Qualitative Research in Health Care

Qualitative Research in Health Care

Fourth Edition

Edited by
Catherine Pope
Professor of Medical Sociology
Nuffield Department of Primary Care Health Sciences
University of Oxford
Oxford, UK

Nicholas Mays
Professor of Health Policy
Department of Health Services Research and Policy
London School of Hygiene and Tropical Medicine
London, UK

WILEY Blackwell

This edition first published 2020
© 2020 by John Wiley & Sons Ltd

Edition History [3e, 2006]

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by law. Advice on how to obtain permission to reuse material from this title is available at http://www.wiley.com/go/permissions.

The right of Catherine Pope and Nicholas Mays to be identified as the authors of this work has been asserted in accordance with law.

Registered Office(s)
John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, USA
John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

Editorial Office
9600 Garsington Road, Oxford, OX4 2DQ, UK

For details of our global editorial offices, customer services, and more information about Wiley products visit us at www.wiley.com.

Wiley also publishes its books in a variety of electronic formats and by print-on-demand. Some content that appears in standard print versions of this book may not be available in other formats.

Limit of Liability/Disclaimer of Warranty
The contents of this work are intended to further general scientific research, understanding, and discussion only and are not intended and should not be relied upon as recommending or promoting scientific method, diagnosis, or treatment by physicians for any particular patient. In view of ongoing research, equipment modifications, changes in governmental regulations, and the constant flow of information relating to the use of medicines, equipment, and devices, the reader is urged to review and evaluate the information provided in the package insert or instructions for each medicine, equipment, or device for, among other things, any changes in the instructions or indication of usage and for added warnings and precautions. While the publisher and authors have used their best efforts in preparing this work, they make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives, written sales materials or promotional statements for this work. The fact that an organization, website, or product is referred to in this work as a citation and/or potential source of further information does not mean that the publisher and authors endorse the information or services the organization, website, or product may provide or recommendations it may make. This work is sold with the understanding that the publisher is not engaged in rendering professional services. The advice and strategies contained herein may not be suitable for your situation. You should consult with a specialist where appropriate. Further, readers should be aware that websites listed in this work may have changed or disappeared between when this work was written and when it is read. Neither the publisher nor authors shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

Library of Congress Cataloging-in-Publication Data

Names: Pope, Catherine, editor. | Mays, Nicholas, editor.
Title: Qualitative research in health care / edited by Catherine Pope, Nuffield Department of Primary Care Health Sciences, University of Oxford, UK, Nicholas Mays, London School of Hygiene and Tropical Medicine, Keppel Street, London, UK.
Description: Fourth edition. | Hoboken : Wiley-Blackwell, 2020. | Includes bibliographical references and index.
Identifiers: LCCN 2019033006 (print) | LCCN 2019033007 (ebook) | ISBN 9781119410836 (paperback) | ISBN 9781119410881 (adobe pdf) | ISBN 9781119410874 (epub)
Subjects: LCSH: Medical care–Research–Methodology. | Qualitative research.
Classification: LCC RA440.85 .Q35 2020 (print) | LCC RA440.85 (ebook) | DDC 610.72/1–dc23
LC record available at https://lccn.loc.gov/2019033006
LC ebook record available at https://lccn.loc.gov/2019033007

Cover Design: Wiley
Cover Image: © Krikkiat/Shutterstock

Set in 9.5/12.5pt STIXTwoText by SPi Global, Pondicherry, India

10 9 8 7 6 5 4 3 2 1

Contents

Preface to the Fourth Edition

We had no idea in 1996 that, more than two decades later, we would be embarking on a fourth edition of this book. When we wrote the original paper [1] which inspired the book, qualitative methods were largely unfamiliar to health professionals and many health care researchers. Indeed, there was indifference and even hostility in some circles to the use of qualitative methods in research on health care. The paper that led to the book had been based on a quirky dramatic conference presentation to the Society for Social Medicine's annual scientific meeting in the form of a Socratic dialogue between a young female qualitative health services researcher and her older, male, medically trained boss. Crudely, the question the dialogue explored was: 'Why don't medics take qualitative research methods seriously?' The intervening years have seen a huge expansion in the use of these methods in health care research and elsewhere. For example, the place of qualitative research is now sufficiently recognised at the highest level in government to merit the commissioning, by the UK Cabinet Office, of a guide for civil servants and researchers on how to assess the quality of qualitative policy evaluations [2].

Following the publication of the initial Socratic dialogue, we were fortunate that Richard Smith, the sympathetic then editor of the *British Medical Journal,* accepted our proposal for a series of papers targeted largely at clinicians, introducing them very succinctly to the main methods used in qualitative research in health care. This series became the first edition. The book has since become international – having been translated into Japanese and Portuguese [3, 4] – and we find that its readership now includes health care professionals working in many different health systems, researchers from diverse disciplinary backgrounds, and policy-makers and research funders from across the globe. This book is also now one of several on the application of qualitative research to health care, but we believe that it remains distinctive as an entry point for those with little or no previous knowledge of qualitative methods.

