

A nurses' guide to Qualitative Research

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KEY WORDS

Research methodology, Qualitative research, evidence based practice (EBP).

ABSTRACT

Objective

This article provides a breakdown of the components of qualitative research methodology. Its intention is to simplify the terminology and process of qualitative research to enable novice readers of research to better understand the concepts involved (Benner 1984).

Primary Argument

Current Competency Standards for Australian Registered Nurses and Midwives include a requirement to evaluate and implement research as part of their care (Borbasi and Jackson 2012, p.22; Nursing and Midwifery Board of Australia 2012). They are also expected to be actively involved in research studies (Borbasi and Jackson 2012, p.22). Evidence, when available, can enhance clinical judgement (Hamer and Collinson 2014, p.9). As evidence and research are threaded through professional work and study in the health sciences (Wright-St Clair et al 2014, p.5) nurses, particularly novice nurses, may benefit from a discussion that helps them understand the sequence of a research paper (Moxham 2012) using qualitative methodology.

Conclusion

A systematic and logical approach will be used to discuss the content of a typical qualitative research paper. A comparative grid at the end of this paper (appendix 1) comparing the qualitative research designs, may lead the nurse to better understand the differing components of several qualitative research methods (Ingham-Broomfield 2014).

INTRODUCTION

An expectation of nurses graduating is that they will become critical consumers of research (Wright-St Clair et al 2014). Liamputtong (2013, p. 5) and Wright-St Clair et al (2014, pp.4-5) agree Evidence Based Practice (EBP) can be defined as the conscientious integration of best research evidence with clinical expertise, patient values and needs in the delivery of high-quality, cost effective health care. Assessment tools are used on a regular basis by clinicians in clinical practice, and during research (Imms and Greaves 2013) to ultimately improve patient care. In this paper main components of qualitative research will be discussed as one paradigm for researching health related problems and issues.

THE QUALITATIVE RESEARCH PAPER

Definition and meaning of Qualitative research:

Qualitative research is used to examine subjective human experience by using non-statistical methods of analysis (Borbasi and Jackson 2012). It is associated with naturalistic inquiry which explores the complex experience of human beings (Moxham 2012, p.32). Qualitative research is underpinned by several theoretical perspectives namely Constructivist-Interpretive, Critical, Post-positivist, Post-structural/Postmodern and Feminism or by its research design, Phenomenology, Ethnography, Grounded Theory (Glaser and Strauss 1967) Historical method and Case study (Borbasi and Jackson 2012, p.127). The definitions will be explored in more depth as this paper unfolds. The paper also acknowledges that not all forms of qualitative research can be discussed due to the word limitation.

Qualitative research explores a subjective, holistic pathway which helps to develop theory (Burns and Grove 2009). Whereas quantitative research is based on scientific method, qualitative research suits behavioural and social sciences as it aids in understanding the unique nature of human beings (Burns and Grove 2009). Qualitative research can generate information that can help nurses by informing clinical decisions. Qualitative nursing research focuses on patients and/or health professionals' experiences. Through this approach the reality of people's experiences and lives are not over simplified and subsumed into a number or a statistic (Hoffmann et al 2013, p.223).

Abstract/Summary

An abstract or summary of a qualitative paper is a brief objective summary of the research report, in fact, the language and material is often pared back to the bare minimum (Polit and Hungler 2013, p.253; Borbasi and Jackson 2012, p.178; Nieswiadomy 2012). It must contain information on the rationale and background of the study as well as the theoretical and methodological processes for gathering the information (Borbasi and Jackson 2012). This will include the method to collect data, the results, conclusion and recommendations. The qualitative abstract is more narrative in form and less likely to use the obscure research and specialty clinical language of quantitative research (Borbasi and Jackson 2012, p.178).

