



(Booth, 2010) and not always relevant to patient-derived experiential research.

Bellman (2005) noted that Government proposals outlining the future of health research in the United Kingdom gave virtually no recognition to nurses and was medicine-focused and led. This is reiterated in Canada, North America, Australia and New Zealand (Duffield et al., 2009; Salhani and Coulter, 2009). A number of nursing academics subsequently predicted that a profession led by a medically dominated strategy would disenfranchise all but a few nurses. Allowing for time, this paper asks if nursing is able to manage two competing discourses—one is which evidence is rigorous, moderated for bias and ranked 'highly', alongside the various types of evidence that is inappropriately deemed 'weaker' or 'lesser' (Morse, 2006). Operating in different or even discrete discourses means having the confidence to align oneself to a position, but it also involves (Bonner and Sando, 2008). Therefore, it seemed timely to undertake a study in which to provide an evidence base of the design and application of qualitative nursing research. The first problem however was finding a systematic way of capturing and organising the study's data. Had we asked what constitutes quality qualitative research, criteria against which to measure *quality* would be needed and this is not without severe limitations?

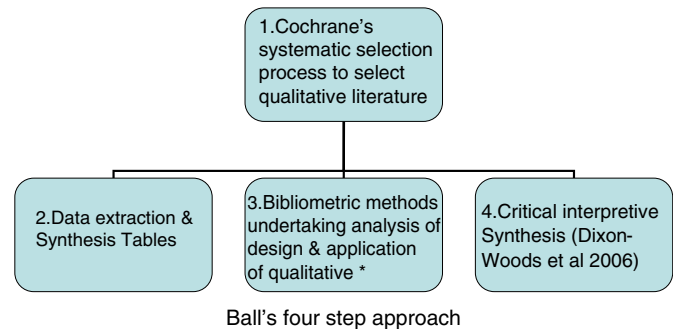
However, nursing needs to be confident in applying qualitative methods appropriately and with rigour (qualitative will be used from here to ellipse both methods/analysis). Although systematic literature reviews and criterion exist to evaluate the quality of qualitative methods in nursing (Walsh and Downe, 2006) it is challenging, if not improbable to use effectively the standard systematic literature review method, employing a quality evaluation extraction process, given the subjective probability of "qualitative". Indeed, this challenge was encountered by Walsh and Downe who constructed a quality "checklist" in which to evaluate the quality of qualitative. The main obstacle was how to construct a critical evaluation without making either vast generalisations or applying constrictions, which they overcame by adding several caveats to their general tick-box approach.

Qualitative's strength has always been in illuminating context, and therefore even if strict criteria were set for appraising a quality study, the contextual backdrop of each paper would create huge diversity and the difficulty of "mixing apples and oranges" (Yuan and Hunt pg. 1088, 2009); this is largely because qualitative is not a method of consensus, but a method of context. Given this, the challenge this study faced was to undertake a methodologically rigorous review that did not make judgement on the quality of the methods (as a systematic review would do) but identify how qualitative as a methods or analysis was being applied, what qualitative design was being used and, where possible, offer practitioners some quality control measures that would be contextually relevant, comprehensive and flexible.

## Method

Given the rising number of qualitative publications and plethora of potential literature, it was essential to match this study to the right methodology (Verhulst and Colliver, 2009). With a large study, a mixed method design often enhances the breadth and depth of the

material; in this case it was vital as data were large and diverse. It was a challenge to construct a methodology that was qualitative, rigorous and receptive to the heterogeneous data we wanted to capture. Therefore the paper produced from a diachronic and synchronic paradigm a new four-step methodological approach utilising the possibilities qualitative analysis can offer. The flow chart below outlines the methodological steps taken. Like many new approaches, the one set out in this paper draws upon theoretical elements that have been utilised elsewhere. The key difference is that the four parts making up this approach combine to produce an efficient systematic methodology for qualitative analysis.