For the fourth edition, we have updated the existing material, incorporating new examples and references, and added new chapters on topics which we see as increasingly relevant in an introductory text. As well as continuing to introduce the core qualitative methods of interviews and observation, the book includes entirely new chapters covering the analysis of documents and visual artefacts, and of virtual and digital data, which are becoming more widely used in the health research field. Also new to this edition is a chapter on the role of theory in qualitative research, which we have added in response to requests from readers and students anxious to understand the intellectual foundations of qualitative research. Looking back at previous editions of this book, we feel that we avoided or minimised attention to debates about theory and philosophy in a way that suggested they were irrelevant to qualitative research in health care. In this edition, we recognise the importance of theory in qualitative research more explicitly. We view theory as the foundation of what we do, and, like the physical foundations of a building, while the structures may not be immediately visible, they support what we do as researchers. This book also examines the interface between qualitative and quantitative research – in primary 'mixed method' studies and case study research, and in qualitative secondary analysis and evidence synthesis.

Preparing this fourth edition took a lot longer than we had anticipated, in part because as editors we have reached a stage of life characterised by significant caring responsibilities, notably for relatives who need formal health and social care, and informal support. Our interactions with the health and social care services in this period have sharpened our belief that the methods and approaches described in this book are needed to understand health care and health services, and will be essential if we are to improve these. We owe a debt of thanks to all the authors for contributing to this new edition, and to them and our publishers for their patience with the elongated editing process.

As before, this book has been improved by the constructive advice, commentary, and expertise of colleagues and students, readers, and reviewers. Other researchers have made our job easier by opening up and contributing to debates about methodology and research quality, and by simply doing the kinds of qualitative research which we refer to in this book. We are grateful to the team at Wiley: Pri Gibbons and Deirdre Barry in Oxford, and, in particular, our Project Editor, Yoga Mohanakrishnan and Production Editor, Bhavya Boopathi in India.

Catherine Pope and Nicholas Mays, August 2019

References

1 Pope, C. and Mays, N. (1993). Opening the black box: an encounter in the corridors of health services research. *BMJ* **306**: 315–318.

2 Spencer, L., Ritchie, J., Lewis, J., and Dillon, L. (2003). *Quality in Qualitative Evaluation: A Framework for Assessing Research Evidence*. London: Government Chief Social Researcher's Office, Prime Minister's Strategy Unit, Cabinet Office. https://www.gov.uk/government/publications/government-social-research-framework-for-assessing-research-evidence (accessed 15 September 2019).

3 Pope, C. and Mays, N. (2001). *Qualitative Research in Health Care*. Tokyo: Ikakju-Shoin Ltd.

4 Pope, C. and Mays, N. (2005). *Pesquisa qualitative an atenção à saúde* (trans. A.P. Fajardo). Porto Alegra: Artmed.

List of Contributors

Davina Allen
School of Healthcare Sciences
Cardiff University
Cardiff, UK

Rebecca K. Barnes
Centre for Academic
Primary Care
University of Bristol
Bristol, UK

Nicky Britten
College of Medicine and
Health
University of Exeter
Exeter, UK

Alec Fraser
King's Business School
King's College London
London, UK

Dawn Goodwin
Lancaster Medical School
Lancaster University
Lancaster, UK

Martin Gorsky
Centre for History in Public
Health
London School of Hygiene and
Tropical Medicine
London, UK

Lisa Hinton
Nuffield Department of Primary
Care Health Sciences
University of Oxford
Oxford, UK

Bodil J. Landstad
Department of Health Sciences
Mid Sweden University
Sundsvall, Sweden

Geraldine M. Leydon
Faculty of Medicine
University of Southampton
Southampton, UK

Kath Maguire
College of Medicine and Health
University of Exeter
Exeter, UK

Nicholas Mays
Department of Health Services Research and Policy
London School of Hygiene and Tropical Medicine
London, UK

Alex Mold
Centre for History in Public Health
London School of Hygiene and Tropical Medicine
London, UK

Alicia O'Cathain
School of Health and Related Research
University of Sheffield
Sheffield, UK

Catherine Pope
Nuffield Department of Primary Care Health Sciences
University of Oxford
Oxford, UK

John Powell
Nuffield Department of Primary Care Health Sciences
University of Oxford
Oxford, UK

Sara Ryan
Nuffield Department of Primary Care Health Sciences
University of Oxford
Oxford, UK

Jonathan Q. Tritter
School of Languages and Social Sciences
Aston University
Birmingham, UK

Michelle H. van Velthoven
Nuffield Department of Primary Care Health Sciences
University of Oxford
Oxford, UK

Sue Ziebland
Nuffield Department of Primary Care Health Sciences
University of Oxford
Oxford, UK

1

Introduction

Nicholas Mays[1] *and Catherine Pope*[2]

[1] *Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK*
[2] *Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK*

Qualitative research is used in a range of social science disciplines. It encompasses a range of methods for data collection and analysis that are used in both academic and market research, several of which have become familiar in health care and health services research. This book aims to introduce the main qualitative methods that can be used to study health care, and to argue that qualitative research can be employed appropriately and fruitfully to answer complex questions confronting researchers. These questions might include those directed to finding out about patients' experiences of health care and everyday health care practices or evaluating organisational change processes and quality improvement.

