into *credibility*, which corresponds roughly with the positivist concept of internal validity; *dependability*, which relates more to reliability; *transferability*, which is a form of external validity; and *confirmability*, which is largely an issue of presentation (Lincoln & Guba 1985, Graneheim & Lundman 2004). However, Sandelowski (1993) regarded reliability/dependability as a threat to validity/credibility, and questioned many of the usual qualitative reliability tests such as member checking (returning to the participants following data analysis) or peer checking (using a panel of experts or an experienced colleague to re-analyse some of the data) as ways of ensuring that the researcher has analysed the data correctly. Whereas Guba and Lincoln (1989) regarded member checks as 'the single most critical technique for establishing credibility' (p. 239), Sandelowski (1993) argued that if reality is assumed (as it generally is within the qualitative paradigm) to be 'multiple and constructed', then 'repeatability is not an essential (or necessary or sufficient) property of the things themselves' (p. 3), and we should not expect either expert researchers or respondents to arrive at the same themes and categories as the researcher. Put simply, any attempt to increase reliability involves a forced or artificial consensus and conformity in the analysis of the data, which is usually at the expense of the validity or meaningfulness of the findings.

Sandelowski, therefore, rejected reliability as a useful measure of quality in qualitative research in favour of validity or trustworthiness. However, she was sceptical of the positivist notion that validity can be achieved by the rigorous application of method or technique, agreeing with Mishler (1990) that 'validation is less a technical problem than a deeply theoretical one', and is ultimately 'a matter of judgement' (Sandelowski 1993, p. 2). In this latter statement, she is approaching the third position on the issue of quality in qualitative research, that validity is achieved through consensus on each individual study rather than by the blanket application of predetermined criteria.

Quantitative and qualitative research paradigms

Hope and Waterman (2003) have recently articulated and summarized these three distinct positions in the ongoing debate: first, the adoption of positivist validity criteria for qualitative research; secondly, the establishment of distinct

and separate criteria from those adopted in quantitative research; and thirdly, a complete rejection of *all* predetermined criteria. They concluded that 'the application of criteria, however defined, is not clear, and confusion exists as to how judgements should be made about whether or not a standard has been reached' (p. 123). I wish to argue in this paper that the real issue is not about whether a universal standard for judging the validity of qualitative research has or has not been agreed, but rather, why so many different positions should remain not only viable but also fiercely contested. The answer, I would suggest, lies in our conceptions of what we take the term 'qualitative research' to mean, and particularly in the ways that we usually distinguish between the qualitative and quantitative research paradigms.

These distinctions are sometimes made solely on the type of data being collected, such that quantitative researchers gather numerical data whilst qualitative researchers are concerned with textual data (see, for example, Polit & Hungler 1995, p. 15). This is seen as over simplistic by some writers, who make the distinction on epistemological or even ontological rather than methodological grounds. So, for example, Powers and Knapp (1990) prefer to see the dichotomy in terms of an orientation towards a realist vs. an idealist view of the world, where realists believe that the world can be perceived more or less directly, whilst idealists argue that our perceptions of it are mediated through a series of distorting lenses and can only be known subjectively. Idealism is perhaps not the best term to use in opposition to realism in this case. Whereas realists posit a material world that exists independent of any observers, idealists argue that the world, in one way or another, exists only or fundamentally in our minds. A more apt opposition to realism is perhaps constructivism (Gergen 1999) or anti-realism (Okasha 2002), neither of which reject the idea of a 'real' world. In any case, proponents of this epistemological distinction often refer to the quantitative and qualitative research paradigms as positivism and interpretivism, reflecting the differing aims of research as, on the one hand, to directly perceive and measure the world, and on the other, to offer a more or less subjective interpretation of it.

