Original Article

Shape of things to come: factors affecting an ethnographic study in radiation therapy

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Abstract

The research process is a series of stages necessary to establish the integrity, value, and feasibility of a proposal. Part of the preparation is in understanding the process and factors that can contour a study. The aim of this paper is to outline the hidden factors that may be experienced when undertaking qualitative research. Although the participants are the main players of the study additional influences also require recognition to allow transparency of the project and the researcher’s stance. The guidance of university supervisors has the potential to influence the researcher’s perspective and the effectiveness of the study. Negotiation with clinical staff can add another dimension. Ethics committees are composed of individuals with varied expertise, bringing their points of view into the discussion and decision making, impacting further on the proposed research. It is important for medical radiations professionals who become involved in research to be aware of these factors and how they may influence a project and to acknowledge the impact of the perspectives of the researcher on the project. The significance of this paper is to provide novice researchers, an understanding of the influence, hidden factors play on the results of qualitative research with particular reference to ethnography.

Keywords

Ethnography; qualitative research; radiation therapists; radiation therapy; research students

INTRODUCTION

The World Health Organisation (WHO) continues to emphasise the need for health and well being policies and practices to be evidence based. High quality research is central to supporting and promoting this evidence based practice. Research provides insight and new knowledge into the management of diseases and provides governments and communities with an understanding of health issues and changes in social practices.1,2

Clinical practice and health policies are grounded in empirically based research which highlights why quality research is instrumental in the improvement of health care.3–5 It assists in developing an understanding and workings of supports, interventions, procedures, processes, and outcomes. Evidence based practice also encourages health professionals to engage in reflective practices and critical thinking, promoting an increase in awareness and knowledge in their chosen field of health. Without
these inquisitive individuals, communities and countries would not have the opportunity to improve living conditions and provide alternatives in health management.

Achieving good quality evidence is difficult and the task is beset with problems and researchers are faced with many challenges and obstacles. The research project can be influenced by several factors often not apparent to the novice. The aim of this paper, therefore, is to outline the factors that shaped an ethnographic study for a PhD study on the interactions between radiation therapists and cancer patients. This paper begins with a discussion about the factors “shaping” the research proposal prior to and during submission for candidacy and ethics review. Further discussion is centred on gaining access to the community of interest and the “doing” of the project. This is followed by examining the influence and importance of the researcher’s perspective on the project. Finally, this paper draws on the process and relevance of these steps in shaping the study and the possible outcomes as a result.

**AT THE START: PROPOSAL PREPARATION**

Entrance into the world of research unearths a plethora of challenges for the student researcher. After many years working as a radiation therapist in the clinical radiation oncology environment, the primary author of this paper decided to combine her clinical experience with further study. She completed a postgraduate health science degree. This created an even greater desire to be involved in clinical research.

The first decisions that shaped her ideas into a proposal were based on discussions with experienced researchers. The choice of supervisors was directed by both the research interests and intent and how the aims of the inquiry could be best met. A qualitative study was deemed the most appropriate approach for research exploring radiation therapists’ interactions with patients. Conducting a literature review and deciding on the methodology undertaken relied largely on the advice of these mentors because the researcher was the novice entering unchartered waters.6,7

These decisions made, the candidate progressed to writing the summary proposal for the candidacy committee (Faculty Graduate Studies Committee) to scrutinise. It became obvious that the influence of the supervisors who formed the interim thesis committee, with expertise in understanding the criteria for candidacy, would have an impact on how the study would be conducted. Guided by these supervisors the study was sculptured to what the Faculty Graduate Studies Committee would acknowledge as a well planned and feasible proposal. This is a standard process that students undergo to achieve candidacy.

This Curtin University committee look for “Definition of an acceptable research program, including its objectives, methodology, facilities and resources and a time schedule for completion.” Further to this the advice given is: “Your Interim Thesis Committee will guide you in the development of your application for candidacy including your research proposal.”8 The many perspectives of the people who form these committees and the subsequent input from each member further crafted the project. It became apparent that it was critical to gain the ideas and advice of the experts within academia and research paradigms despite wanting to be independent and “do one’s own thing.”