1.1 What Is Qualitative Research?

Qualitative research is often defined by reference to quantitative research. It is seen as a way of doing research 'without counting' because it does not set out to quantify or enumerate the social world or phenomena studied. Indeed, the origins of this book lie in a series of articles on non-quantitative methods directed at a medical journal audience. However, defining qualitative research as 'not quantitative' is unhelpful. It risks suggesting

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

that because qualitative research does not seek to measure, it cannot help to explain or understand social phenomena. Whilst it is true that qualitative research generally deals with speech, actions, and texts rather than numbers, this does not mean that it is devoid of measurement or explanatory power. It is worth noting that it is both feasible and legitimate to analyse certain types of qualitative data quantitatively (see Chapter 9 on the analysis of qualitative data). Moreover, qualitative analysis can offer profound and rich insights about aspects of health care and services that prove elusive to quantitative research, as pointed out in a letter to the *British Medical Journal* on the contribution of qualitative health care research:

> Qualitative studies help us understand why promising clinical interventions do not always work in the real world, how patients experience care, and how practitioners think. They also explore and explain the complex relations between the healthcare system and the outside world, such as the socio-political context in which healthcare is regulated, funded, and provided, and the ways in which clinicians and regulators interact with industry. [1]

Qualitative research is variously referred to as an approach or set of approaches, as a practice, or as a paradigm. We describe qualitative research as an interpretative approach to data collection and analysis that is concerned with the meanings people attach to their experiences of the social world and how people make sense of that world. Qualitative research comprises both qualitative methods of data collection *and* qualitative methods of analysis; it gathers words and/or visual, descriptive forms of data and explicates these using text-based, interpretative analytical methods.

Qualitative research tries to interpret social phenomena such as interactions, behaviours, and communications in terms of the meanings people bring to them. If quantitative research asks questions such as ‘how big is X or how many Xs are there?’, qualitative research tackles questions such as ‘what is X, and how do people’s perceptions of X vary in different circumstances, and why?’ In this respect the ‘measurement’ that takes place in qualitative research is often concerned with *taxonomy* or classification rather than enumeration. This interpretive focus means that the researcher frequently has to question common sense and assumptions or taken-for-granted ideas about the social world. Bauman, talking about sociology in general, refers to this as ‘defamiliarising’ and this is exactly what good qualitative research tries to do [2]. Rather than simply accepting the taken-for-granted concepts and explanations used in everyday life, qualitative research asks fundamental and searching questions about the nature of social phenomena. So, for example, instead of counting the number of suicides, which presumes that we already agree on the nature of suicide, the qualitative researcher may well start by asking, ‘what is suicide and how is it defined in this society?’ and go on to show that it is socially ‘constructed’ by the activities of coroners, legal experts, health professionals, and individuals, so that definitions of suicide and its connotations vary considerably between different countries, different cultures and religious groups, and across time [3, 4]. These insights, in turn, have profound implications for any attempt to quantify levels or trends in suicide or to intervene to reduce the number of suicides.

A second distinguishing feature of qualitative research, and one of its key strengths, is that it is particularly suited to studying people in their day-to-day settings rather than in artificial or experimental ones (though, as Chapter 12 shows, qualitative methods can be used fruitfully even as part of experimental studies such as randomised controlled trials). Kirk and Miller define qualitative research as a ‘particular tradition in social science that fundamentally depends on watching people in their own territory, and interacting with them in their own language, on their own terms’ [5]. This is referred to as naturalism – hence the term ‘naturalistic methods’, which is sometimes used to denote the approach used in much, but not all, qualitative research.

Another feature of qualitative research (which some authors emphasise) is that it often employs several different qualitative methods of data collection. Studying people in their own territory can thus entail observing (non-participant observation), joining in (participant observation), and talking to people (interviews, focus groups, and informal chatting). It might also include reading what they have written (documentary analysis) and examining objects, images and artefacts they create or use. Different qualitative methods can be combined to provide deeper insights; for example, a recent doctoral thesis used photographs to explore a health care setting augmented by interviews and focus groups [6]. Another study interrogated a range of different documents and used interviews to understand health policy [7], and elsewhere observation and interviews have been used together to examine the implementation of a major quality improvement initiative [8], and to identify the barriers to innovation in health care organisations [9].

1.2 The Uses of Qualitative Research

As well as combining several qualitative methods in a single study, quantitative and qualitative approaches can be used to complement each other. (This is explored in more detail in Chapter 12.) One simple way this can be achieved is by using qualitative research as the preliminary to quantitative research. This model is likely to be the most familiar to those engaged in health and health services research. For example, qualitative research can be used to classify phenomena, or answer the 'what is X?' question, which necessarily precedes the process of enumeration of Xs. As health care deals with people, and as people are, on the whole, more complex than the subjects of the natural sciences, there is a whole set of such questions about human interaction, and how people interpret interaction, to which health professionals and researchers may need answers before attempting to quantify behaviours or events. At their most basic, qualitative research techniques can be used simply to discover the most comprehensible terms or words in common use to describe an activity which can be included in a subsequent survey questionnaire. An excellent example of this can be found in the preliminary work undertaken for the British national survey of sexual attitudes and lifestyles [10]. In this case, face-to-face interviews were used to uncover popular ambiguities and misunderstandings in the use of a number of terms such as 'vaginal sex', 'oral sex', 'penetrative sex', and 'heterosexual'. This qualitative work had enormous value in informing the development of the subsequent survey questionnaire, and in ensuring the validity of the data obtained, because the language in the questionnaire was clear and could be widely understood. This sense checking and foundational qualitative work is increasingly used in studies of complex health care interventions both to inform the development of the intervention itself and to design the evaluation. An example of qualitative work that contributed to both these aspects is Segar et al.'s careful interview and observational work that informed the development of two telehealth interventions to support patients with long-term conditions [11], and which also contributed to the development of a conceptual framework that underpinned the randomised controlled trials used to evaluate these interventions in the Healthlines study [12].