While this is a more satisfying and useful way of distinguishing between opposing research paradigms, it is nevertheless problematic. Firstly, the quantitative/qualitative *methodological* distinction is often taken to be identical to the positivist/interpretivist *epistemological* distinction. The resulting alignment of quantitative research with positivism and qualitative research with interpretivism has led to a great deal of confusion in the debate over whether it is possible or desirable to mix methodologies within the same study (Morse 1991, Baker *et al.* 1992). If the terms 'qualitative' and 'quantitative' refer merely to data collection methods, then there is really very little at issue with mixed methodology studies. However, if the terms have a deeper epistemological or ontological significance, then real philosophical problems arise when we attempt to combine realism/positivism with constructivism/interpretivism. Thus, Baker *et al.* criticized such 'method slurring' even *within* the qualitative paradigm as undermining the credibility of the study, whilst Morse described it as a 'sloppy mishmash' which violated the assumptions of all the methods used. Furthermore, some quantitative researchers would not wish to be described as positivists, and whilst most qualitative researchers might be happy with being labelled as interpretivists, we shall see later that in fact many are simply reconstructed (post)positivists.

Secondly, not all research methodologies fit neatly into one or other of these two paradigms. Some writers add a third paradigm of critical theory (for example, Sarantakos 1993, p. 31), whilst others have regarded feminist research as a separate paradigm (for example, Roberts 1981, Stanley 1990). Nevertheless, when it comes to addressing questions of validity, it is usual to view 'qualitative research' as a single paradigm that encompasses all non-quantitative methodologies. This tendency to subsume all non-quantitative research under the single heading of 'qualitative' can be seen most clearly in qualitative research textbooks. For example, Morse and Field (1996) devoted an entire chapter of their text to the distinctions between qualitative and quantitative approaches, presenting them as two separate categories encompassing the entire spectrum of nursing research. Furthermore, in the course of the chapter they referred to the qualitative *approach*, *perspective*, *paradigm*, *methods*, *research*, *enquiry*, *findings*, *theory*, *researcher*, and *data* without making any clear-cut distinctions between these terms, further promoting the category of 'qualitative' as an homogenous and all-inclusive label.

Holloway and Wheeler (1996) began their textbook with a similar, albeit more sophisticated, chapter discussing the nature of qualitative research. This included a table showing the contrasts between the two traditions (p. 10), with qualitative research being described in terms such as *holistic*, *emic*, *contextualized*, *interpretive*, and *immersed*, in contrast to quantitative research, which was presented as having the opposite characteristics. Once again, this seeks to imply a unity of all non-quantitative methods and/or methodologies as sharing common beliefs and traditions in opposition to those of quantitative methodologies.

Munhall (2001) made a similar point in her textbook that the term 'qualitative research' encompasses a variety of designs and methods which have a number of common features such as a *holistic* approach, a focus on *human experience*, a sustained contact with *people in their natural*

setting, a high level of *researcher involvement* and the production of *descriptive and/or narrative data* (pp. 67–68). Streubert and Carpenter (1999) offered a similar list of characteristics of qualitative research (p. 15), claiming that they *all* apply across the board to *all* qualitative methodologies.

Arguably, however, the distinction between the qualitative and quantitative traditions, as presented in these and other texts, is not only over-simplistic, it is also misleading. Not only is the actual distinction between the so-called quantitative and qualitative traditions less clear-cut than these texts suggest, but not all qualitative methodologies share all of the above criteria. For example, Husserlian phenomenology is now an established and well respected methodology in nursing research. It is always and, in terms of data collection methods, quite rightly described as qualitative. It is also usually (and perhaps wrongly) described as emanating from the naturalist/interpretivist tradition, whereas in fact it has far more in common with positivism and/or postpositivism (for a detailed exposition of this argument, see Racher & Robinson 2002). Thus:

> The phenomenologic (sic) researcher asks the question: What is the *essence* of this phenomenon as experienced by these people? The phenomenologist assumes there is an essence that can be understood, in much the same way that the ethnographer assumes that cultures exist. The phenomenologist investigates subjective phenomena in the belief that essential truths about reality are grounded in people's lived experiences. (Polit & Hungler 1997, p. 203)

On first sight, this would appear to be a straightforward account of an interpretivist methodology, which is strengthened by comparisons with ethnography and references to 'subjective phenomena'. However, closer inspection will reveal certain positivist/realist assumptions such as a belief in 'essential truths about reality' to which the subject of the research has direct access, and which the researcher can uncover by 'bracket[ing] out the world and any presuppositions in an effort to confront the data in pure form' (Polit & Hungler 1997, p. 204).

