### **SPECIAL ARTICLE**

# Qualitative research: its value and applicability

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Correspondence to Steven J. Agius (s.agius@nwpgmd.nhs.uk) First received 15 Jan 2013, accepted 24 Jan 2013 **Summary** Qualitative research has a rich tradition in the study of human social behaviour and cultures. Its general aim is to develop concepts which help us to understand social phenomena in, wherever possible, natural rather than experimental settings, to gain an understanding of the experiences, perceptions and/or behaviours of individuals, and the meanings attached to them. The effective application of qualitative methods to other disciplines, including clinical, health service and education research, has a rapidly expanding and robust evidence base. Qualitative approaches have particular potential in psychiatry research, singularly and in combination with quantitative methods. This article outlines the nature and potential application of qualitative research as well as attempting to counter a number of misconceptions.

Declaration of interest None.

Qualitative research has a rich tradition in the social sciences. Since the late 19th century, researchers interested in studying the social behaviour and cultures of humankind have perceived limitations in trying to explain the phenomena they encounter in purely quantifiable, measurable terms. Anthropology, in its social and cultural forms, was one of the foremost disciplines in developing what would later be termed a qualitative approach, founded as it was on ethnographic studies which sought an understanding of the culture of people from other societies, often hitherto unknown and far removed in geography.<sup>1</sup> Early researchers would spend extended periods of time living in societies, observing, noting and photographing the minutia of daily life, with the most committed often learning the language of peoples they observed, in the hope of gaining greater acceptance by them and a more detailed understanding of the cultural norms at play. All academic disciplines concerned with human and social behaviour, including anthropology, sociology and psychology, now make extensive use of qualitative research methods whose systematic application was first developed by these colonial-era social scientists.

Their methods, involving observation, participation and discussion of the individuals and groups being studied, as well as reading related textual and visual media and artefacts, form the bedrock of all qualitative social scientific inquiry. The general aim of qualitative research is thus to develop concepts which help us to understand social phenomena in, wherever possible, natural rather than experimental settings, to gain an understanding of the experiences, perceptions and/or behaviours of those studied, and the meanings attached to them.<sup>2</sup> Researchers interested in finding out why people behave the way they do; how people are affected by events, how attitudes and opinions are formed; how and why cultures and practices have developed in the way they have, might well consider qualitative methods to answer their questions.

# What questions are best answered using qualitative research?

It is fair to say that clinical and health-related research is still dominated by quantitative methods, of which the randomised controlled trial, focused on hypothesis-testing through experiment controlled by randomisation, is perhaps the quintessential method. Qualitative approaches may seem obscure to the uninitiated when directly compared with the experimental, quantitative methods used in clinical research. There is increasing recognition among researchers in these fields, however, that qualitative methods such as observation, in-depth interviews, focus groups, consensus methods, case studies and the interpretation of texts can be more effective than quantitative approaches in exploring complex phenomena and as such are valuable additions to the methodological armoury available to them.<sup>3</sup>

In considering what kind of research questions are best answered using a qualitative approach, it is important to remember that, first and foremost, unlike quantitative research, inquiry conducted in the qualitative tradition seeks to answer the question 'What?' as opposed to 'How often?'. Qualitative methods are designed to reveal what is going on by describing and interpreting phenomena; they do not attempt to measure how often an event or association occurs. Research conducted using qualitative methods is normally done with an intent to preserve the inherent complexities of human behaviour as opposed to assuming a reductive view of the subject in order to count and measure the occurrence of phenomena. Qualitative research normally takes an inductive approach, moving from observation to hypothesis rather than hypothesis-testing or deduction, although the latter is perfectly possible.

When conducting research in this tradition, the researcher should, if possible, avoid separating the stages of study design, data collection and analysis, but instead weave backwards and forwards between the raw data and the process of conceptualisation, thereby making sense of the data throughout the period of data collection. Although there are inevitable tensions among methodologists concerned with qualitative practice, there is broad consensus that *a priori* categories and concepts reflecting a researcher's own preconceptions should not be imposed on the process of data collection and analysis. The emphasis should be on capturing and interpreting research participants' true perceptions and/or behaviours.

#### Using combined approaches

The polarity between qualitative and quantitative research has been largely assuaged, to the benefit of all disciplines which now recognise the value, and compatibility, of both approaches. Indeed, there can be particular value in using quantitative methods in combination with qualitative methods.4 In the exploratory stages of a research project, qualitative methodology can be used to clarify or refine the research question, to aid conceptualisation and to generate a hypothesis. It can also help to identify the correct variables to be measured, as researchers have been known to measure before they fully understand the underlying issues pertaining to a study and, as a consequence, may not always target the most appropriate factors. Qualitative work can be valuable in the interpretation, qualification or illumination of quantitative research findings. This is particularly helpful when focusing on anomalous results, as they test the main hypothesis formulated. Qualitative methods can also be used in combination with quantitative methods to triangulate findings and support the validation process, for example, where three or more methods are used and the results compared for similarity (e.g. a survey, interviews and a period of observation in situ).

