Abstract
Observation is a research data-collection method used generally to capture the activities of participants as well as when and where things are happening in a given setting. It checks description of the phenomena against what the researcher perceives to be fact in a rich experiential context. The method’s main strength is that it provides direct access to the social phenomena under consideration. It can be used quantitatively or qualitatively, depending on the research question. Challenges in using observation relate to adopting the role of participant or non-participant researcher as observer. This article discusses some of the complexities involved when nurse researchers seek to collect observational data on social processes in naturalistic settings using unstructured or structured observational methods in qualitative research methodology. A glossary of research terms is provided.

Author
Jenny Salmon Post-doctoral research fellow, University of Manitoba, Winnipeg, Manitoba, Canada.
Correspondence to: jv salmon@i hug.co.nz

Keywords
Insider/outsider perspective, observational methods, participant observation, non-participant observation, research, structured observation, unstructured observation

Participant observation and typology
Participant observation is one of the most important approaches to data collection in practice-based nursing (Parahoo 1997). There are generally three types of participant observation:
▷ The ‘observer as participant’ may undertake intermittent observation alongside interviewing and their role is known.
▷ The ‘participant as observer’ undertakes prolonged observation, is involved in all the organisation’s central activities and makes their role known.
▷ In the ‘complete participant’ role, researchers interact in the social situation but their role is concealed.

Others argue there is no single theoretical standard typology of participation (Hammersley and Atkinson 1995). They question the value of distinguishing between ‘participant as observer’ and ‘observer as participant’. In practice, the extent of participation is governed by the nature of the setting and the research question (Mays and Pope 1995).

In general, participant observers aim to understand people’s social worlds from an insider’s
perspective, which generally involves prolonged immersion in the daily life of the group under study. Participant observers declare they are researchers and assume that, by sharing as much of the daily life of their informants as possible, they will be entrusted with the data they seek (Moore and Savage 2002).

Conversely, in the ‘complete participant’ role, researchers may conceal their status because, it is argued, this is the only way to encourage people to reveal certain types of data (Johnson 1992). The limits to such ‘deception’ should be checked with ethical governing bodies when undertaking qualitative research.

In participant observation, data analysis is continuous. Observers oscillate between the field and data already collected. What they try to observe and ask about in the field depends on what they believe they have learned. They keep a running record of themes to explore and questions to ask. As observers acquire knowledge and understanding of a setting, questions become more focused and directed. Once themes and perspectives have emerged, researchers begin to make their knowledge of the setting and test data gathered previously more complete.

Complete observers usually have a structured inventory for observing specific events. They listen well and do not wish to become involved in activities that do not relate to the specific research topic. Complete observers maintain distance, do not interact and their role is concealed (Mulhall 2003).

Unstructured and structured observation

In addition to observing either participatively or non-participatively in naturalistic healthcare settings to explore human interaction, relationships and action, the nurse observer may consider whether the qualitative methodology should be structured or unstructured. Examples of these approaches include Allan (2006), who used unstructured participant observation to explore the role of emotions in nursing practice in a UK fertility unit. Non-participant structured observation was used to compare the interventions of qualified nurses with those of occupational therapists (Booth et al 2001). Zeitz (2003) in her doctoral thesis applied structured non-participant observation to ascertain what nurses did when undertaking post-operative observations in the initial 24 hours after patients returned to the wards in Australian hospitals.

The positivistic research paradigm involves structured, descriptive, inferential observation and ‘standing apart’ from that which is being observed. The purpose of positivistic activity is to record physical and verbal behaviour discretely without contaminating data with the researcher’s preconceptions (Mulhall 1998). Observation schedules are predetermined using classifications developed from known theory. In this respect, the prospective observational study performed by Westbrook et al (2011) describes how researchers applied a work observation methodology on two wards in an Australian teaching hospital. Entering the field with this type of protocol might involve a lengthy process of seeking and gaining approval from managers, gatekeepers and ethics committees.