There is no equivalent of reliability and validity in qualitative research, but rather qualitative researchers rely on rigour and other checks when referring to the accuracy and consistency of the measurement strategy used.9 The guidance of experienced researchers, through the process of structuring the study, established a robust and rigorous study. Informal discussions with clinical colleagues were also instrumental in shaping the student’s thoughts and ideas about the execution of the project. Recognition of the clinical relevance of this study also plays a significant part in the validity of the study as it will build on existing research and future changes in clinical roles and practices.
Each of the student’s supervisors comes from different health backgrounds of radiotherapy, psychology and nursing and all have a passion for qualitative research and communication. Supervisors also contribute to the research as role models, mentors and providers of different viewpoints. The relationship with this student’s supervisors has been one of encouragement and support. It has provided valuable feedback and other perspectives. Despite this, it has alerted the student to the way her initial idea changed to work within the loosely woven guidelines that the university requires. It has provided insight into how important it is to understand one’s own biases and perspectives and what they bring to the research. Later in this paper the importance of the researcher as the research instrument, from the author’s personal experience, is discussed in further detail.

AIMS AND PURPOSE

In the next paragraphs the aims and purpose of the study are briefly outlined. Although it is not the main discussion of this paper it has been central to the research experience and worthy of mention for the reader to gain a more complete picture.

The purpose of the researcher’s PhD project is to gain an understanding of the underlying beliefs, values, practices and systems that form the culture of Australian radiation therapists and to explore the interactions of radiation therapists with cancer patients within that culture.

The research questions guiding this study are: “What are the underlying beliefs, values, practices and systems that form the culture of Australian radiation therapists?” and “How does the culture of radiation therapists impact on the interactions between radiation therapists and cancer patients undergoing radiotherapy?”

The purpose of this study is to provide an overall view of the radiation therapist profession. The findings of the research may assist future measures of supportive patient care within radiotherapy. It is also likely to enhance improvement in approaches to future learning opportunities of radiation therapists, particularly in the education of supportive patient care and communication skills which could benefit future areas of career development and advancement.

METHODOLOGY

Ethnography is a methodology requiring the researcher to become immersed in the culture being studied. Fetterman explains that the definition of culture is often taken from one of two perspectives, either based on behaviour of a group of people or based on the beliefs and knowledge of a group of people. However, he adds that both perspectives are useful to assist the ethnographer to understand the thinking and behavioural characteristics of a group of people within their natural setting. In a similar definition of both perspectives, DePoy and Gitlin have summed up the culture of a group as the rules and regulations, customs, habits and particular characteristics that direct patterns of human activity within the group.

Ethnography has its roots in social anthropology but in more recent years it has been used successfully for research studies in both health and social sciences. It has encouraged the investigation of a variety of issues that may not be possible with surveys and interviews alone. Several Australian doctoral students have used ethnography to answer questions in a variety of areas of nursing including renal nursing, palliative care, intellectual disability and haemodialysis.

One example of the successful use of ethnography in health research is a doctoral study by Hardcastle on the decision making of renal nurses in far north Queensland. The study was undertaken in a rural renal unit where the primary care givers of the patients are the renal nurses. This thesis used ethnography to investigate the assumptions of these nurses being autonomous in their decision making and the implications of these assumptions on accountability. As a result of this comprehensive study, Hardcastle made some recommendations for
further research into the role emotions play in decision making, a need to acknowledge risk and uncertainty with decision making and the ethical concerns that are imbedded in the daily practices within a small rural renal unit.

As ethnography has been used successfully in health research it was chosen as the appropriate approach to answer the research questions that would enable the researcher to gain an understanding of the culture of radiation therapists and explore interactions between radiation therapists and cancer patients within that culture.

**Ethics**

Ethics approval is an essential process required in research in health sciences or any research involving humans. In Australia the National Health and Medical Research Council (NHMRC) set the ethical standards that researchers are required to work within. Each institution also has an ethics committee that reviews submissions prior to the research being undertaken.

These committees consist of a multidisciplinary group of people including academics, lay people and consumer representatives. Each member brings his/her personal and professional perspective to the committee providing many different and overlapping points of view. The diversity of the group will ensure decisions and recommendations are made in the best interests of the prospective participants of the proposed research. The flip side, unfortunately, is that not all members have an understanding of different methodologies particularly those of a qualitative nature. They may therefore impose further restrictions and make recommendations about changes that need to be made to the research.

A recently published paper by McLoughlin outlines the experiences of research and ethics committee dilemmas and challenges while undertaking a study in palliative care. McLoughlin expresses the frustration and confusion experienced with submissions of the same project to different ethics committees with different outcomes and the underlying subjective nature of the process.

Although the experience of frustration McLoughlin encountered was mirrored somewhat by the primary author, it was centred mostly on providing greater clarity for the committee. The Curtin University ethics committee required written consent to be collected from all participants before commencing any observations which restricted the original plans that had been made.