The first step, guided by Cochrane, accomplished a systematic search of the design and application of qualitative methodologies in nursing practice between 2008 and 2010 using four key databases (see Table 1). The second step organised data findings by means of synthesis tables to enable us to capture statements of objectives, materials and methods, and also examine content for consensus or anomaly regarding the meaning, nature or constitution of the known data. Given that a systematic search and not systematic review was undertaken, quality appraisal of the literature sample was not a component of this study and as such was not conducted. It was important to have a means of jointly summarizing and assessing different studies on a single yet prolific topic, for that reason content analysis using bibliometrics was utilised to configure data. Bibliometric analysis of literature allows the study of the foundations of a discipline and as a robust quantitative approach augments the findings of a more subjective data. Although three academics undertook the study, the problem from the outset was how to make such diffuse data 'systematic'. As Margarete Sandelowski outlines, the paradox of any systematic undertaking is that we distort data into clarity (Sandelowski, 2008). It was not our intention to shoe-horn evidence into a pre-conceived criterion but to organise a body of work that had systematic correlation on which to draw and extract evidence; this meant finding the most rigorous approach, hence our four-step analysis. The fourth step utilised critical interpretive synthesis (Dixon-Woods et al., 2006). In summary, this unique four-

**Table 1**

Results by databases			
Search for "Year" = (2008–2010) and in title = ("qualitative method") and any word = (nursing) and in title = ("qualitative analysis") NOT any word = ("mixed methods"; quantitative; action research;); OR any word = ("design and application of qualitative")			
Database name	Status	Hits	
Applied Social Sciences Index and Abstracts (CSA)	DONE	47	View
CINAHL (EBSCO)	DONE	264	View
MEDLINE (Ovid)	DONE	1	View
PsycINFO (Ovid)	DONE	29	View
Sociological Abstracts (CSA)	DONE	23	View
Combined results	First 81 records	364	View

step approach provided a way of 1. searching and setting exclusion criteria; 2. synthesising data into meaningful combinations; 3. aggregating those combinations enabling a significant summary; 4. critically interpreting the extracted findings.

### Search approach

A search strategy must be conducted to investigate the research question. This study used a Cochrane approach to search for relevant qualitative literature published up to and including June 2010. We searched for literature either specifically examining the application and design of qualitative methods or analysis, including nursing and qualitative. We limited the search to include “qualitative” in the title, “nursing” any words, excluding from any of the field “mixed methods”, “quantitative”, and “action research” (outlined in Table 1). This was refined by further exclusion criteria as the study developed.

The methodological steps taken to reduce the evidence to a manageable inventory while making sure we catalogued the evidence accurately was both time consuming and valuable as it enabled us to immerse ourselves in the data and find our bearings (Greenhalgh, 2006). Using subject heading searches to analyse “qualitative” created the linear approach as outlined in Cochrane and optimised verifiable findings. A sample of qualitative papers were read to inform correct search terms ( $n = 100$ ) and it was found that qualitative had far more extenuous meaning than what the study required in terms of design and application of methods or analysis. Therefore, it was with some justification to search for papers that had qualitative in the title as qualitative papers that identified the application of theory in the title suggested that the theory framed the study question. Theory (in this case qualitative) would be a firm justification within the cited papers' methodology. The search approach was agreed upon as: “qualitative” and or “methods” “research” in the title; nursing with boolean operators anywhere; without any word “mixed methods”, “quantitative”. The search approach was given lengthy consideration and tested to ensure a high quality research development and well-designed and differentiated meaning by the research team.