Based in the interpretivist/constructivist paradigm, unstructured observation is used to understand and interpret cultural behaviour. It acknowledges the importance of context and the co-construction of knowledge between participant and researcher. Mulhall (2003) suggests that unstructured observation in nursing research has been little used but provides much insight into group interaction. Unstructured observation can provide a complete perspective of the phenomenon under study in its natural physical environment.

Some researchers such as Dunn (1988) triangulated both methods and their opposing paradigms, which brings into question the researcher’s epistemological, ontological and axiological assumptions. In other words, the creation of a research process that completely erases the contradictions in the relationship between the researcher and the researched might be impossible (Salmon 2010).

Observational data procedures

Generally, it is assumed naturalistic observation should not interfere with the participants or activities under observation and that rigorous standards should be adhered to in order to overcome potential bias, as described by Angrossino and Mays de Perez (2003). Angrossino and Mays de Perez (2003) suggest that all forms of observational research should involve three steps: descriptive observation (all preconceptions are eliminated and nothing is taken for granted); focused observation (researcher examines solely that which is pertinent to the issue at hand); and selective observation (focusing on a specific form of a more general category).

Observers’ descriptions should be factual, accurate and thorough, and should not contain irrelevant details (Patton 2002). The quality of observational reports is judged by the extent to which the reader can enter into and understand the situation described and can follow an audit trail (Moore and Savage 2002, Salmon 2010).
Advantages of a naturalistic setting

Naturalistic observations take place in the field (Adler and Adler 1994) and have several advantages:

- Direct observation allows the inquirer to understand and capture the context in which people interact. Understanding context is essential to the holistic perspective.
- First-hand experience of the setting and its individuals enables openness by the observer, oriented discovery and induction, since there is no requirement to rely on previous setting conceptualisations.
- The inquirer has the opportunity to see things that might routinely escape the notice of the individuals in the setting.
- The opportunity to learn things others would be unwilling to talk about in an interview.
- The opportunity to move beyond the selective perceptions of others.

The participant observer can discover things to which no one else has paid much attention. Getting close to individuals in a setting through first-hand experience permits the inquirer to draw on personal knowledge during the formal interpretation stage of analysis. Reflection and introspection are important aspects of the process. The observer’s impressions and feelings become part of the data. The observer absorbs information, forming impressions that go beyond detailed field notes (Mulhall 2003).

Covert or overt approach

Frequently, discussion has taken place about whether an observer should use the covert (concealed research) or overt (full disclosure) approach (van Deventer 2009) when collecting data. Covert methods are not necessarily harmful to participants, but the process of ‘open’ research may use procedures based on various levels of deceit (Homan 1991). Some observers believe deception in observational research is justified on the grounds of its benefits for others (Johnson 1992). In this respect, some areas of social life, institutions or organisations should be researched because it is in the public interest. Examples include studies of football hooligans or neo-Nazi groups, but the technique has not been used frequently in nursing research. Further benefits of covert research are thought to be (Homan and Bulmer 1982):

- Avoidance of observer effect (Hawthorne effect) – the participants’ behaviour may change if they know they are being observed.
- Researcher access to social groups who would otherwise not consent to being studied.

The criticisms of covert research are extensive. Herrera (1999) argues its use is a betrayal of trust, it ‘spoils the field’ for other researchers and brings all social science into disrepute. Advantages of the use of overt observation are thought to include (Macions and Plummer 2005):

- The avoidance of problems of ethics in that the group is aware of the researcher’s role.
- The group is being observed in its ‘natural setting’.
- Data may be recorded openly.
- Problems of ‘going native’ are avoided.

Ethics

Because participant observers aim to understand people’s social worlds from an insider perspective, there is prolonged immersion in the daily life of the group. This being the case, a number of ethical concerns should be raised. These relate generally to whether the subjects of research are aware of being research participants and whether they are able to provide informed consent or act on the principle of voluntariness (Oeye et al 2007). Informed consent is the major ethical issue in conducting research. It is one of the means by which a patient’s right to autonomy is protected (Fouka and Mantzorou 2011).