Identifying the problem

Qualitative designs do not use hypotheses. They may state an observational question to be explored. Ideally the topic is narrowed down to a specific one sentence statement of the problem (Nieswiadomy 2012). Qualitative research views reality as a subjective and multi-faceted experience using questions more closely tied to the human experience such as "What is it like to be lonely?" (Borbasi and Jackson 2012, p.125) or, even more generally, "How do you feel?" (Hoffmann et al 2013, p.23)

Literature Search

The literature review is generally in the introductory section (Polit and Hungler 2013). The function of a literature search in qualitative research varies depending on the classification of the study. A Phenomenological

investigator may conduct a search to ascertain whether a subject area, such as lived experience, has been researched, as well as identify other ideas in design and conduct (Borbasi and Jackson 2012, p.133). In Historical research the literature search is an essential and integral component which may be an extensive undertaking to narrow the event from overwhelming proportions to a more manageable time frame (Borbasi and Jackson 2012, p.133). Alternately, a Grounded Theory investigator may make a point of avoiding the literature before beginning the study to avoid 'contamination' of the data with preconceived concepts and notions about what might be relevant (Borbasi and Jackson 2012, p.133). The Critical Theorist, who attempts to confront social injustices, will, by the nature of their research, need to conduct a literature review as previous events such as socio-political ideologies, shape their research.

METHODOLOGY

Deductive and Inductive Reasoning

Deductive reasoning is also known as 'top down' approach where the investigator works from more general information to something more specific. The investigator uses a logical statement, a hypothesis, to test a theory (Jirojwong et al 2011; Burns and Grove 2009). This is used in quantitative methodology. Inductive reasoning, also known as 'bottom up', works the opposite way, moving from the specific to the general, ending up with general conclusions or theories (Jirojwong et al 2011; Burns and Grove 2009). This is the basis of qualitative methodology.

Theoretical Perspectives

A theoretical perspective is based on the underlying beliefs that helped inform the research. Put simply, a theory is a perspective, or point of view, also known as a paradigm. Qualitative research is underpinned by several theoretical perspectives, or paradigms, namely, Constructivist-Interpretive, Critical, Post-positivist, Post-structural/Postmodern and Feminist (Liamputtong 2013; Borbasi and Jackson 2012; Jirojwong et al 2011). Constructivist-Interpretive approaches have the intention of understanding the human world of experience relying on the participants view of the situation being studied using an interpretive understanding called hermeneutics (Liamputtong 2013, p.118). It helps explore practical concerns of everyday living, examining the way people develop interpretations of their life, in relation to their experiences (Liamputtong 2013, p.118). Critical theorists are agents of change who are interested in the social construction of experience, particularly inequality and social injustice, who develop knowledge to help create positive and empowering change (Borbasi and Jackson 2012, p.124; Jirojwong et al 2011). The Post-positivist perspective grew out of disenchantment with the radical objectivity of the quantitative research style. The Post-positivist style, which is interpretive, seeks to understand people through lived experiences (Borbasi and Jackson 2012). Post structural, or postmodern studies, are concerned with the everyday life with concepts such as culture, gender, power and oppression (Borbasi and Jackson 2012). Feminism is concerned with women's issues recognising women's experiences, beliefs, views, ways of being and ways of knowing as legitimate and authoritative sources of knowledge as well as raising awareness of gender inequality and oppression (Jirojwong et al 2011, p.125).

Designs

Qualitative research falls in to five main designs, namely, Phenomenology, Ethnography, Grounded Theory (Glaser and Strauss 1967), Historical method and Case study (Borbasi and Jackson 2012; Burns and Grove 2009). Phenomenology searches for multiple meanings attributed to a phenomenon and tries to provide a comprehensive description rather than an explanation (Liamputtong 2013, p.117). It is used to describe the everyday world of human experience (Jirojwong et al 2011, p.113). Ethnography has its origins in anthropology with its focus on the study of humans from the evolutionary and social perspectives (Jirojwong et al 2011, p.121) and focuses on the scientific study of the lived culture of a group of people (Liamputtong 2013,

p.86). Grounded theory is a systematic form of enquiry which generates social theory through the study of social systems present in human interaction (Jirojwong et al 2011, p.118). Historical method is the process of establishing facts and principles through chronology and to the evolution or historical course of what is being studied. A significant part of historical research is to analyse a defined event and then understand the impact of that event on the present (Borbasi and Jackson 2012, p.131). The Case Study method occurs in both qualitative and quantitative research. The focus of a case study is on a particular phenomenon or issue of concern in a particular person, group or institution and is recorded over time (Jirojwong et al 2011, p.224).