This project of Husserlian phenomenology of coming to understand the 'essence' of a phenomenon is not dissimilar to Denzin and Lincoln's description of the positivist belief that 'there is a reality out there to be studied, captured, and understood' (Denzin & Lincoln 1998, pp. 8–9). Similarly, Powers and Knapp describe phenomenological methods of data analysis such as those offered by Colaizzi and Giorgi as 'consistent with views of what constitutes a scientific approach in the natural and social sciences' and as 'a slavish approach to prescribed techniques [which] compromises individuals' imaginative, interpretive styles' (Powers & Knapp 1990, p. 108). These methods of category analysis are founded on the assumption that the categories or 'essences' are somehow already lodged within the data, waiting for the objective researcher, who has bracketed all of her preconceived ideas, to uncover them. Hence, the common validation technique of asking an independent researcher to conduct a second analysis, with the expectation that she will uncover much the same set of categories. As Mays and Pope (1995) argued, rigour is achieved if 'another trained researcher could analyse the same data in the same way and come to essentially the same conclusions' (p. 110). However, we have seen that this 'peer check' was regarded by Sandelowski (1993) as 'one of the most important *threats* to phenomenological validity' (p. 2, my italics), and as antithetical to the naturalistic/interpretive paradigm.

We can see similar methodological rigour bordering on positivism in other methodologies that are usually labelled as interpretivist or naturalistic. For example, the model of grounded theory advocated by Strauss and Corbin (1990) follows a rigid method of data analysis which promises the production of an objective or 'essential' theory. Even some approaches to ethnography have a distinctly positivist flavour. Thus: 'The culture is turned into an object available for study…[and] it is possible to construct an account of the culture under investigation that captures it as external to, and independent of, the researcher; in other words, *as a natural phenomenon*' (Hammersley & Atkinson 1983, p. 8). In all of the above examples, it is assumed that there is an external world that is open to more or less objective scrutiny by the researcher, and whilst they all employ qualitative data collection methods, none fully subscribes to a constructivist philosophy. In fact, each shares a number of characteristics with (post)positivist research methodologies.

Furthermore, if we apply Munhall's 'common features' of qualitative research (as discussed earlier) to these methodologies, the criterion of holism is so loose as to apply to any or none of them; the focus on human experience might equally apply to some quantitative methods such as surveys or the administration of attitude scales; a sustained contact with people in their natural setting does not usually apply to phenomenology and might not apply to grounded theory; and descriptive and/or narrative data production might not apply to grounded theory, which is concerned with analytic theory building.

The idea of qualitative research

To return to the question of why issues of validity are so contested in qualitative/interpretivist/naturalistic research, it would appear that whichever terminology and criteria we use

to describe this paradigm, one or more of the so-called 'qualitative' methodologies will always fall partially outside of it. Neither the distinction *between* qualitative and quantitative paradigms nor the coherence and unity of the methodologies *within* the qualitative paradigm, is as clear cut as we have been led to believe. Rather than argue about which approach to validity we should employ for qualitative research studies, we should, therefore, recognize that it makes little sense to talk about 'qualitative' research either as completely distinctive and separate from 'quantitative' research or indeed as an inclusive term for what is no more than a disparate collection of largely unrelated methodologies. It would appear, then, that the *very idea* of qualitative research as an epistemologically or ontologically coherent paradigm is open to dispute.