Qualitative research is not only useful as the prelude to quantitative research. It also has a role to play in 'validating' quantitative research or in providing a different perspective on the same social phenomena studied quantitatively. Sometimes, it can force a major reinterpretation of quantitative data. For example, one anthropological study using qualitative methods uncovered the severe limitations of previous surveys: Stone and Campbell found that cultural traditions and unfamiliarity with questionnaires had led Nepalese villagers to feign ignorance of abortion and family planning services, and to under-report their use of contraception and abortion when responding to surveys [13]. More often, the insights provided by qualitative research help to interpret or understand quantitative data more fully. Thus Bloor's work on the surgical decision-making process built on an epidemiological study of the widespread variation in rates of common surgical procedures [14] (see Box 1.1) and helped to unpack the reasons why these variations occurred [15]. In the Healthlines study described earlier, qualitative research was used to explain the modest effects achieved in the randomised controlled trials of the telehealth interventions [16].

Qualitative methods can also be used independently to uncover social processes, or access areas of social life which are not open or amenable to quantitative research. They are especially valuable for understanding views and opinions. For example, Morgan and Watkin's research on people's cultural beliefs about hypertension has helped to explain why rates of compliance with prescribed medications vary significantly among and between white and Afro-Caribbean patients in South London [17]. Qualitative research can also provide rich detail about life and behaviours inside health care settings, as in Strong's classic observational study showing how American and English hospital clinics were organised [18]. Stand-alone qualitative research has also been useful in examining how data about health and health care are shaped by the social processes that produce them – from waiting lists [19], to death certificates [20], and AIDS case registrations [21]. Qualitative methods are increasingly being used in studies of health service organisation and policy to considerable effect in evaluating organisational reforms and changes to health service provision [22].

Box 1.1 Two Stage Investigation of the Association Between Differences in Geographic Incidence of Operations on the Tonsils and Adenoids and Local Differences in Specialists' Clinical Practices [14]

Epidemiological study – documenting variations

Analysis of 12 months' routine data on referral, acceptance, and operation rates for new patients under 15 years of age in two Scottish regions known to have significantly different 10-year operation rates for tonsils and adenoids.

Found significant differences between similar areas within regions in referral, acceptance, and operation rates that were not explained by disease incidence.

Operation rates were influenced, in order of importance, by:

- differences between specialists in propensity to list for operations
- differences between GPs in propensity to refer
- differences between areas in symptomatic mix of referrals.

Sociological study – explaining how and why variations come about

Observation of assessment routines undertaken in outpatient departments by 6 consultants in each region.

Found considerable variation between specialists in their assessment practices (search procedures and decision rules), which led to differences in disposals, which in turn created local variations in surgical incidence.

'High operators' tended to view a broad spectrum of clinical signs as important and tended to assert the importance of examination findings over the child's history; 'low operators' gave the examination less weight in deciding on disposal and tended to judge a narrower range of clinical features as indicating the need to operate.

1.3 Methods Used in Qualitative Research

We have suggested that qualitative research explores people's subjective understandings of their everyday lives. Although the different social science disciplines use qualitative methods in slightly different ways to accomplish this, broadly speaking, the methods used in qualitative research include observation, interviews, and the analysis of texts, documents, or artefacts. Speech or behaviour can be collected using audio or video tapes, and with the advent of the Web and mobile communication technologies a range of additional digital data capture opportunities have opened up, extending textual analysis to include online conversations and forum threads as well as printed documents. Data collected by each method may be used differently (for example, video- and/or audio-taped material may be used in conversational analysis (see Chapter 10) or as the basis of one of the other distinctive analytical approaches (outlined in Chapter 9)), but there is a common focus on talk and action rather than numbers. On one level, these 'methods' are used every day by human beings to make sense of the world – we watch what is going on, ask questions of each other, and try to comprehend the social world we live in. The key difference between this activity and the qualitative methods employed in social science is that the latter are explicit and systematic. Qualitative research, therefore, involves the application of logical, planned, and thorough methods of collecting data, and careful, thoughtful analysis. As commentators have pointed out, considerable skill is required by the researcher to progress beyond superficial description towards genuine insights into behaviour [23–25]. Perhaps more than some quantitative research techniques, qualitative research studies benefit from experienced researchers. One of the problems arising from the rapid expansion of qualitative methods in the medical and health fields is that the necessary skill and experience are sometimes lacking to undertake high-quality qualitative work.

1.4 The Place of Qualitative Methods in Health Care Research

Over the past few decades, the usefulness and contribution of qualitative research in and for health care has appeared to become increasingly accepted. The *British Medical Journal* series that prompted the first edition of this book was highly cited and has been augmented and expanded with further papers. The range of books detailing the application of these methods to health and social care practice and research has grown, as has the number of published studies. In the UK, the National Institute for Health Research (NIHR) Health Technology Assessment Programme, previously dominated by quantitative and experimental methods, began to encourage qualitative and mixed methods research, as did the International Cochrane Collaboration in relation to systematic reviews. Likewise, the UK Medical Research Council (MRC) guidance for the evaluation of complex interventions, made a strong case for including qualitative methods [26, 27]. In the US, in 2011, the Office of Behavioural and Social Sciences Research of the National Institutes of Health (NIH) published a guide to combining qualitative and quantitative methods for health research [28].