Disjointed observation, awkwardness and disruption were some of the issues directly related to adherence to ethical requirements experienced by Moore and Savage while undertaking participant observation in a clinical setting. Several qualitative researchers have questioned the practical application of the ideals of informed consent in a clinical setting, particularly when carrying out field work as a participant observer. However, according to both the NHMRC and the Association of Social Anthropologists of the UK and the Commonwealth informed consent should be seen as an ongoing process that ensures the interactions that occur between the participants and researcher are both respectful and honest throughout the course of the research.

The practical application of informed consent is reflected in the experiences of ensuring written informed consent encountered by the researcher. It had been anticipated that verbal consent would have been sufficient from those who were being observed to allow greater flexibility in how the observations were carried out. Gaining written consent prior to observing the patient in the treatment room required more time spent with each patient. This resulted in fewer patients being consented. This sequence of events also indicated to the treating radiation therapists those patients who had consented. As a result the interaction between the patient and the treating radiation therapists may have been affected.

This experience demonstrated how an ethics committee can contribute to shaping a research project before it begins. It also highlighted the
importance of this stage in the boundary setting of the study by determining and establishing the population to be studied, the reasons why, the appropriateness of the extent of the study and the necessity of informed consent.\textsuperscript{13} Although this can cause some redesign and anguish for a researcher it is important to acknowledge each ethics committee works in the best interest of the participants and in this way also provide a guide for the researcher in their ethical responsibilities.\textsuperscript{9,13,27}

ENTERING THE FIELD: NEGOTIATING ACCESS AND gaining consent

It is necessary to establish the research setting of where it will be, who will participate and when it will take place.\textsuperscript{28} However, before entering the field there are a number of issues to consider because gaining access requires both permission from the management of the proposed community of interest and the governing ethics committee.\textsuperscript{9,13,27}

The members and leaders who have the power to approve access to the field are often referred to as gatekeepers.\textsuperscript{29} The influence of the gatekeepers can impact in a variety of ways as several studies have shown. A study of primary care based palliative care undertaken in 2004 found recruitment of participants was restricted by practitioners. This situation provided the researchers with challenges in acquiring a sample representative of the population being studied.\textsuperscript{30} Another palliative care based study found clinicians became gatekeepers in the selection process of those patients that they considered, in their personal interpretation of the criteria, were most suitable to participate in the study while protecting other patients they considered vulnerable.\textsuperscript{31}

These examples highlight the influence gatekeepers can have on the research process. This was also recognised by Hammersley and Atkinson\textsuperscript{32} who stated “...even the most friendly and co-operative of gatekeepers or sponsors will shape the conduct and development of the research.” The primary author also experienced the input of gatekeepers in establishing the research area and participants within the radiotherapy centre.

It was important to liaise with the managers and site supervisors to give a brief presentation of the proposed study to help inform potential participants and to disseminate the information to the broader radiation therapy clinical community.

Radiotherapy management appointed a clinical mentor, someone within the clinical area that the researcher could discuss any concerns and who would ensure she kept her ethical responsibilities. The clinical mentor acted as another gatekeeper in making decisions where it might be best to start the observations. It was well intentioned and the researcher readily took the guidance but realised that it warranted recording to allow for a greater understanding of any potential impact it may have on the study at a later stage. Clinical mentors and supervisors play an important role in assuring the research is performed within legal and ethical expectations. However, as discussed earlier their input can influence the study. The amount of influence will of course depend upon the amount of time, interest and involvement of the clinical liaison.\textsuperscript{20}

Before observations could start further negotiating for access to treatment areas was required through introductions to the charge radiation therapists and the treatment teams. Further gate keeping also occurred with these senior staff members making decisions in the best interests of staff.\textsuperscript{9,29} This was as simple as requesting that no observations take place over the lunch hour when there were less staff rostered to the area.

It also required an understanding of the workflow and time management on any one treatment machine at any given time and the potential impact that the researcher could impart while being present. Despite this, a range of strategies were considered in order to minimise any impact the researcher had in the field during the visits. Although the researcher had not worked in this particular environment, as
a radiation therapist she had the advantage of understanding the pattern of work and the importance of not interrupting the workflow with her presence.