### Search results extracted in step one

Extracted methodological characteristics relevant to the critical appraisal of the design and application of qualitative research, in published international nursing literature from 2008 to 2010, produced the search results below:

Full papers were obtained for those that appeared to be relevant ( $n = 364$ ). This number was supplemented by a hand search of two journals and other sources ( $n = 18$ ) and were checked against the exclusion criteria. To increase transparency and rigour of the process a number of distinct phases were completed (illustrated in Fig. 1). Duplicate citations were removed and studies that employed “qualitative” incidentally or by way of getting to a more theoretical undertaking of “patchwork”; “hermeneutics”; “constructivism”; “symbolic interactionism” and “feminism” were excluded. All of the studies were critically appraised by the main reviewer (the first author). For quality assurance, a 20% sample ( $n = 48$ ) was appraised by two reviewers (the second and third authors) and any discrepancies resolved by discussion.

### Findings from the synthesis tables (step two)

All data findings were organised by synthesis tables; a sample of which is outlined below to show findings (Table 2):

The study produced a lengthy synthesis table encompassing thirty pages a section of which is shown here. 43% ( $n = 103$ ) of papers employed a descriptive enquiry, but there was little consensus of what descriptive meant across the papers and references were not homogenous. 14% ( $n = 33$ ) of papers used qualitative methods supported by grounded theory and there was a high degree of

consensus and parity of references. This was not mirrored however in the application of theory—thematic analysis was used broadly. However we would stress that the credibility of qualitative cannot be defined by precision or accuracy, simply because it is not a conventional measuring device and a specific set of criteria can be illusive. What we would say is that consistency and a general transparency of process should be evident in qualitative research papers and this was not the case. Constant comparative method was used interchangeably with thematic analysis. 75% ( $n = 180$ ) of papers specified the method they used when citing a particular analytic approach to support their work (such as grounded theory, phenomenology, and ethnography), and to construct or underpin data collection, data findings or interpretive analysis. Of the studies, 240 used the overarching term “qualitative”. 180 papers used qualitative methods or analysis as interchangeable nouns; followed by study, design, approach or model. 180 papers stated they were qualitative studies followed by a qualitative relationship such as qualitative using a grounded theory approach. Finally, 27% ( $n = 63$ ) of papers used *ad hoc* referencing—papers referenced theorists/theories that were not employed or operational in the text and offered no substantive evidence other than to reference “qualitative”.

### Bibliometric findings (step three)

The bibliometric analysis provided the study with aggregate figures for how many times qualitative was referenced from the sample score of 240 papers and demonstrated numerical heterogeneity across the 240 papers. See below:

Bibliometric scale		
1) Articles indexed by referencing “qualitative”	As a <i>stand-alone</i> term 1 (2008) 2 (2009) 0 (2010)	No reference to any qualitative method, concept. 17 (2008) 12 (2009) 4 (2010) Total 33
2) Articles indexed by a definition of “qualitative”. Or definition of the design or application	6 (2008) 7 (2009) 2 (2010) Total 15	
3) Articles indexed by “qualitative” as a minor descriptor for the study (qualitative research data analysis)	In relation to other methods 80 (2008) 68 (2009) 32 (2010) Total 180	
4) 3) Articles indexed by “qualitative” as a major descriptor for the study	As a <i>stand-alone</i> qualitative study 20 (2008) 15 (2009) 6 (2010) Total 41	
5) Theory generating papers	211 (2008) 197 (2009) 230 (2010) Total 163	
6) Theory testing papers	29 (2008) 43 (2009) 15 (2010) Total 77	
7) Country of origin for theory testing papers	Developing countries UK; USA Spain; Portugal Icelandic countries France Australia	0 45 4 8 2 18

### Critical interpretive synthesis findings (step four)

The bibliometric analysis provided an excellent visual field of the data that led appropriately to step four to dig further into the analysis