Whilst qualitative research methods have become far more widely accepted in health services research and many areas of medical and nursing research, and are routinely taught to health care professionals, there is still some contention about their value. In 2016, a cross-section of the global health research community, not exclusively qualitative researchers, was moved to publish a defence of qualitative health research [1], rebuking the editors of the *British Medical Journal* for rejecting qualitative research on the grounds that such studies are 'low priority', 'unlikely to be highly cited', 'lacking practical value', or 'not of interest to our readers'. The irony was that a number of the most highly cited papers published by the *British Medical Journal* were, in fact, of qualitative research [29–31]. However, the attitude of the editors was indicative of the remaining dominance of quantitative research, particularly in relation to the evaluation of treatments, programmes, and policies in the health field. In part, this has been reinforced by the emphasis in recent times on evidence-based medicine and evidence-based policy with their focus on the relative effectiveness and cost-effectiveness of interventions of all types.

Undoubtedly, much more qualitative research is being undertaken in the health field than in the recent past, but the divisions between qualitative and quantitative traditions persist. The misleading notion of a fixed, hard-edged divide between qualitative and quantitative research is reinforced by discussion within the social sciences which highlights the distinction between social theories concerned with delineating the role of social structure in determining human behaviour and those concerned with understanding the meanings people attribute to their actions [32]. The crude alignment of qualitative research with 'action' or interpretive approaches and quantitative research with 'structural' or positivist ones has meant that researchers on either side have tended to become locked into adversarial positions, often ignorant of each other's work. We discuss these philosophical differences further in Chapter 2 and suggest that the differences and resulting tensions between qualitative and quantitative research are frequently overstated. There appears to be a growing recognition within sociology, for example, that the qualitative–quantitative distinction may not be helpful or even accurate [33, 34]. In the context of health and health services research, qualitative and quantitative methods are increasingly being used together in a complementary manner in 'mixed method' studies [35] (see Chapter 12 for more on this).

In the period since we published our first joint authored paper on qualitative research in health care [36], the importance of quantitative research has also grown. Whilst some might argue that quantitative methods have been further privileged and entrenched by the rise of evidence-based medicine and evidence-based policy in the 1990s and 2000s, the role of qualitative research in providing a secure evidence base for decision-making is increasingly acknowledged, as this chapter has indicated. As qualitative research has become more mainstream and popular, it has also increasingly been subjected to the same reporting standards and critical appraisal as quantitative research [37–39]. This has been helpful in raising awareness of poor quality qualitative research, and in turn improving the quality of the conduct and reporting of qualitative research. We continue to believe that high quality qualitative research can and must make a contribution to health and health care research.

1.5 Outline of the Structure of the Book

This book is introductory and aims to show how qualitative methods can be employed in health care research. It seeks to provide clear examples of these methods, and to indicate some of the benefits and common pitfalls in their use. It is neither a substitute for seeking the advice of a skilled, experienced researcher, nor is it an exhaustive manual for qualitative research. In addition to the references, which provide a route to more detailed material on each of the topics covered, each chapter ends with a short guide to further reading which it would be well worth perusing before planning a study or going into the field.

The book is loosely structured in five sections, with introductory foundational material on theory and ethics, followed by a group of chapters covering the five main methods of data collection and types of data (interviews, focus groups, observation, documentary analysis, and digital analysis), followed by three chapters focusing on primary and secondary analysis of the resultant data. Each of these chapters draws on classic and contemporary examples of qualitative research. The penultimate section of the book looks in more detail at the application of qualitative research alongside other approaches in mixed method, case study, and participatory styles of research. The book concludes with a reprise of the arguments about 'quality' in qualitative research and how quality may be assessed and assured.

References

1 Greenhalgh, T., Annandale, E., Ashcroft, R. et al. (2016). An open letter to the BMJ editors on qualitative research. *BMJ* **352**: i563.
2 Bauman, Z. (1990). *Thinking Sociologically*. Oxford: Blackwell.
3 Douglas, J. (1967). *The Social Meanings of Suicide*. Princeton, NJ: Princeton University Press.
4 Scourfield, J., Fincham, B., Langer, S., and Shiner, M. (2012). Sociological autopsy: an integrated approach to the study of suicide in men. *Social Science and Medicine* **74** (4): 466–473.
5 Kirk, J. and Miller, M. (1986). *Reliability and Validity in Qualitative Research*, *Qualitative Research Methods Series, No 1*. London: SAGE.
6 Byrne, E. Visual data in qualitative research: The contribution of photography to understanding the mental health hospital environment. PhD thesis. University of the West of England; 2014.
7 Wilson, N., Pope, C., Roberts, L., and Crouch, R. (2014). Governing healthcare: finding meaning in a clinical practice guideline for the management of non-specific low back pain. *Social Science and Medicine* **102**: 138–145.
8 Tarrant, C., O'Donnell, B., Martin, G. et al. (2016). A complex endeavour: an ethnographic study of the implementation of the sepsis six clinical care bundle. *Implementation Science* **11** (1): 149.
9 Ferlie, E., Fitzgerald, L., Hawkins, C., and Wood, M. (2005). The (non) spread of innovations: the mediating role of professionals. *Academy of Management Journal* **48** (1): 117–134.
10 Wellings, K., Field, J., Johnson, A., and Wadsworth, J. (1994). *Sexual Behaviour in Britain: The National Survey of Sexual Attitudes and Lifestyles*. Harmondsworth: Penguin.
11 Segar, J., Rogers, A., Salisbury, C., and Thomas, C. (2013). Roles and identities in transition: boundaries of work and inter-professional

relationships at the interface between telehealth and primary care. *Health and Social Care in the Community* **21** (6): 606–613.