**THE DOING: OBSERVATION AND PARTICIPATION**

Observations of health professionals and patients within a treatment centre can be fraught with a number of practical challenges, adding to those already shaping the study. The privacy of the study participants must be considered at all times. Data must be collected and stored appropriately including any conversations with members of the study location or reflective/reflexive journaling of the researcher. Another important challenge is gaining the trust of the participants and in turn trusting in them for the observations of the daily happenings to be as close to the truth as possible rather than the performances of the participants being heavily distorted by the presence of the researcher.¹⁹,²⁹

The importance of this relationship building is highlighted in the literature. Brewer reflects on this as a process that takes time and is built on the same values as in any other social relationship which is usually based on both verbal and non-verbal actions.²⁹

Establishing rapport, as the literature stresses, is essential in qualitative research particularly ethnography where the researcher endeavours to become a participant observer. Despite the familiarity of the researcher with the profession, apprehension from the treatment team provided an initial challenge in the formation of a trusting relationship. The tension arose from the researcher’s presence interpreted as an auditing process where the team would be rated on their performance.¹⁹

Some strategies used in building rapport and to reduce the effect of the presence of the researcher have also been discussed in the literature. Bonner and Tolhurst³³ discuss their insider/outsider experiences while undertaking participant observation and divulge several successful strategies they used. One of these strategies was to deliberately dress in similar style to the nurses under observation. This strategy was adopted by the primary author who decided to dress in similar coloured clothing as the uniforms worn by the radiation therapists.

A second strategy undertaken was spending considerable amounts of time drinking coffee with the radiation therapists away from the treatment area, at tea-breaks. These approaches helped the researcher become part of the team and to assimilate with the environment, to develop as the insider and to become less obvious as the researcher.²⁹,³³,³⁴

Patients, as participants, can challenge the researcher on a number of levels. Exposure to people dealing with pain, injury or life threatening disease could place emotional burden on the researcher, particularly if unaccustomed to hospitals or health treatment centres.³⁵,³⁶ Having been a radiation therapist for many years this, at least, was not an issue that concerned the researcher. She was fully aware that the patients are vulnerable and at no time should the observations become onerous to them. Before recruiting any patients it was ensured that consent for participation from the treatment team of radiation therapists had been gained. Taking time to get to know the team and develop a trusting relationship enabled the researcher to gain guidance about individual patients’ suitability for participation.

It was also important to spend time away from the field to reflect on the observations and conversations. A complication of being an observer is structuring the amount of time present in the field. A range of times and flexibility can overcome this with breaks from the field necessary to enable further refining of the research process. This was something that, for the researcher, was not always easy to manage as it was felt that something remarkable or noteworthy would be missed. However, as suggested by Silverman, observing everyday happenings can create boredom as it may seem that nothing is happening but it is important to delve deeper. Taking time away from the setting can assist the analysis and refining of the observations to re-enter the setting afresh.³⁷
RESEARCH INSTRUMENT: THE RESEARCHER’S PERSPECTIVE

Interpretations of what is studied are dependent on the stance of the researcher. The position, of the researcher as with any qualitative researcher, is an important element throughout the study. We all bring these personal perspectives to our research, but by establishing what these are and with the use of reflective and reflexive practices we can provide a clearer picture of the project for others.32,38,39

Enthusiasm of a subject is often the driving force behind an individual’s decision to undertake research along a particular trajectory. Choices and decisions of the researcher are influenced by the paradigms of the world of that individual. According to Mezirow and Cranton “self” as an influencing component depends upon a unique combination of family and culture, religious/spiritual beliefs, education and professional training, friends and social environment, as well as previous knowledge in the area.40,41

The primary author came to this research as a white Australian female of the baby boomer generation with over three decades of involvement in radiotherapy as a radiation therapist. She undertook an ethnographic study as a PhD candidate to quench a desire to contribute to her profession in the development of the radiation therapist as a professional and the role of supportive patient care within the profession.

Over several decades many changes have taken place with new technology and improved treatment conditions. Radiation therapy is now recognised as one of the important treatment modalities for cancer, with the current recommendation by the Royal Australian and New Zealand College of Radiologists (RANZCR)42 suggesting that at least 50% of all Australian cancer patients receive radiation therapy at some point during their disease. This recommendation is based on the study undertaken and published in 2005 by the Collaboration for Cancer Outcomes Research and Evaluation (CCORE) Liverpool Hospital and the University of New South Wales, Sydney.43

The instigation for this research was a quest for increasing awareness and changing practices to continue to embrace and enhance a supportive patient care environment within the Australian radiotherapy culture. Thus, to ensure a clear understanding of the research for the reader, it is important to outline the researcher’s influencing components because it confirms the perspective through which the observations are made.29,44,45

INSIDER/OUTSIDER

Participant observation refers to a method that requires the researcher as observer to participate in the daily happenings of those being studied. The reason for such closeness is for the researcher to not only observe what is going on but to experience and share in the daily practices of the people. The challenge for the researcher in this method is being able to balance closeness to the people of the study while maintaining a certain distance that enables observation and data collection.29 The ethnographic researcher carrying out studies within their own culture is often referred to as insider/outsider. This is based on how the researcher attempts to understand the natives’ perspectives while not being a part of that culture.25,33,46

The insider/outsider situation is well documented in the literature. Gerrish stresses the importance that the researcher must resist any temptation to “go native” despite experiencing any pull to become totally immersed in the natives’ world.25

The importance of this became increasingly obvious as the researcher immersed herself in the field and grappled with the insider/outsider situation. Observations took place over lengthy periods of time so she became very familiar with the setting. During the weeks spent observing and chatting with the staff it became harder to consider herself as the outsider. The temptation to become one of them was very strong.