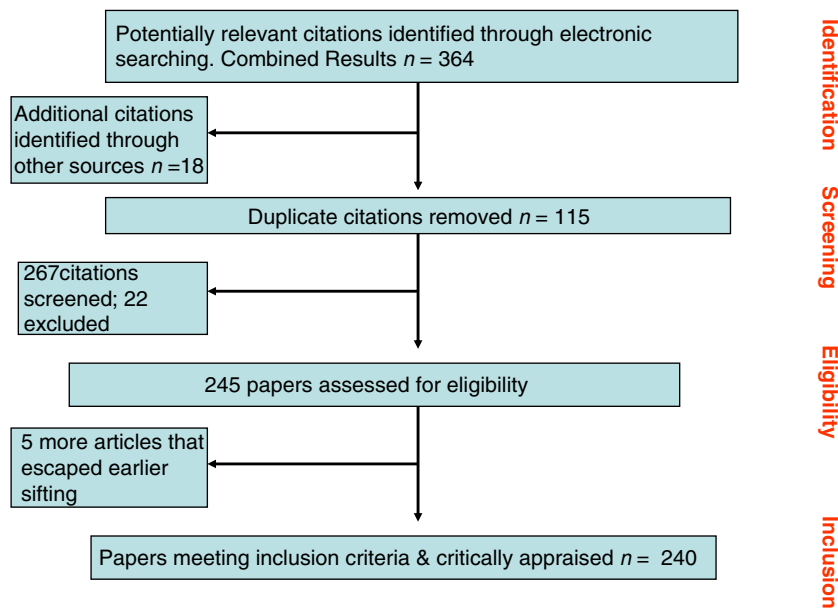


Fig. 1. Inclusion and extraction process.

—explaining the aggregate numbers above is an interpretive exercise and for this we employed the excellent work of Dixon-Woods et al.

1. Referencing qualitative as a stand-alone theoretical term was negligible. Because qualitative was mainly conceived as situation-specific, qualitative as a theory was not defined. Over 14% of the papers analysed were unreferenced. Referencing was the biggest anomaly in the study. Rigour was not seen as a priority in terms of citing methods or analysis. This evidence is born out largely in the papers that used qualitative as a catch-all phrase (termed

*stand-alone* above) without drawing on other quality appraisal methods.

2. Defining “qualitative” was rare; there was a presumption on the part of the researcher that qualitative was a shared and understood term. This is an issue as qualitative was also used as a ubiquitous term and a panacea for everything qualitative. Thus qualitative was defined in both broad and narrow terms.
3. Conclusions that might be drawn that qualitative research is still viewed as less reliable to quantitative analysis because of the perceived subjective nature of data analysis and interpretation is

**Table 2**  
Synthesis table.

Author and date	Country	Subject	Methods used	Data collection	Data analysis	Comments
Hossein et al., 2010	Iran and Finland	Teaching style in clinical nursing education	Qualitative approach known as Grounded theory	Interviews	Strauss and Corbin method	Themes but no theory
Hall et al., 2009	UK	Older people in nursing homes	References Glaser and Strauss Qualitative descriptive approach	Interviews	Qualitative content analysis	No reference to original source of method—Sandelowski only
Mahadeen 2008	Jordan and USA	Women's perceptions of the menopause	Descriptive qualitative study and inquiry	Interviews	Categories and themes as appropriate for qualitative inquiry	No reference to original source of method—Sandelowski only
Hughes and Goldie 2009	Northern Ireland	Medicines and resident involvement in older people	Qualitative survey in title Qualitative study in abstract	Interviews and focus group	Constant comparison Glaser and Strauss	Reference to original source in data analysis group
Anthony and Jack 2009	Canada	An integrative review of case study methodology so method paper	Whittemore and Knafks integrative review method			Uses referenced method for review
Finfgeld-Connett 2008	USA	Qualitative concept comparison and synthesis nursing presence and dignity	Qualitative concept analysis methods			Morse quoted and referenced
Rejeh, N, Ahmadi, F Mohammadi, E Anooosheh, M Kazemnejad, A (2008)	Tehran, Iran	Barriers to, and facilitators of post-operative pain management in Iranian nursing: a qualitative	This study was qualitative with 26 participant nurses Serial interviews and analysed using the content analysis method.	Data were semi-structured Individual	Data were content analysis Streubert, H.J. Morse and Field 1995; Sandelowski 2000	

more than a perception but evidence-based, drawn from these study findings.