12 Salisbury, C., Thomas, C., O'Cathain, A. et al. (2015). Telehealth in chronic disease: mixed-methods study to develop the TECH conceptual model for intervention design and evaluation. *BMJ Open* **5** (2): e006448.

13 Stone, L. and Campbell, J.G. (1986). The use and misuse of surveys in international development: an experiment from Nepal. *Human Organisation* **43**: 27–37.

14 Bloor, M.J., Venters, G.A., and Samphier, M.L. (1976). Geographical variation in the incidence of operations on the tonsils and adenoids: an epidemiological and sociological investigation. *The Journal of Laryngology and Otology* **92**: 791–801, 883–95.

15 Bloor, M. (1976). Bishop Berkeley and the adenotonsillectomy enigma: an exploration of the social construction of medical disposals. *Sociology* **10**: 43–61.

16 O'Cathain, A., Drabble, S.J., Foster, A. et al. (2016). Being human: a qualitative interview study exploring why a telehealth intervention for management of chronic conditions had a modest effect. *Journal of Medical Internet Research* **18** (6): e163.

17 Morgan, M. and Watkins, C. (1988). Managing hypertension: beliefs and responses to medication among cultural groups. *Sociology of Health and Illness* **10**: 561–578.

18 Strong, P.M. (1976). *The Ceremonial Order of the Clinic*. London: Routledge Kegan Paul.

19 Pope, C. (1991). Trouble in store: some thoughts on the management of waiting lists. *Sociology of Health and Illness* **13**: 191–211.

20 Bloor, M. (1991). A minor office: the variable and socially constructed character of death certification in a Scottish city. *Journal of Health and Social Behavior* **32** (3): 273–287.

21 Bloor, M., Goldberg, D., and Emslie, J. (1991). Ethnostatistics and the AIDS epidemic. *British Journal of Sociology* **42**: 131–137.

22 Turner, S., Ramsay, A., Perry, C. et al. (2016). Lessons for major system change: centralization of stroke services in two metropolitan areas of England. *Journal of Health Services Research and Policy* **21** (3): 156–165.

23 Malterud, K. (1993). Shared understanding of the qualitative research process: guidelines for the medical researcher. *Family Practice* **10**: 201–206.

24 Dingwall, R., Murphy, E., Watson, P. et al. (1998). Catching goldfish: quality in qualitative research. *Journal of Health Services Research and Policy* **3**: 167–172.

25 Pope, C. and Mays, N. (2009). Critical reflections on the rise of qualitative research. *BMJ* **339**: b3425.

26 Craig, P., Dieppe, P., Macintyre, S. et al. (2008). Developing and evaluating complex interventions: the new Medical Research Council guidance. *BMJ* **337**: a1655.

27 Moore, L., Audrey, S., Barker, M. et al. (2015). Process evaluation of complex interventions: Medical Research Council guidance. *BMJ* **350**: h1258.

28 NIH Office of Behavioral and Social Sciences Research. Best Practices for Mixed Methods Research in the Health Sciences. 2. Bethesda: National Institutes of Health; 2018. Available from: https://obssr.od.nih.gov/wp-content/uploads/2018/01/Best-Practices-for-Mixed-Methods-Research-in-the-Health-Sciences-2018-01-25.pdf (accessed 18 July 2019).

29 Gabbay, J. and le May, A. (2004). Evidence based guidelines or collectively constructed "mindlines?" Ethnographic study of knowledge management in primary care. *BMJ* **329**: 1013.

30 Kai, J. (1996). What worries parents when their preschool children are acutely ill, and why: a qualitative study. *BMJ* **313**: 983–986.

31 Hak, T., Koëter, G., and van der Wal, G. (2000). Collusion in doctor-patient communication about imminent death: an ethnographic study. *BMJ* **321**: 1376–1381.

32 Mechanic, D. (1989). Medical sociology: some tensions among theory, method and substance. *Journal of Health and Social Behavior* **30**: 147–160.

33 Hammersley, M. (1992). Deconstructing the qualitative-quantitative divide. In: *Mixing Methods: Qualitative and Quantitative Research* (ed. J. Brannen), 29–55. Aldershot: Avebury.

34 Payne, G., Williams, M., and Chamberlain, S. (2004). Methodological pluralism in British sociology. *Sociology* **38** (1): 153–163.

35 Barbour, R. (1999). The case for combining qualitative and quantitative approaches in health services research. *Journal of Health Services Research and Policy* **4**: 39–43.

36 Pope, C. and Mays, N. (1993). Opening the black box: an encounter in the corridors of health services research. *BMJ* **306**: 315.

37 O'Brien, B.C., Harris, I.B., Beckman, T.J. et al. (2014). Standards for reporting qualitative research: a synthesis of recommendations. *Academic Medicine* **89** (9): 1245–1251.

38 Tong, A., Sainsbury, P., and Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care* **19** (6): 349–357.

39 Kuper, A., Lingard, L., and Levinson, W. (2008). Critically appraising qualitative research. *BMJ* **337**: a1035.

Further Reading

Green, J. and Thorogood, N. (2014). *Qualitative Methods for Health Research*, Introducing Qualitative Methods Series, 3e. London: SAGE Publications Ltd.