As discussed earlier the ethnographic process is a series of immersions into the field and then leaving it to analyse the data with the
intention of narrowing the focus. Exiting the field can also be difficult, particularly at the completion of the observations and how the researcher manages this can also impinge on the study. There are two aspects of exiting the field. Brewer discusses these as the physical motion of leaving and the emotional detachment. The physical exit of the researcher was not a significant event in itself but the emotional disengagement created a mental struggle and many thought provoking moments.

REFLECTIVE JOURNAL

To enable clarity of thoughts an observational researcher can benefit from keeping a record of feelings, opinions and ideas that occur throughout the length of the research. It is for these reasons the researcher kept a reflective journal of her personal feelings, thoughts and reflections. Reflective journaling provides an avenue to vent, to discuss relationships, and offer reflection of what is occurring and what is not happening as the researcher has anticipated.

In the unique position of insider/outsider it would be negligent not to consider that any feelings of discomfort have the potential to contribute to the “observational lens.” During fieldwork the researcher may experience emotional episodes for a variety of reasons and perhaps will turn to supervisors for debriefing. Supervisors may not be immediately available, and as this researcher found, reflective practices can also be helpful at these times. Writing down feelings and incidences can clear the mind and assist critical thinking and reasoning. Further reflection can take place afterwards to analyse the crisis and place the event into perspective within the study and researcher stance.

Taking Shape: Processes and Outcomes

The research was pummelled by many factors into its final shape. The research became an organised process through the writing of the proposal, the formation and support of a supervisory team, university approval and ethics committee(s) approvals. These processes contributed to the rigour of the project. Structure and boundary setting ensured the size and scope of the research was feasible, the data collection and methods appropriate and ensured the safety of the participants involved.

It is also important for the researcher to recognise the effect they have on the analysis and the presentation of the data. A record of feelings and attitudes kept by the researcher throughout the course of the study can further assist and strengthen the study. Reflective journaling enables the process to be transparent with any influence that the researcher has on the study documented and included as part of the research outcome.

Triangulation involves verifying data by using more than one source. It is described by DePoy and Gitlin as “Use of multiple strategies or methods as a means to strengthen the credibility of an investigator’s findings related to the phenomenon under study.” In addition to the methods outlined, a strategy for this study was employed to use a second radiation therapy site to confirm emergent themes to strengthen the credibility of the study.

Transferability of a study refers to the findings of the research continuing to have the same meaning when applied in a similar context. The setting, research instrument, methods and sources of data collection and the data analysis of a study must be clearly described enabling other researchers to make their own decisions on the transferability of results.

Understanding and documenting every detail that contributes to the doing of the research supports the transferability of the study and adds to the trustworthiness of the study.

Both the dependability and confirmability of a study can be achieved with a high degree of auditability. A documented decision trail indicating the stability of the data over time and the consistency of the methods and procedures drawn on can assist in assuring the dependability and confirmability of a study. It is, therefore, important to understand and to document...
the research process with recognition of the factors that shape or have potential to affect the way the research project is executed.

CONCLUSION

Each step in the research process is a blend of many small parts. Each pathway for a research project will be unique and shaped by the steps that are taken and by what those steps entail. If the researcher was to start this research study again it could take a different shape depending on what decisions and actions are made at each step along the way. This does not mean that the procedures and outcomes are dismissible. Indeed, it indicates the complexities involved with naturalistic research, in particular ethnography and highlights the need for transparency in the documentation and execution of the study. It also reflects the importance of boundary setting such as the appropriateness of the scope of the study, the population to be studied, the reasons for the study and acquiring informed consent.

In conclusion, the steps required in conducting a qualitative research project, such as ethnography, are an important part of the research design. This structure ensures a high level of rigour is obtained. It also provides the novice researcher with knowledge and understanding of the importance of the processes and procedures put in place to achieve a high standard of research. Once equipped with this knowledge and understanding, novice researchers are well prepared to undertake future quality research which is required for enhancing clinical practice and health policies.

References