Review

A guide to critiquing a research paper. Methodological appraisal of a paper on nurses in abortion care

Allyson Lipp a,⁎, Anne Fothergill b

a Principal lecturer, Adult, Room GTAB122, Faculty of Life Sciences and Education, University of South Wales, Glyntaff, Pontypridd CF37 4BD, United Kingdom
b Principal Lecturer, Mental Health, Faculty of Life Sciences and Education, University of South Wales, Glyntaff, Pontypridd CF37 4BD, United Kingdom

SUMMARY

In this paper, we have taken a previously published article on nurses' judgements in abortion care performing a systematic critique of the merits of this research using a recognised critiquing framework.

Objectives:
1. Explain the various stages of critiquing using a published guide.
2. To critique a published qualitative research paper which uses grounded theory.
3. Provide a template for critiquing.

Design: The qualitative paper chosen for the critique is a grounded theory design and the research terms and terminology associated with this method such as symbolic interactionism are defined. The published paper reported on findings from a study exploring the characteristics of nurses in abortion care.

Review Methods: A published critiquing tool has been applied. It was chosen because it is pragmatic, clearly laid out and accessible as full text to the people likely to need it. It comprises two stages, the first of which centres on the believability of the research. The second stage is more detailed and examines the research process and establishes the credibility of the research in its application to practice.

Outcome: Develop critical and analytical skills through methodically appraising the merits of published research.

Conclusion: Nursing as an evidence-based profession requires nurses at both pre- and post-registration levels to be able to understand, synthesise and critique research, this being a fundamental part of many nursing curricula. These have become core skills to acquire since implementing up to date evidence is the cornerstone of contemporary nursing practice.

© 2015 Elsevier Ltd. All rights reserved.

Introduction

Developing and maintaining proficiency in critiquing research have become a core skill in today’s evidence-based nursing. In addition, understanding, synthesising and critiquing research are fundamental parts of all nursing curricula at both pre- and post-registration levels (NMC, 2011). This paper presents a guide, which has potential utility in both practice and when undertaking academic studies.

The purpose of this paper is to show how published research can be systematically appraised using the critiquing framework by Coughlan et al. (2007a,b). This paper, is the second critique undertaken by the authors (Fothergill and Lipp, 2014), the first of which applied Coughlan’s critiquing tool for quantitative studies (Coughlan et al., 2007a,b).

Our rationale for choosing this paper is that according to Bailey et al. (2002), qualitative research forms an important evidence base for nursing. This anecdotal evidence is confirmed by Miller (2010) who claims that qualitative approaches are favoured by nurses over quantitative research. Moreover, qualitative research methods are commonly chosen by nurses to critique for their academic assignments.

The paper chosen to be critiqued was written by one of the authors (AL), the use of critic refers to the reader, whereas AF and AL will be referred to as the authors.

⁎ Corresponding author. Tel.: +44 1 443 483157.
E-mail addresses: allyson.lipp@southwales.ac.uk (A. Lipp), anne.fothergill@southwales.ac.uk (A. Fothergill).

http://dx.doi.org/10.1016/j.nedt.2014.12.010
0260-6917/© 2015 Elsevier Ltd. All rights reserved.
Developing and Maintaining the Skill

Commonly, academic research method modules will include some sort of critiquing process. The complexity of the task will vary depending on academic level and course focus; nevertheless the principles remain the same. This article will demonstrate how a recognised framework can be used to undertake a critique on a specific research article, in addition to providing a step by step guide to critiquing a qualitative research study, namely grounded theory.

Using a Framework

This critique will primarily employ a critiquing tool developed by Coughlan et al. (2007a,b) as it is pragmatic, clearly laid out and accessible as full text to the people likely to need it. The authors recognise that there are many other critiquing tools available, which critics may prefer to use. Whichever tool is used, the underlying principles of critiquing remain the same.

Coughlan et al.’s (2007a,b) tool divides the critique into two sections.