- All relevant aspects of what is to occur and what might occur should be explained to the potential research participant.
- The potential participant should be able to understand this information.
- The potential participant must be competent to make a mature judgement.
- The agreement to participate should be voluntary and free from coercion.

Should the research involve Maori participants, nurse researchers must consider their obligations under the Treaty of Waitangi (University of Canterbury 2014). In the UK and other countries, informed consent is underpinned by law (Royal College of Nursing 2011).

Obtaining informed consent raises issues for researchers. For example, it is naïve to assume everyone from whom data may be collected in a large healthcare organisation can be informed to the same extent and know to what they are consenting (Merrell and Williams 1994). Further, because of the tactical decision making that inevitably informs participant observation, gaining informed consent is an ongoing process, on a participant-by-participant basis.

In gaining consent, the researcher should address:
How consent forms and information sheets can be drawn up to know who is included in the project and who has not given informed consent.

How the participant observer addresses the issue of a participant (and their collected data) who leaves the project but remains in the field (Moore and Savage 2002).

Whether withdrawal of consent takes retrospective effect (Ellen 1984). Participant observers can rarely control who enters their field of observation, yet they have to ensure ethical practice is maintained (Murphy and Dingwall 2001). For example, ensuring informed consent and providing information sheets, knowledge transfer and protection of research participants are essential.

Current trends in observational research

Two new methods for observation in nursing practice might be emerging, as qualitative researchers develop methods of improving data quality. This is suggested, first, by Kragelund’s (2013) development of the idea of the ‘obser-view’ (a contraction of ‘observation’ and ‘interview’), a qualitative research method that generates data, incorporates reflection and leads to mutual learning (for researcher and participants) through what she refers to as a ‘learning space’. Second, Rollans et al (2013) developed the 4D&4R observational tool to record observational data, particularly clinician-patient interaction. The researcher using this method should be skilled in the process to balance the generation of data with the learning space.

The obser-view is defined as a researcher’s observation of a participant immediately followed by a common reflection between the two of them and by the researcher questioning the participant. The researcher serves as a catalyst for reflection, with the researcher and participant each reflecting on the situation in which they have participated (Kragelund 2013). Using linked observation and interviews provides insider and outsider perspectives. Kragelund (2013) suggests that the obser-view also offers an inter-subjective perspective and enhances research transparency, while engaging the ethical issues previously mentioned in this article. Transparency is achieved because the researcher and participant discuss the data immediately after collection and before the researcher commences formal analysis.

During any interview conducted by a healthcare professional, there is the potential for it to develop into a therapeutic experience and this is possibly

Perceived complexities

The methodology of observation has its roots in anthropology and the term has been used interchangeably with its offshoot, participant observation, contributing to confusion. Participant observation doubles as a synonym for fieldwork or ethnography; or for any approach that is qualitative (Coker et al 2013). The term is too encompassing, indicating only that studies involve researchers spending long periods watching and talking to people about what they are doing, thinking and saying; these studies are designed to see how people understand their world. To give credibility to a research project, it is essential for nurse researchers to provide details as to exactly how participant observation is to be used.

Adding to the confusion are shortcomings and controversies associated with observational methods. These include practical concerns, such as how to record data so that they are an accurate representation. Researchers carrying out observation may be challenged by other researchers about the credibility of their data (Baillie 2013). Potential ethical problems relate to informed consent, deception, choosing the role of observer, gaining entry and trust. The biggest criticism of observational methods is related to validity, although when the naturalistic setting is a hospital or hospital ward, observational methods can be valuable approaches for (Coker et al 2013):

- Addressing discrepancies between what nurses say when interviewed or surveyed and what they actually do.
- Providing insights into interactions.
- Seeing things that may escape conscious awareness among nursing staff because routines may be taken for granted.
- Capturing the context and physical environment in which nurses practice.

