An overview of qualitative research

In this article (part 1 of two), Thérèse Kairuz, Keith Crump and Anthony O’Brien provide an overview of qualitative practice research in pharmacy.

Pharmacy practice research has been defined as the rationale, scope, efficiency and effectiveness of pharmacy practice. It was described in 1991 as a “new and rapidly expanding area of research” which includes a wide diversity of topics such as research into health services, patient populations, service providers and pharmacists. Contributions to the field of pharmacy practice include findings from academics, pharmacy practitioners and pharmacy students, and this article will introduce the reader to aspects of qualitative research, with the aim of stimulating interest in the use of this methodology.

Part 1 provides a brief overview of qualitative research for pharmacists and part 2 provides practical advice on the collection of data using focus groups or in-depth interviews and suggestions regarding data analysis. The reader is encouraged to obtain additional information from the references listed in the bibliography.

Academics from sociology, anthropology, psychology, economics, history and statistics have addressed questions regarding health, pharmacy and drug use. The use of drugs and health services may be determined quantitatively using techniques such as drug utilisation studies or survey methodology, where findings are expressed in numbers or percentages. Quantitative studies can answer questions related to “what” is happening. On the other hand it may be important to explore “why” it is happening. Qualitative research is often exploratory and can be used to generate hypotheses, whereas quantitative studies are designed to test them.

Health care problems are recognised as complex and should be researched in a manner that can cope with the complexities. Pharmacy has a direct interface with the public and provides a service to an increasingly wide range of customers. It is inevitable and appropriate that pharmacy practice research has a social or environmental orientation and it has been suggested that pharmacy practice researchers need to have an understanding of the wider social care role of the pharmacist. Qualitative methodology allows the researcher to interpret phenomena according to the context and individuals being studied, and has been identified as being useful when approaching a research question where there is little established knowledge. It can be used to preserve the personal qualities of human viewpoints and offers a way of retaining the uniqueness and complexities of individuals. By the early 1990s there were only a few published pharmacy practice studies which depended primarily on qualitative methods. However, qualitative approaches have gained an increased prominence in health services in recent years.

“Grounded theory” is a term used in reference to the creation of theory based more on observation than on deduction. It is a qualitative method that uses a systematic set of procedures to develop an inductively derived theory about a phenomenon. In order to develop a grounded theory, a research question or questions that are broad and flexible, allowing freedom to explore phenomena, are required. The grounded theory approach, or a derivative thereof, facilitates the active engagement of the researcher in close and detailed analysis of the data, thereby stimulating and disciplining how the researcher imagines theories. Qualitative research can be systematic, while at the same time stimulating and creative. The grounded theory approach sees the over-riding concern of qualitative research as the generation of theory.

The aim of qualitative research is to explore issues from the perspective of respondents and addresses human projects such as the nature and structure of peoples’ attitudes, feelings, ideas, thoughts, frames of reference, motivations and learning processes, among others. It can grasp wholeness, complexities and relationships, and is context-dependent. Qualitative research can thus be used to preserve the personal qualities of human viewpoints. It has been used to explore different aspects of professional practice from the 1980s through the 1990s and into the 2000s.
Although qualitative studies may provide valuable information and insight into phenomena, qualitative methodology has been described as a “less reliable” form of research, and the issue of rigour must be addressed.

Qualitative research criteria

The rigour required when undertaking qualitative research is of paramount importance. There have been a variety of methods that can be used to explore phenomena in a qualitative manner, including interviews; focus groups; and observation. Sampling strategies may be purposive, representative, and theoretical.

The criteria for establishing methodological quality reflect the nature of the research topic and the theoretical viewpoint of the researcher. Different qualitative research types have their own data-quality procedures and therefore different opinions on the criteria required for qualitative research. Validity and reliability are considered important on the one hand and truth value, applicability of findings, neutrality and consistency of data, collectively referred to as “trustworthiness”, on the other.