Section One — Elements Influencing the Believability of the Research

The believability of the research is important, but inevitably this section will be brief as the main critique will focus on the robustness of the research.

Writing Style

Is the report well written — concise, grammatically correct, avoid the use of jargon? Is it well laid out and organised?

The paper is written for a very specialist audience who would likely be interested in abortion care. Even so, jargon is kept to a minimum, and the style is concise and uses correct grammatical phrasing. The paper is clearly written and follows the conventional style for reporting research (Sollaci and Pereira, 2004).

Author

Do the researcher’s qualifications/position indicate a degree of knowledge in this particular field?

A brief Google search on the researcher showed that she has varied research and academic expertise, which bodes well for a credible research study. It retrieved some publications relating to this topic by the researcher, which indicates standing in the field. However, no other papers on nurses in abortion care were retrieved before 2009, which indicates that the researcher was new to the field at that time and this reduces the potential credibility of this study.

A more in depth search revealed her different theoretical perspectives and underpinning philosophies ranging from positivist to constructivist/interpretive standpoints (Jolley, 2013). This informs the reader of potential biases of the research from inception to dissemination. The article will be critiqued on its own merit keeping in mind how the perspectives can influence the critic’s interpretation of the research (Moule and Goodman, 2009). The article provides a brief summary of the researcher’s career and her qualifications. This allows the critic to determine her knowledge of the field (Lipp, 2010).

Report Title

Is the title clear, accurate and unambiguous?

The title is clear, but could be misleading, as it does not mention the term ‘nurse’. In addition, this term does not feature in the key words. Retrieval of the article may also have been enhanced by including the terms ‘judgement’ and ‘attributes’ in the key words.

Abstract

Does the abstract offer a clear overview of the study, including the research problem, sample, methodology, findings and recommendations?

The structure and length of this section are normally stipulated by the journal. Notwithstanding this, as suggested by Parahoo (2006) the abstract has successfully provided a short summary of what the research was about, how it was carried out and what was found.

Section Two — Elements Influencing the Robustness of the Research

Statement of the Phenomenon of Interest

Is the phenomenon to be studied clearly identified? Are the phenomena of interest and the research question consistent?

A phenomenon is defined by Polit and Beck (2006) as an abstract concept. In this case, the phenomenon studied was identified as being the affective attributes of nurses/midwives articulated in abortion care. Commonly qualitative research explores ideas and does not necessarily have a predetermined question at the outset. In keeping with this idea, no research question was stated in the article and so consistency between the two was not possible to judge. Instead, there was a secondary aim of exploring how the attributes affect care given by nurses/midwives involved. Limiting the research to aims is in keeping with the qualitative paradigm. This defines research as a process of discovery where the researcher should not be constrained by narrow questions, but instead should be sufficiently flexible to absorb and interpret multiple realities in a natural setting (Streubert and Carpenter, 2011).

Purpose/Significance of the Study

Is the purpose of the study/research question clearly identified?

The section ‘aims of the study’ is clear and states the two aims discussed above.

Literature Review

Has a literature review been undertaken? Does it meet the philosophical underpinnings of the study?

A literature review was undertaken and due to the nature of the research approach it was preliminary. However, it was not based on a clear literature search strategy. For example, a structured approach to searching the literature is more commonly found in quantitative research using guides for example PICO (population, intervention, comparison and outcome) (Sackett et al., 2000).

In grounded theory, there is a debate as to how extensive any literature review should be at the outset of the research as the aim of grounded theory research is to avoid being unduly influenced by previous work in a particular field (Charmaz, 2006). In keeping with the exploratory nature of grounded theory, researchers tend to take a more pragmatic approach to the literature review, which was the case in this paper (Lipp, 2010).

STARLITE is an acronym devised by Booth (2006) that advocates the use of headings including limiters, exclusion, inclusion criteria etc. in a literature search section. This would have made the literature search more explicit in articulating each element of the search process.

