

# General practitioners learning qualitative research: A case study of postgraduate education

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## Background

Qualitative research is increasingly being recognised as a vital aspect of primary healthcare research. Teaching and learning how to conduct qualitative research is especially important for general practitioners and other clinicians in the professional educational setting. This article examines a case study of postgraduate professional education in qualitative research for clinicians, for the purpose of enabling a robust discussion around teaching and learning in medicine and the health sciences.

## Method

A series of three workshops was delivered for primary healthcare academics. The workshops were evaluated using a quantitative survey and qualitative free-text responses to enable descriptive analyses.

## Results

Participants found qualitative philosophy and theory the most difficult areas to engage with, and learning qualitative coding and analysis was considered the easiest to learn.

## Discussion

Key elements for successful teaching were identified, including the use of adult learning principles, the value of an experienced facilitator and an awareness of the impact of clinical subcultures on learning.

## Challenges for clinicians in teaching and learning qualitative research

Qualitative research in medicine and health sciences is increasingly recognised.<sup>1-5</sup> However, teaching and learning in these disciplines involves two challenges. First, clinicians are exposed to a limited range of philosophy and theory during their undergraduate education. Biomedical theory and 'grand theory'<sup>6</sup> typically dominate what is understood as theory in most Western medical curricula. Second, there is a paucity of research about teaching and learning qualitative research in medicine and health sciences, and a subsequent lack of informed debate about effective strategies. Access to such research will potentially enhance the design of qualitative research teaching, similarly to what is occurring in other disciplines that heavily rely on the scientific method, such as psychology.

## Key differences between biomedical/health sciences and social sciences

There are key differences between the biomedical/health sciences and social sciences when defining what constitutes knowledge, science, theory and research practice. As qualitative research derives from social sciences (and humanities), it is necessary to understand these differences. Briefly, qualitative research is informed by an interpretivist paradigm, where knowledge is context-specific and dynamic. By contrast, quantitative research is informed by a positivist paradigm, where knowledge is absolute, static and reductionist.<sup>7</sup> Furthermore, interpretivist researchers typically select a theory from a range of theories to interpret and explain phenomena. Although the philosophy of science<sup>1,2,8</sup> and theory<sup>6</sup> are essential to understanding qualitative research, communicating this complex material to learners who have little or no background knowledge in the social sciences or humanities can be challenging.

## Professional subcultures and learning qualitative research

The positivist paradigm is embedded within the biomedical model. This can create particular challenges for clinicians as they transition towards becoming researchers.<sup>9</sup> General practitioners (GPs) and other clinicians who are engaged in health sciences research often encounter qualitative research in their research journey and learn 'by doing' as they do with other clinical skills. Initially, GPs often take on qualitative research projects in clinical practice and share their research experiences with peers. Professional subcultures such as this are produced and reproduced through everyday life in the workforce.<sup>10</sup> Training in the clinical healthcare setting typically results in applied, rather than theoretically informed, learning.<sup>11</sup>

## Methods

### A case study of postgraduate professional education

This analysis presents a case study of the teaching and learning processes involved in a series of qualitative research workshops delivered in February and September 2013, and February 2014. The University of Queensland Human Ethics Committee provided ethical clearance (reference number 2014000829). The design of the workshops drew on two areas of expertise:

- the lead author's (JH) expertise in teaching and conducting qualitative research
- the second author's (MK) knowledge and experience in conducting qualitative research as a GP, and input from potential participants about their learning needs.

The workshops were also informed by principles of adult learning, or 'andragogy',<sup>12</sup> which encourages participants to ask self-directed questions, and bring their professional lives and ongoing qualitative research projects into discussions. A set

of PowerPoint slides was used to communicate key points at the beginning of the workshops. In workshops 2 and 3, participants were given three articles, written by the lead author (JH), as examples of applying three types of qualitative analysis (content, thematic, discourse).

At the time workshop 3 was held, the participants' enthusiasm to learn about qualitative research influenced the facilitators' decision to collect evaluation data and write an article to contribute to this area. All data about the three workshops were collected at the end of workshop 3. Of the 13 participants at workshop 3, four had also attended workshop 2, and of these, three completed all three workshops.

Data about the total number of attendees at workshops 1 and 2 had not been collected previously. This article is based on all of the data collected about these workshops. We asked three main research questions:

1. To what extent did participants find the teaching and learning approach acceptable?
2. Which areas of qualitative research did the participants find the most challenging?
3. Which workshop features did the participants find the most useful?

### Learning objectives and outcomes

The workshops included the following:

Learning objectives:

- to provide an introduction to the relationship between philosophy/theory and qualitative research
- to examine different types of coding and qualitative analysis
- to provide practical experience in coding and thematic analysis.

Learning outcomes:

- explain how philosophy/theory informs approaches to qualitative research.
- be able to identify three types of qualitative analysis.
- conduct basic coding and thematic analysis.

Workshop 1 covered four areas:

- philosophy and theory
- research design and methods of data collection
- sampling
- reliability and validity.

On the basis of participants' initial feedback, the content of workshops 2 and 3 was modified to include three key areas:

- philosophy and theory
- types of analysis
- coding and analysis.

Sampling, reliability and validity were also discussed at various times because of the interactive nature of the workshops.

The 13 participants comprised a purposeful convenience sample and were not representative. Eleven participants were female and two were male.