Instruments

Qualitative instruments may include self-reporting tools and observation (Polit and Hungler 2013). Commonly used methods in nursing research also include focus groups and interviews (Moxham 2012). There are many different instruments available for the qualitative investigator, more of which are identified in the grid below. Using interviews as an example there are many differing styles for example, a one to one interview, a group interview, a focus group interview, a brainstorming interview and telephone interviews (Jirojwong et al 2011). The interview itself may be structured, semi-structured or unstructured (Jirojwong et al 2011).

With observation techniques the method may be overt or covert. Overt observation requires full disclosure to the participants that they are being observed for the purpose of the research (Jirojwong et al 2011). One drawback of this method is that the participant may change or modify their behaviour due to being observed. This is known as the 'Hawthorne effect' (also referred to as the Observer effect) whereby the participants in the research respond to the attention given to them by the investigators (Babbie 2013, p. 232). Covert observation captures the natural everyday behaviour of the participants but can be viewed as unethical as the participant is being monitored without knowing what is being recorded (Jirojwong et al 2011).

In quantitative research the reliability and validity of the instruments is essential (Borbasi and Jackson 2012; Burns and Grove, 2009) however qualitative investigators are concerned with the accuracy and comprehensiveness of the data. They favour terms such as 'confirmability'. "Confirmability comprises three attributes : credibility, auditability and transferability" (Borbasi and Jackson 2012, p. 138).

Sample

The sample population is very variable in qualitative research. It can vary from one individual to small groups to institutions to historical data. It does not have to involve a living person specifically as qualitative methodology lends itself to using a number of different sources of data such as diaries, old newspapers and letters. Subjects of qualitative research are often called participants or informants rather than subjects as the word 'subject' is associated with experimentation or laboratory like conditions (Borbasi and Jackson 2012, p.140).

There are many differing forms of sampling such as convenience or purposive, snowballing, or intensity sampling to name a few (Polit and Hungler 2013; Borbasi and Jackson 2012; Jirojwong et al 2011). Samples tend to be small and often selected using convenience or purposive techniques means the sample was specifically chosen to ensure the data gathered is 'information-rich' (Borbasi and Jackson 2012, p.135). As an example of how different the samples may be is as follows. Grounded Theory uses a sampling technique called theoretical sampling whereby the researcher begins by collecting and analysing data on a single sample (Borbasi and Jackson 2012, p.135). As further data is collected and coded concepts begin to emerge. This is totally different to Historical research where the information required comes from data sources rather than from people (Borbasi and Jackson 2012, pp.135-136).

Ethics

The participating subjects, their families and society must be informed by the investigator regarding the implications of being involved in any research (Burns and Grove 2009). An appropriate ethics committee is

required to grant permission before undertaking any study (Elliott et al 2012, p.93; Jirojwong et al 2011, pp.63-66). Ethical guidelines outline the standards required for conducting research. Nurses have a moral and legal obligation to protect any individual's privacy (Moxham 2012, p.32; Nursing and Midwifery Board of Australia 2012 Conduct Statement 5). Equally important is the need to protect individuals from significant harm (Nursing and Midwifery Board of Australia 2012 Conduct Statement 8). Consent can be obtained after full explanation of the study's intent (Borbasi and Jackson 2012) and that the participants know they can withdraw at any time (Jirojwong et al 2014 p.70).

Pilot Study

The purpose of a pilot study is conducted to refine the methodology (Burns and Grove, 2009). It is a smaller version of the main study and is used to assess the adequacy and feasibility of the main research (Moxham 2012, p.35). The pilot study can identify problems and strengthen the qualitative methodology by identifying practical and methodological issues as well as highlighting modifications that should be made for the main study (Kim 2011).