The rigour required when undertaking qualitative research include ensuring that data are robust and fully explore the research topic. Data content in qualitative research is guided by the response to questions with the participant, or research subject, serving as the data source. It is important that data collected are not anecdotal and they must be tested for validity. Methods that can be used to ensure robust data include the following:

- Refutability principle, whereby the researcher seeks to refute his or her initial hypothesis.
- Constant comparative method, in which the researcher seeks another case to test his or her initial hypothesis.
- Comprehensive treatment of data, which includes all data collected within the analysis process.
- Deviant case analysis, which involves actively seeking out and addressing deviant data.

Validity of qualitative research

When developing research that broadens collective knowledge it is important to ensure that the method and process have external validity. Arguing that in qualitative studies, the traditional concepts of reliability and validity do not apply and should be reinterpreted as credibility and accuracy of the way in which material is presented, the authority with which the researcher develops the material is an additional criterion for determining methodological standards in qualitative studies. In a paper exploring rigour in qualitative research, Kretinin developed a model proposed by Guba (1981) that enables critical appraisal of qualitative research. The model uses four concepts which reinforce trustworthiness: truth-value, applicability, consistency and neutrality. Kretinin develops these themes and explores techniques that can enable the researcher to strengthen the rigour of his or her study.

Truth-value

Truth-value informs the reader that the researcher has a basis of confidence in the findings he or she has presented. Qualitative research relies on truth-value as an expression of the human experience of the subjects under investigation. The data are therefore a product of the subject and require that the researcher be able to present this experience in a form that is credible. Methods that can strengthen truth-value include adequate field and time sampling, the use of a reflective journal, using several data collection techniques such as focus groups and surveys to provide a convergence of multiple perspectives (described as triangulation), examination of the analysed data by research participants (described as member checking) or by peers, and ensuring that the reasoning established by the researcher follows established criteria so that there are no unplanned inconsistencies between data and conclusions (described as structural coherence).

Applicability

Applicability in research describes whether the research can be used in a context other than its initial context, which is also described as transferability. Although it has been suggested that qualitative research need not be generalised to other settings as its role is often descriptive, Guba (1981) presented a model that suggests data can be transferred if there is a good fit between the two settings. In Guba’s model, the ability of qualitative research to fit from one context to another reflects sufficient depth in the data. This also requires that the researcher has developed the topic to include sufficient data over time and to have described and developed the data such that their context can be matched with another situation.

Consistency

Consistency is described as applicability of research outcomes if the study were to be conducted with a comparable sample in a similar environment. This implies that data will develop in a similar manner resulting in common outcomes. As qualitative research is focused on observations, the consistency of research findings cannot rely on repeatable experiences. Rather, consistency is reliant on the dependability by which data are collected and the method by which the researcher is informed and develops insight during the research process. The dependability of qualitative research can be strengthened by ensuring full and develops the topic to include sufficient data over time and to have described and developed the data such that their context can be matched with another situation.

Neutrality

Neutrality or freedom from bias relies on the perceptions of the researcher, as well as field notes (which may go missing), observation (which is influenced by external factors) and memory. The potential for bias as a result of the researcher’s preconception has been identified. Participants may be influenced by external factors at the time of the data collection and therefore findings may not be durable. Findings are context-specific

www.pjonline.com

17 March 2007 The Pharmaceutical Journal (Vol 277) 313
and may not be generalisable. Although triangulation is used to provide different perspectives and a broader range of data it is an argument that developed to overcome the shortcomings of a single methodology. Concerns have also been expressed over combining methods that are underpinned by different philosophical assumptions within the framework of a single study.27

Notwithstanding the above, qualitative research may address issues such as “Why do people think like that?” which ultimately may be more relevant than “How many people think like that?”.10

Summary
The reader has been introduced to the concept of qualitative research and its role in pharmacy practice research. Guidelines contributing to conducting quality research have been presented, including the need for an ethical approach to a study. In part 2, “Useful tools for data collection and analysis”, the use of focus groups and face-to-face interviews will be discussed as examples of data collection methods and suggestions on how to analyse data will be presented.

References
4. Launse L. The demands for qualitative research are developing. Journal of Social and Administrative Pharmacy 1991;0:1–6.