### **Countering some misconceptions**

## 'There is little value in qualitative research findings because we cannot generalise from them'

Generalisability refers to the extent that the account can be applied to other people, times and settings other than those actually studied. A common criticism of qualitative research is that the results of a study are rarely, if ever, generalisable to a larger population because the sample groups are small and the participants are not chosen randomly. Such criticism fails to recognise the distinctiveness of qualitative research where sampling is concerned. In quantitative research, the intent is to secure a large random sample that is representative of the general population, with the purpose of eliminating individual variations, focusing on generalisations and thereby allowing for statistical inference of results that are applicable across an entire population. In qualitative research, generalisability is based on the assumption that it is valuable to begin to understand similar situations or people, rather than being representative of the

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target population. Qualitative research is rarely based on the use of random samples, so the kinds of reference to wider populations made on the basis of surveys cannot be used in qualitative analysis.

Qualitative researchers utilise purposive sampling, whereby research participants are selected deliberately to test a particular theoretical premise. The purpose of sampling here is not to identify a random subgroup of the general population from which statistically significant results can be extrapolated, but rather to identify, in a systematic way, individuals that possess relevant characteristics for the question being considered.<sup>5</sup> The researchers must instead ensure that any reference to people and settings beyond those in the study are justified, which is normally achieved by defining, in detail, the type of settings and people to whom the explanation or theory applies based on the identification of similar settings and people in the study. The intent is to permit a detailed examination of the phenomenon, resulting in a text-rich interpretation that can deepen our understanding and produce a plausible explanation of the phenomenon under study. The results are not intended to be statistically generalisable, although any theory they generate might well be

## 'Qualitative research cannot really claim reliability or validity'

In quantitative research, reliability is the extent to which different observers, or the same observers on different occasions, make the same observations or collect the same data about the same object of study. The changing nature of social phenomena scrutinised by qualitative researchers inevitably makes the possibility of the same kind of reliability problematic in their work. A number of alternative concepts to reliability have been developed by qualitative methodologists, however, known collectively as forms of trustworthiness.<sup>6</sup>

One way to demonstrate trustworthiness is to present detailed evidence in the form of quotations from interviews and field notes, along with thick textual descriptions of episodes, events and settings. To be trustworthy, qualitative analysis should also be auditable, making it possible to retrace the steps leading to a certain interpretation or theory to check that no alternatives were left unexamined and that no researcher biases had any avoidable influence on the results. Usually, this involves the recording of information about who did what with the data and in what order so that the origin of interpretations can be retraced.

In general, within the research traditions of the natural sciences, findings are validated by their repeated replication, and if a second investigator cannot replicate the findings when they repeat the experiment then the original results are questioned. If no one else can replicate the original results then they are rejected as fatally flawed and therefore invalid. Natural scientists have developed a broad spectrum of procedures and study designs to ensure that experiments are dependable and that replication is possible. In the social sciences, particularly when using qualitative research methods, replication is rarely possible given that, when observed or questioned again, respondents will almost never say or do precisely the same things. Whether results have been successfully replicated is always a matter of interpretation. There are, however, procedures that, if followed, can significantly reduce the possibility of producing analyses that are partial or biased.<sup>7</sup>

Triangulation is one way of doing this. It essentially means combining multiple views, approaches or methods in an investigation to obtain a more accurate interpretation of the phenomena, thereby creating an analysis of greater depth and richness. As the process of analysing qualitative data normally involves some form of coding, whereby data are broken down into units of analysis, constant comparison can also be used. Constant comparison involves checking the consistency and accuracy of interpretations and especially the application of codes by constantly comparing one interpretation or code with others both of a similar sort and in other cases and settings. This in effect is a form of interrater reliability, involving multiple researchers or teams in the coding process so that it is possible to compare how they have coded the same passages and where there are areas of agreement and disagreement so that consensus can be reached about a code's definition, improving consistency and rigour. It is also good practice in qualitative analysis to look constantly for outliers - results that are out of line with your main findings or any which directly contradict what your explanations might predict, re-examining the data to try to find a way of explaining the atypical finding to produce a modified and more complex theory and explanation.

### In conclusion

Qualitative research has been established for many decades in the social sciences and encompasses a valuable set of methodological tools for data collection, analysis and interpretation. Their effective application to other disciplines, including clinical, health service and education research, has a rapidly expanding and robust evidence base. The use of qualitative approaches to research in psychiatry has particular potential, singularly and in combination with quantitative methods.<sup>8</sup> When devising research questions in the specialty, careful thought should always be given to the most appropriate methodology, and consideration given to the great depth and richness of empirical evidence which a robust qualitative approach is able to provide.

### About the author

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