GLOSSARY

**Philosophical assumptions:**

- **Axiology** Refers to the role of values in inquiry.
- **Constructivism** The view that researchers individually and collectively construct the meaning of the phenomena under investigation.
- **Epistemology** The relationship of the knower to the known.
- **Ethics** The set of moral principles that guide a person’s behaviour. These morals are shaped by social norms, cultural practices and religious influences. Ethics reflect beliefs about what is right, what is wrong, what is just, what is unjust, what is good and what is bad in terms of human behaviour.
- **Interpretivism** The belief that reality is socially constructed and that the goal of social scientists is to understand what meanings people give to that reality.
- **Ontology** Refers to the nature of reality: for example positivists believe that there is a single reality, whereas constructivists believe that there are multiple, constructed realities.
- **Paradigm** A worldview, complete with the assumptions that are associated with that view.
- **Positivism** The view that social research should adopt scientific (quantitative) methodology.
Glossary (Continued)

General research terms:

Audit trail Resembles a map of where the researcher is heading. By the use of ‘signposting’ they are able to depict the methods required to get ‘there’ so that another researcher can follow easily and thus replicate the original research. A good audit trail ensures accountability of the research and its findings.

Bias An unintentional influence or effect that may occur at any stage of the research process and that distorts the findings. For example, sample bias, interview bias.

Credibility May be attained through a series of techniques including member checks, prolonged engagement, persistent observation and triangulation.

Data analysis The processing, summarising and interpretation of raw data into meaningful information.

Deductive A process by which general principles or theories are applied to a particular situation.

Inductive/induction A process by which principles or theories are developed from a particular situation or observation.

Ethnography A research approach usually involving the researcher studying individuals or groups in their natural setting.

Field The researcher conducts data gathering in the ‘field’ by going to the site where the participant group are to be studied.

‘Going native’ The researcher ceases to balance the roles of participant and observer and instead, simply participates like any other group member.

Informed consent Obtaining verbal or written permission from an individual to take part in a research study voluntarily.

Insider perspective Researchers are already part of the social group they intend to study; they are ‘native’ before the study commences.

Internal validity Reflects the extent to which a causal conclusion on a research study is warranted.

Naturalistic inquiry Focuses research endeavours on how people behave in natural settings while engaging in the experience (phenomenon).

Non-participant observation A technique for gathering observational data where the researcher is detached from the situation being studied.

‘Open’ research Researchers often: avoid full explanations of research to encourage participation; persuade people to participate; cultivate rapport so participants forget they are taking part in research; use data that are generated outside of that for which the participant has consented (for example research diaries).

Outsider perspective Researcher deemed not to be part of the social group under study.

Participant observation A technique for gathering observational data where the researcher is part of the situation being studied.

Phenomenon An event studied by a researcher.

Reliability The extent to which an instrument or technique shows consistency of measurement.

Rigour Is seen when extensive data collection in the field occurs or when the researcher conducts multiple levels of data analysis.

Structured observation Systematic investigations that generate numerical data.

Triangulation The use of two or more research approaches, data collection methods or analysis techniques in the same study.

Unstructured observation Relates to participant observation, naturalistic observation, ethnography, narrative methods and critical incidents. All approaches are relatively informal and do not rely on pre-specified coding systems.

Validity The extent to which an instrument or technique measures what it is intended to measure.

Voluntariness Principle conceived as a matter of individual decision making whether to participate in a research study.

Conclusion

Observation is a highly valued and effective qualitative research method as well as an essential part of nursing practice. Its value lies in informing researchers about the influence of the physical environment. Observation of what people do and how they do it can result in data that are revealing and powerful. However, the method is complex and challenging.

This article has documented the best available evidence relating to observation as a research method for nurses and has discussed recent...
trends in clinical practice, education and policy. It has addressed some of the practical and theoretical implications as well as the dilemmas and advantages associated with the technique of observation. Hopefully, it will have a positive effect on nurse researchers, and perhaps other healthcare professionals, and on practice and health and system outcomes for all interested healthcare providers and policymakers. Methods of addressing practical concerns and enhancing the quality of data will always be helpful to qualitative researchers seeking to use observation.

References


Fouca G, Mantzorou M (2011) What are the major ethical issues in conducting research? Is there a conflict between the research ethics and the nature of nursing? Health Science Journal. 5, 1, 3-34.