Guba and Lincoln (1998) made a similar point when they argued that the term 'qualitative' should be reserved for a description of data collection methods and suggested the alternative paradigms of postpositivism, critical theory and constructivism. However, they were extremely vague when it came to identifying which methodologies might fall under which paradigm, hinting only that grounded theory might be considered as postpositivist and that hermeneutics is a form of constructivism. More importantly, they appeared to be uncomfortable with the idea of these alternate paradigms co-existing as equals, and looked towards 'a resolution of paradigm differences' through the emergence of a new paradigm 'that is more informed and sophisticated than any existing one' (p. 218). This view appears to be completely inconsistent with their self-proclaimed epistemological position as constructivists and (presumably) antifoundationalists, and represents merely another attempt to develop an overarching, all-inclusive paradigm for qualitative research.

More promisingly, Sandelowski and Barroso (2002) argued against 'epistemic criteria' for making judgements about qualitative research, claiming that the epistemological scope of qualitative methodologies was simply too broad to be represented by any single set of criteria. Instead, they advocated that qualitative research should be judged according to aesthetic and rhetorical considerations, pointing out that 'the only site for evaluating research studies – whether they are qualitative or quantitative – is the report itself' (p. 8). This conclusion stems from the observation that judgements are never directly about the research study itself, but only of the study *as it is represented in the report*, and that the report is 'a dynamic vehicle that mediates between researcher/writer and reviewer/reader, rather than a factual account of events after the fact' (p. 3). Furthermore, form and content are inseparable insofar as the form is usually determined by the publication medium (such as a scholarly journal), and content is shaped, pruned and reworked to fit the form.

Two important implications follow from these observations. First, judgements can only be made about the way that the research is presented to the reader rather than directly about the research itself, and as we have already seen, such judgements are predominantly aesthetic rather than epistemological. This prompts a shift to the criteria and language of literary criticism, and particularly to reader-response criticism (Tompkins 1980). In keeping with such a shift, Sandelowski and Barroso (2002) argued for a shift in terminology from 'evaluation' to 'appraisal', which is concerned with 'the exercise of wise judgement and keen insight in recognizing the nature and merits of a work' (p. 10). Appraisal of research is, therefore, subject to individual judgement based on insight and experience rather than on explicit predetermined criteria (although, perversely, Sandelowski and Barroso offer an extensive 16 page 'tick-box' guide for reading qualitative studies).

The second implication, mentioned only briefly by Sandelowski and Barroso, is that their criteria for appraising quality apply not only to *qualitative* studies, but also to *quantitative* research. This is in keeping with their proposed shift in focus from epistemological evaluation to aesthetic appraisal, which implies that the methodology and even the research paradigm within which the study is situated is of less relevance to judgements of quality than the way in which the study is written and presented. In some ways, the argument is therefore brought full-circle: traditional criteria-based guides for judging quality in qualitative research span the spectrum of methodologies because all are considered to share important methodological characteristics; Sandelowski and Barroso's guide spans the spectrum because epistemological differences are considered largely irrelevant to the business of making quality judgements.

Conclusion

I have argued in this paper that the continued failure to agree on universal criteria for judging quality in qualitative research is symptomatic of an inability to identify a coherent 'qualitative' research paradigm and that, in effect, such a unified paradigm does not exist outside of research textbooks. I also suggest that the distinction between the qualitative and quantitative paradigms is unhelpful, and (although not the focus of this paper) that the methodological problems identified here apply equally to quantitative research. This view clearly has a number of implications for the theory, practice and application of nursing research, which are briefly summarized below.

What is already known about this topic

- The term 'qualitative research' is usually employed as a generic description for a wide range of disparate research methods and methodologies.
- The past 25 years have witnessed a great deal of debate over how the judgement of quality in qualitative research should be approached.
- Whilst some writers argue that the same validity criteria should be used as for quantitative studies, others have sought to identify specific frameworks or lists of criteria specific to qualitative research.