2

The Role of Theory in Qualitative Research

Catherine Pope[1] *and Nicholas Mays*[2]

[1] *Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK*
[2] *Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK*

2.1 Introduction

The decision to use a qualitative approach to answer a research question is typically informed by an overarching research strategy or set of decisions about the research design, and choices about the appropriate tools and methods for collecting and analysing data. The formal processes for obtaining research funding and the expectations of research publishers have increasingly made researchers make these elements of their research strategy more explicit in the form of detailed methods sections in funding applications and research papers. However, sometimes, important beliefs and perspectives that also underpin the research strategy, relating to how the social world can be comprehended and studied, and how the validity of knowledge gathered by research might be assessed, are less visible. This chapter discusses these considerations.

These beliefs about, and perspectives on, what we can know about the social world and the nature of any knowledge about the social world are variously labelled as theoretical traditions, research paradigms, or philosophical positions. The ways that these ideas inform and underpin research are sometimes not clear. In part, this is because these world views or orientations towards research are a contested area of debate in the philosophy of science. The ideas, and indeed the terminology used,

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

about theory are sometimes disputed, with the result that the terrain and the seemingly complex jargon associated with it can be off-putting. One response to this situation has been to write about qualitative research as if these underpinning philosophical beliefs do not matter. Indeed, some commentators have gone as far as to argue that these issues are irrelevant, akin to 'candy-floss' [1] (p. 549), and have suggested that qualitative researchers should simply learn the technical methods of data collection, without delving into the territory of the philosophy of science. We argue that some understanding of the main perspectives on the nature of the social world, and of the sort of knowledge that can be obtained through research about the social world, provides a solid foundation for good qualitative research.

2.2 Differences in Ontology and Epistemology

Ontology is concerned with the question: 'What is the nature of the (social) world?' In the social sciences, ontology requires researchers to consider whether the social phenomena they are studying are independent of human thinking and interpretation, or whether such phenomena exist only as a result of a process of construction by researchers. The implication of the latter position is that there will always be multiple, different versions of the social world. Ontology in social research is often presented as a simple binary distinction between philosophical *realism* on the one hand and *idealism* on the other. Realism offers the view that there is an external reality that exists beyond the individual who is attempting to understand it. One form of realism is *materialism*, which contends that there are physical and economic structures existing independently of the individual that constitute and organise the social world, and which place limits on individual agency. By contrast, *idealism* adopts the much more relativist position (sometimes referred to as *anti-realist*) that there is no reality outside our own subjective understanding and sense making. One version of idealism is referred to as *post-modernism,* which argues that there are multiple social worlds, socially and contextually created by multiple individuals' constructions of culture and identity.

In practice, ontological perspectives are more nuanced than this binary division suggests and it is probably more helpful to think of ontology as a continuum extending from an extreme realist position (i.e. the social world is entirely independent of our understanding) to an extreme anti-realist position (i.e. there are infinite, multiple realities created by unique subjective understandings). Most health research operates in intermediate positions along this continuum; qualitative researchers typically accept that there is a social reality existing beyond themselves, but are also aware that understanding this reality is dependent on the construction of a plausible account, using a variety of tools and judgements which are, ultimately, subjective.

The way a researcher conceives of ontology is likely to influence the choice of research design and methods as well as the theoretical orientation of the research, and thus will inform how a piece of research is undertaken. One way to approach ontology is to consider carefully which components of the social world are of prime interest in any specific study. For example, if the focus of a study is likely to be primarily on people and objects, it might be located nearer the realist end of the continuum described above, while a study preoccupied with the analysis of accounts of experiences or feelings might be nearer the idealist end of the spectrum.

Epistemology sits alongside ontology as an important consideration in any research. The way that we understand the social world (as real or ideal or somewhere in between) is connected to this branch of philosophy which is concerned with theories of knowledge – that is, how we can know about the world, and how we can produce valid and trustworthy knowledge about it. A simper way to think about epistemology is as a set of rules determining how we can learn about the social world or phenomena being studied, and what counts as valid evidence about these phenomena. Ontology and epistemology are interdependent, but not all ontologies are compatible with all epistemologies. If researchers conceive of the social world as an entirely independent reality outside their consciousness, then they are unlikely to waste much time trying to elucidate multiple subjective representations constructed by individuals. At the risk of over-generalising, qualitative researchers tend to locate themselves towards the idealist end of the spectrum of ontology and tend to adopt a more subjective approach to epistemology. Our own position is informed by *subtle realism,* a term coined by Hammersley [2]. We accept that there is a world 'out there', that is, an external independent reality (e.g. biological mechanisms, or the social presentation of a disease, or a condition such as a broken femur, or the Human Immunodeficiency

Virus [HIV], or organisations called hospitals). But we also accept that these phenomena can ultimately only be made sense of through our interpretations of them.

2.3 Implications of Ontology and Epistemology

Differences in ontology and epistemology also have implications for how researchers position and present themselves during the process of doing research. At its simplest, the more a researcher is guided by a realist outlook, the more likely she is to present herself and her work as the product of independent, objective analysis in which she looks at the subject of the research from the outside. The more a researcher adopts an idealist position towards the nature of the social world and the knowledge that can be obtained about it, the more likely she is to recognise that research and the researcher cannot be entirely neutral and value-free, and, in particular, that the researcher affects and is affected by the social setting being studied. From this perspective, research is unequivocally the product of the researcher's own ability to make sense of the social world. As a result, such researchers may devote considerable time and effort to reflect on how their background, experience, attitudes, values, and identity have contributed to shaping the conclusions of their research. This is discussed in more detail in Chapter 15 where we explore the concept of 'reflexivity'.