There were five GPs, one public health physician, one pharmacist, one midwife, one dietitian, one registered nurse and three health science PhD researchers. Participants were aged 24–57 years, and all were affiliated with the Discipline of General Practice, the University of Queensland, through ongoing research projects.

The evaluation framework comprised two components:

- Quantitative data collected using a Likert scale on two sections of the workshops:
  - Section 1. Areas of qualitative research: the 5-point scale included possible responses about the extent to which the areas would be applied to actual qualitative research practice, where 1 was 'never applied to research practice', and 5 was 'applied to research practice'.
  - Section 2. Content and presentation: the 5-point scale included possible responses about the extent to which the content and presentation had relevance and quality, where 1 was 'poor' and 5 was 'excellent'.
- Qualitative data collected by providing an unstructured blank area on the evaluation form where participants could write comments on sections 1 and 2.

## Results

The Likert scores were totalled and the average determined for each workshop section and each workshop. The qualitative comments were analysed in terms of the workshop sections mentioned by the participants (*Table 1*). Although the participant numbers were low, these analyses illustrate the workshops' main strengths and weaknesses.

### Easy and difficult areas of qualitative research

The quantitative evaluation data showed that participants found the workshops very useful and their new knowledge was considered readily applicable to their research practice (eg for ongoing projects and new grant applications). The average rating for all areas for workshops 1, 2 and 3 was 4.10, 4.20 and 4.35, respectively, which shows a small increase in the

acceptability and relevance of the workshops and application of content.

Participants reported that philosophy and theory of qualitative research was the most difficult aspect to understand and apply. This area consistently scored the lowest of all areas across the three workshops (3.5, 3.25 and 4.1). The easiest and most useful area was coding. The practical exercises that were included in workshops 2 (4.25) and 3 (4.2) were especially well received. The qualitative comments confirmed these findings (*Table 1*).

The similarity between the quantitative and qualitative results supports the validity of the findings. The workshop facilitator (JH) received high scores (5.0) across all three workshops. The participants appreciated the learning experience and facilitator's 'flexible' style.

## Discussion

### Why were some areas of qualitative research easy and others more difficult?

The area of philosophy and theory was the most difficult for participants to understand and apply in their own research projects. This area, which includes design, questions and analysis, is essential to inform qualitative research.<sup>6,8</sup> Participants' unease about working with philosophy and theory can be explained, at least partly, by their previous training as health professionals, which is grounded in biomedical theory with an applied rather than theoretical orientation to knowledge and research.<sup>10,11</sup>

The inclusion of practical, clinically oriented exercises in workshops 2 and 3 was well received. Participants clearly found qualitative coding and thematic

**Table 1. Evaluation of workshops 1–3: Qualitative comments**

Item	Workshop 1	Workshop 2	Workshop 3
<b>Workshop as a whole</b>	<i>'Very timely session with respect to my current qualitative research.'</i>	<i>'Great session, again very timely.'</i>	<i>'Would have liked more time on practical skills, reliability and validity, and less break time.'</i> <i>'Thank you!'</i> <i>'All good. Great balance between information and exercises helped to put things in perspective.'</i> <i>'Brilliant!'</i>
<b>Philosophy and theory of qualitative research</b>	<i>'I just couldn't clearly place how the deeper theory we covered applied or could be applied to improve my projects.'</i>		
<b>Coding</b>		<i>'Developing a coding frame highly relevant but something I still struggle with in practice.'</i> <i>'Still a little unclear about moving from coding categories to developing themes.'</i>	<i>'Would have liked more time on coding and analysis. How do we start writing and turning research into papers?'</i> <i>'The practice was an excellent idea for demonstrating how differently people categorise things.'</i>
<b>Content and presentation</b>	<i>'I had trouble retaining this (theory) or understanding how it applied.'</i>	<i>'Going through an interview was very helpful.'</i>	<i>'Suggest handouts better used as pre-reading and follow-up coding exercises in class.'</i> <i>'Very helpful and interesting – I just want more knowledge and experience!'</i> <i>'Presenter's flexibility was valuable – dealing with all those questions may have threatened the timeframe but helped us all to learn from a practical perspective.'</i>

analysis to be the easiest to understand, and it is likely that the participants appreciated the tangible outcomes.

### Teaching and learning approach and professional subcultures

The workshops were grounded on the principles of adult learning<sup>12</sup> and this was a highly effective approach that enabled the participants to identify their specific needs through interactive engagement. The addition of clinical concepts into the teaching, especially in workshops 2 and 3, enabled the participants to better integrate their professional experience with their learning of qualitative research.

The workshop processes also involved professional subcultures that were reinforced through ongoing learning and day-to-day observations of, and interactions with, others.<sup>10</sup> Clinical subcultures within the workshops may have, at first, structured participants' interactions with other participants from the same subculture. In this sense, at the beginning the group had not yet 'changed states' from clinicians to researchers.<sup>9</sup> Over the period of three workshops these processes changed as participants engaged with the whole group rather than a specific clinical group.

### Implications for general practice

Teaching clinicians about qualitative research, and their learning in this area, remains poorly understood and under-researched. General practice and primary healthcare research is increasingly dependent on qualitative research, to understand patients' experiences, the implications of population surveys and to inform the development of health services. Our case study presents an analysis of three postgraduate professional educational workshops on qualitative research, identifying how the clinician's professional subcultures remain salient in such learning.

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