The critic is left to judge its comprehensiveness and decide whether the literature review is complete.

It is interesting to note that in this section the qualitative critique (Coughlan et al., 2007a,b), unlike the critique of quantitative research (Coughlan et al., 2007a,b), does not require the critic to comment on the age of research included in the literature review. This is in keeping with the premise that some qualitative research would be discovering new areas of knowledge that had not previously been explored or could draw on seminal texts, which may be considered dated. For example, the grounded theory in this research was shaped by Goffman’s (1963) influential work on stigma.

It appears that the literature review fulfilled the objectives required and seemingly meets the philosophical underpinnings of the study. The critic is referred to Coughlan et al. (2007a,b) for further guidance on the appropriate approach to the literature in qualitative research.
Theoretical Framework

Has a conceptual or theoretical framework been identified? Is the framework adequately described? Is the framework appropriate?

The conceptual/theoretical framework used was grounded theory. Grounded theory is defined for the purposes of this critique as ‘an approach to collecting and analysing qualitative data that aims to develop theories and theoretical propositions grounded in real world observations’ (Polit and Beck, 2006: 501).

Terms such as concept, theory and framework are commonly used in qualitative nursing research, sometimes without adequate explanation which can be confusing for the novice critic. Suffice to state that when any of these terms are used in qualitative studies, it is with the purpose of providing a scaffold for the researcher on which to build their research.

The framework of grounded theory has been adequately described in that the researcher guides the reader throughout of the approach used, explaining the use of grounded theory as a method. Grounded theory seems to be the appropriate scaffold for this type of data.

Has the philosophical approach been identified? Why was this approach chosen? Has the philosophical underpinnings of the research been explained?

Yes, symbolic interactionism is the underpinning philosophical approach, or methodology, which is defined as a framework for how people make sense of and interpret social interactions (Lipp, 2010). Symbolic interactionism was probably chosen as this approach is historically linked to grounded theory (Charmaz, 2006) although the researcher does not specify this.

Sample

Is the sampling method and sampling size identified? Is the sampling method appropriate? Were the participants suitable for informing research?

The sample was identified as the total population and the final sample size was 12. The sample was purposively selected from the estimated population of nurses/midwives working in abortion care across all the NHS Trusts in Wales to obtain ‘a reasonable geographic and trust spread’ (Lipp, 2010). Purposive sampling techniques are a form of non-probability sampling commonly used in qualitative research where selection is based on the researcher’s judgement (Polit and Beck, 2006).

The researcher’s sample was selected based on a small, specialist group of nurses/midwives in the niche area of caring for women undergoing surgical and medical abortion when working in gynaecology or specialist departments in the National Health Service.

A deficiency in sampling was that the researcher did not explain the requirement for geographic spread of 9–13 of the Trusts given that generalising findings from qualitative research is not the purpose.

In grounded theory the researcher is encouraged to continue increasing the number of participants in the research until no new data emerges known as data saturation (Morse, 1995). In theory, this is plausible, but in practice, Research Governance dictates that an approximate sample size must be stated before the study can commence.

Ethical Considerations

Were the participants fully informed about the nature of the research? Was the autonomy/confidentiality of the participants guaranteed? Were the participants protected from harm? Was ethical permission granted for the study?

The researcher has adhered to UK NHS ethics procedures by gaining MREC (formerly known as Multiple-Site Research Ethics Committee) approval and National Health Service Research and Development (NHS R&D) approval for this multi-site study (Lipp, 2010). Regarding permission to undertake the research, all UK NHS research requires ethical approval from a Research Ethics Committee (NRES, 2013) and a brief statement in the text confirms this. However, the researcher has assumed that the reader would know that having been through these processes that all key ethical principles including autonomy and confidentiality had been adhered to, but this was not made explicit in the article (Lipp, 2010).

Instructions for authors on the publisher’s website of the article reassure the critic that articles would only be accepted if an appropriate NHS ethics review had been undertaken.