Main Study

Conducting research requires a lot of time and attention over many months and possibly years (Borbasi and Jackson 2012, p.139). Data analysis and collection may occur simultaneously. Due to the nature of some research, such as lived experiences, the focus is personal and may be emotional and even traumatic in nature (Borbasi and Jackson 2012). In qualitative studies most approaches recognise the role of the investigator in shaping data collection and in data analysis (Jirojwong et al 2011, p.274).

Results

Analysis of data in qualitative studies involves an inductive process so it involves examining words, descriptions and processes (Borbasi and Jackson 2012, p.140). The investigator uses inductive reasoning to sort and make sense of their data. Essentially the investigator immerses themselves in the data looking for relationships (Grounded Theory), importance (Historical research), patterns (Case studies) or theory in general (Borbasi and Jackson 2012). Jirojwong et al (2011, p.264) discuss the stages of qualitative analysis following the collection of data. Analysis may go through some or all of the stages of familiarisation with the data, transcription of recorded material, organisation of data, coding, de-identifying, re-coding, categorising, exploration of relationships between categories, refinement and development of theory and incorporation in to pre-existing knowledge.

DISCUSSION/RECOMMENDATIONS

The research may offer insight in to a specific experience, for example, of a particular group of women (Feminist) or a group of people in a small tribal village (Ethnography). The discussion may provide a picture of life in a specific environment. The investigators may claim certain findings. This section usually tries to unravel what the results mean. There should be an interpretation of the results, the study limitations and possible implications for further research to advance knowledge (Polit and Hungler 2013).

CONCLUSIONS of the Qualitative research paper

The conclusions may be very broad purely highlighting an issue by raising awareness or further understanding of a human experience. Consumers of the research, such a nurses, need to be able to satisfy themselves that the findings of the qualitative research are credible and trustworthy (Borbasi and Jackson 2012, p.143). Often, due to the nature of qualitative papers and the extensive information provided, they are difficult to summarise adequately for publication (Polit and Hungler 2013; Moglia et al 2011; Stenius et al 2008).

REFERENCE LIST

Research papers conclude with a list including books and other journal articles used to support the concepts outlined (Ingham-Broomfield 2014). The reference list provides an excellent starting place to further search a topic as it allows the reader to locate and retrieve sources cited in the paper (Polit and Hungler 2013).

ARTICLE CONCLUSION

The methodological approach used in this paper has discussed qualitative research which typically involves the collection and analysis of loosely structured information regarding people in naturalistic settings although approaches such as Historical research do not necessarily involve humans (Jirowong et al 2014, p.131). The content of this article is intended to support the novice investigator to move towards higher levels of clinical competence (Benner 1984) with regard to understanding and using research.

Appendix 1

The Grid: An overview of the Research Designs of Qualitative Research

Content	Phenomenology	Ethnography	Grounded Theory	Historical Method	Case Study
Sample	Individuals or groups	Groups or individuals in a culture although more likely to involve groups (Borbasi and Jackson 2012 p128)	Individuals or groups	Sources of historical significance	Single person or single problem, small group or institution
Example of types of instruments/tools used	Interviews and descriptions, observation (Borbasi and Jackson 2012 p129)	Observation and documentation of daily life – the investigator immerses themselves in the culture or group being studied (Borbasi and Jackson 2012 p128)	Observation, field notes, intensive interviews, review of documents, analysis of literature and research on the topic, memo-writing (Jirowong et al 2011 p118)	Historical material such as letters, memos, diaries, handwritten materials, old books, newspapers, books, audio or videotapes, government records, archives (Borbasi and Jackson 2012 p131)	Interviews, observation, records, historical documents and statements (Borbasi and Jackson 2012; Burns and Grove 2011)
Ethics permission	Essential	Essential	Essential	Essential	Essential

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