4. When references were provided it was a reference to the source for the data analysis component; for example grounded theory methods of analysis or constant comparative analysis were referenced, but as a term in itself, qualitative always went unreferenced. The qualitative codicils (such as grounded theory) gave precision to the studies. Those papers that did not have methodological codicils went largely unreferenced.
5. This is where the greatest lack of transparency lay – examples of papers applying descriptive or qualitative techniques (without a qualitative analytical component) had either few or no references and used qualitative as a catch-all for their research position (which was often described only as “qualitative”) – placing significant burden on the term.
6. Most papers were theory generating; that is research that made a critical application of theory to practice and sought to demonstrate a deeper analysis of the topic, applying findings to the practice domain to incorporate theory and theoretical perspectives
7. For the researchers, the last finding in the bibliometric analysis was the most interesting of the study. Of those theory testing papers, not one was from a developing country. Theory testing papers were those that tested the relationship between theory and method. Theory testing papers typically examined the lack of objectivity and methodological rigor that qualitative analysis has levelled at it. By addressing the protracted criticisms of qualitative methodology an argument can be developed that is useful for testing theory. The findings illustrated the marked differences between countries and the resources and critical objectives between developed and developing nations. In terms of research output, developing countries used their time and resources to examine issues such as the impact of the Human immunodeficiency virus on their Continent. We found no published data (within our search terms) that were entangled in the defence of qualitative.

## Discussion

The epistemological challenge is to question whether qualitative contains a systematic set of propositions as a thing *in itself* so that it can be defined as a stand-alone term with no dependencies (such as grounded theory, phenomenology, and ethnography). In other words what is qualitative and, as Chinn and Jacobs succinctly ask what is “the specific inter-relationship among concepts for purposes of describing, explaining and predicting phenomena?” (Chinn and Jacobs 1987). The findings show that many of the papers simply named the properties and dimensions of a single concept as though the term “qualitative” defined some *thing* we all knew; when in fact it meant so many different things. Qualitative is used as a term to signify a logical grouping of related concepts used to draw several different aspects together that are relatively and complexly intertwined. Yet this could never be a true proposition to make for qualitative research as the variation, structure, sophistication to lend itself to many environments and ability to adapt and stretch is what makes it suppositional and not propositional.

## Conclusion

Is it possible that to stand up to scrutiny, qualitative as a method/analysis can speak for itself as a theoretical proposition? Given the findings, it is a valid question that might indeed find an answer through the fibrous phenomenological account of the “thingness of

the thing” (Heidegger, 1978), but Heidegger and qualitative methods are not the easiest bed-fellows as he must be the most misquoted founding father of phenomenology—so precipitately used in qualitative methods and analysis. Quite simply, to answer that question I would say no for a number of reasons. Methods evolve over time and change with the evolutionary pace and demands of environment they lend themselves to. Even more importantly, as our findings show, qualitative is a method, analysis, conceptual framework and model. It is also abstract, general and specific.

However, if we ask does the research need to speak for itself? Then the answer has to be unequivocally yes. Qualitative research must be robust enough to withstand the scrutiny of its readers and its quantitative counterpart. After all, research is the method of enquiry that characterises science and that includes qualitative. Therefore, to meet the above original aims of this paper, to support the development of evidence-based guidelines for practitioners quality control measures that are contextually relevant, comprehensive and flexible, are offered:

- Rigour should be seen as a priority in terms of citing methods or analysis. Qualitative analysis/methods should be supported by references.
- Qualitative research should reflect the qualitative rigour of the intended methodological theory so that theoretical terms are consistently used.
- Qualitative is not a catch-all panacea. Researchers should ensure that methodological, contextual and well-argued terms frame the qualitative definition to stabilise meaning for that intended research.

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