What this paper adds

- Whilst the term 'qualitative research' might be used accurately to describe methods of data collection, it cannot adequately encompass the full range and diversity of 'non-quantitative' methodologies.
- It is counterproductive to continue to regard all qualitative research methodologies under a single 'interpretivist' or 'constructivist' paradigm.
- The search for a generic framework for assessing the quality of qualitative research should be abandoned in favour of individual judgements of individual studies.

- The term 'qualitative' should be restricted to descriptions of data collection methods rather than used to refer to a research paradigm or philosophy. There is no single paradigm which can accommodate all of the so-called qualitative methodologies, and each study should be justified on its own merits.
- Method(ology) slurring therefore ceases to be a problem, so long as the particular mix of methods or methodologies can be justified in the context of the study. Synthesis of already-analysed findings from different studies is also achievable on the understanding that each study presents a unique perspective on the topic under consideration. However, meta-analysis of 'raw' unanalysed data, even from studies originating from the same methodology, is problematic since there is no guarantee that the data would be compatible. Interestingly, Eysenck (1995) has raised the same issue for meta-analysis of quantitative data.
- The call by writers such as Morse to adopt the validity criteria of quantitative research should be resisted. Whereas Morse argued that it might be politically astute for qualitative researchers to aspire to the rigour of the 'hard' sciences, this paper argues that such rigour is illusory. It is, therefore, suggested that qualitative researchers devote their energy to *challenging* the notion of a universal set of quality criteria (whether qualitative *or* quantitative) rather than acquiescing to them.
- The quality of the research cannot be assured by the rigorous application of a set of previously agreed strategies and procedures. Along with Sandelowski and Barroso (2002) and Koch and Harrington (1998), I have argued here that the quality of a research study is not only *revealed* in the writing-up of that research, but also that it somehow *resides* in the research report, and is therefore, in Sandelowski's terminology, subject to the wise judgement and keen insight of the reader.
- Such judgements about the quality of research studies demand that the reader has some practical expertise in the research process, and that these appraisals cannot be made by novice researchers merely by following a set of critical guidelines or criteria such as are often offered to undergraduates and other beginning researchers. In essence, research is a practice much like nursing, and judgements about the *quality* of research can only be made from the perspective of the swampy lowlands of the *practice* of research and not from the high hard ground of the academy.
- Quality judgements entail a subjective 'reading' of the research text, and the responsibility for appraising research lies with the reader rather than with the writer of the report; with the consumer of the research rather than with the researchers themselves. This does not preclude the researchers from appraising the quality of their own work, but rather suggests that the readings of the researchers carry no more authority than those of the consumers of that research.

The position outlined in this paper clearly has implications for the way in which nursing research is presented for publication, and emphasises the importance of reflexivity. In effect, it behoves researchers to leave a 'super' audit trail, recounting not only the rationale underpinning the research decisions taken *en route*, and the *actual* course of the research process rather than the *idealized* version that the reader is usually presented with, but also, as Koch and Harrington (1998) advise, 'ongoing self-critique and self-appraisal', including the moral, social and political stance of the researchers themselves. This implies that all research reports, both qualitative and quantitative, need to be read in conjunction with a detailed reflexive research diary in order for their quality to be properly assessed, and that published research papers should include such a diary.

Hope and Waterman (2003) call for a reconceptualization of validity in qualitative research in the search for the most appropriate set of criteria. Perhaps it would be more fruitful to reconceptualize qualitative (and quantitative) research

itself. Rather than search for an overarching set of criteria by which to judge the validity of qualitative research, we should perhaps acknowledge that there is a multiplicity of (so-called) qualitative paradigms, each requiring very different approaches to validity. Or, put another way, there is *no* qualitative paradigm at all, so that each research methodology (and perhaps each individual study) must be appraised on its own merits.

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