Avoiding harm, or non-maleficence, is highlighted as particularly relevant by Coughlan et al. (2007a,b) when researching sensitive subjects. In this case, the participants were given the phone number of a colleague with abortion expertise who was not connected to the research study for the purpose of debriefing if they had been adversely affected by the interview.

Data Collection/Data Analysis

Are the data collection strategies described? Are the strategies used to analyse the data described? Did the researcher follow the steps of data analysis method identified? Was data saturation achieved?

Yes, data collection strategies were described. As per grounded theory data was collected by a variety of means described as individual interviews, supported by supplementary field notes and reflexive journal entries. The researcher stated that she used the process of constant comparative analysis until data saturation was reached, again in keeping with a grounded theoretical approach (Strauss and Corbin, 1998). This process was used to enable data analysis to run alongside data collection, thus facilitating simultaneous data categorisation and interpretation. Several tables in the text highlight the process of inter- and intra-axial coding. This is a way of cross checking the data to ensure that collapsing categories is done explicitly and rigorously (Polit and Beck, 2006). This led to the researcher identifying one core category, which was termed ‘conceding and concealing judgements’ (Lipp, 2010).

Does the research discuss how rigour was assured? Were credibility, dependability, transferability and goodness discussed?

The researcher has used Chiovitti and Piran’s (2003) standards of rigour during the research in which the terms credibility, auditability and fittingness are used. The ways in which this framework has been applied are listed in the paper (Lipp, 2010) in Table 1 (right hand column). This brief approach may be adequate for experienced critics, but it may be inadequate for novices.

In addition to the table, the latter part of the data collection and analysis section is devoted to rigour as the researcher explains in detail how the data categories were coded and collapsed in Tables 2, 3, 4, 5 and 6. However, this was not linked to Chiovitti and Piran’s (2003) standards. In a previous section, the researcher stated that she validated the accuracy of the data by returning a transcript of the interview to each participant but this was not included as a mechanism for aiding rigour.

Findings/Discussion

Are the findings presented appropriately? Has the report been placed in the context of what was already known of the phenomenon? Has the original purpose for the study been adequately addressed?

The findings were presented in a logical and consistent way. Tables were presented in the findings section to visually show how coding had been undertaken, thus offering a clear explanation of how the categories were derived from the data. Fig. 1 shows the paradigm model, but there is no reference to this model in the text. Instead, the reader is left to connect the tables to the figure, both of which are complex and have multiple elements. For ease of reading the researcher should have linked the two more explicitly. The selective use of categories for this article was explained but the critic is left to judge whether the researcher has made the right decisions.

The discussion places the report into the context of what is already known about the phenomenon of affective attributes. This was achieved by reviewing the relevant literature focusing specifically on the one core category of conceding and concealing judgements. From this perspective, the first aim of the study seems to have been met. However, the second aim of how care given in these circumstances is affected by...
Conclusion/Implications and Recommendations

Are the importance and implications of the findings identified? Are recommendations made to suggest how the research findings can be developed?

The conclusion takes a pragmatic approach to being non-judgemental. This has important implications for practice as being non-judgemental is highlighted as a given in many nursing discussions. However, the research claims that it is not possible to be non-judgemental in this context therefore several strategies are suggested to overcome this in practice.

References

Were all the books, journals and other media alluded to in the study accurately referenced?

Yes.

Conclusion

The purpose of the critique has been to guide nurses in the process. This should indirectly improve practice by enabling nurses to become more evidence-based. It is all too common for readers of research to accept the findings without issue. This critique has been a worthwhile exercise in that it has encouraged the critic to delve systematically into the mechanisms of the research. This was particularly challenging for one of the authors who was part of the original research team. However, this in turn led to added insights, which enabled a more thorough critique and indeed more insight into readiness for future research projects. A major message from this critique is that critics need to look beyond the study in question to reveal factors that aid the critique. Although this took added time and effort, it resulted in a more comprehensive critique.

References