Furthermore, ontology and epistemology have implications for the general process of reasoning adopted by the researcher. There are two main forms of scientific reasoning:

- *inductive:* in which interpretations and understanding of phenomena are derived solely from direct observations, looking for patterns that can be used to generate theory or explanation;
- *deductive:* which begins with a theory or hypothesis and proceeds to design a study specifically to confirm or disprove that theory or hypothesis, thereby strengthening (or discarding) the prior theory. Doctors and other health care practitioners may recognise this form of reasoning as it resembles the process of differential diagnosis – a procedure used to consider and progressively eliminate possible diagnoses using a variety of information sources and tests.

In contemporary health research, it is hard to imagine undertaking a study in an entirely inductive way since the researcher is likely to have drawn on knowledge of previous research in the field to develop a research question and to guide the research design. Funding bodies increasingly demand that research proposals include a thorough literature review, and this means that researchers will be familiar with existing theory and evidence. On the other hand, qualitative researchers tend not to use the kinds of experimental research designs most often associated with deductive theory testing. *Abductive* logic [3, 4] is a term used to describe a middle position that uses both deductive and inductive reasoning. For example, qualitative data analysis may start with a highly inductive approach, but then proceed by testing theories and explanations from the researchers and/or the research participants themselves or from the wider literature. At other times, qualitative data analysis may start strongly focused on a set of given research questions and topics, particularly if the study has been commissioned to answer a policy or practice question, but leave space for more inductive identification of themes and issues not predicted at the outset (see Chapter 9 for more on qualitative data analysis). Sometimes data collection and/or analysis can be directly informed by a priori explanations or hypotheses. For example, the Theory of Planned Behaviour (TPB) was used in a study of nurses' hand hygiene practices by White et al. [5]. TPB is a well-established theory that proposes that behaviour is determined by intentions that are influenced by people's attitudes, norms, and perceived control over themselves and their environment. White and colleagues used this as a framework for thematic analysis of data from focus groups with nurses, to identify that doctors' dismissal of hygiene rules acted as a strong barrier to hand-washing among nursing staff, but that reminders from patients, colleagues, or even signs and posters, could combat these attitudes and norms.

2.4 Choose Your Philosophical Umbrella – Positivism or Interpretivism?

The different ontological and epistemological positions outlined above tend to be associated with different broad approaches to, and styles of, research. These approaches and styles of research are known as *paradigms* – a term coined by Kuhn [6] to describe a framework consisting of concepts, theories, research methods, and standards for what constitutes a legitimate contribution to a distinct scientific field. The natural sciences, and much quantitative research, are typically aligned with a *positivist* paradigm. A positivist research approach sees the goal of science and research as being to describe reality and holds that all 'mature' sciences share the same scientific methods, which seek to establish cause and effect and generate general laws capable of prediction. Drawing on our discussion thus far, we can define positivism as having a realist ontology (positivism assumes that there is a stable reality independent of what we think about it) and an empiricist epistemology (we can know and understand phenomena by observing them). In addition, positivism claims that research should be objective and that the 'scientific method' requires adopting a rational, unbiased, or value-free approach. While positivism may serve adequately as a basis for studying chemical reactions or laboratory rats, it can be more problematic for studying human beings; unlike the objects of study in other 'sciences', human research participants are capable of reflection and are self-aware. They have views, which they can tell us about, and they can change their behaviour and opinions 'at will'.

Most qualitative research is associated with an alternative *interpretivist* paradigm. This argues that we need to understand people's interpretations of the world, and that research should attempt to understand the meaning and significance of the world from the perspective of those who live in it. Interpretivism informs a number of different academic disciplines including different branches of sociology and anthropology. Again using our delineation of ontology and epistemology, we can argue that interpretivism has a relativist ontology (i.e. interpretivism assumes that reality and social meanings are constructed subjectively) and a subjectivist epistemology (i.e. the assumption is that the researcher is inherently part of the object of investigation and that it is important to understand phenomena from the viewpoint of those being studied). Unlike positivists, interpretivists recognise that research cannot be value free. Instead, the researcher is encouraged to reflect on, and be as transparent as possible about, their subjective understandings and possible biases. In this way, interpretivism draws on hermeneutics, a branch of philosophy concerned with the theory and practice of interpretation, (associated with philosophers such as Heidegger [7] and Gadamer [8]). It argues that we cannot be independent and neutral as researchers. Our perspectives are an essential part of our interpretation. Interpretivist approaches tend to use naturalistic, non-experimental methods, designed to access the understandings that people have about their own and others' actions, and the meanings they attribute to these.

Having considered the broad philosophical foundations of research, encompassing how we understand the social world and how we can know about that world, we now discuss the role of theory in qualitative research.

2.5 Theoretical Perspectives

For many social scientists, as well as being located within a particular paradigm, their choices about research methods are inextricably linked to a *theoretical perspective* that shapes and informs how they think about their research. A theory is simply a system of ideas or concepts intended to explain something. Newton's theory or law of gravitation, for example, describes gravity as a force which causes any two bodies to be attracted to each other, and we can use it to explain how an object falls towards the earth. The TPB, mentioned earlier in this chapter, explains how behaviour is shaped by beliefs. Theories help understand, explain, or predict, and all research is dependent on theory, even if this is sometimes not acknowledged.

Theory can be divided into three levels:

- Macro-level: is focused on large-scale processes and frames high-level research questions about the way the world is, and how people and things behave. Examples of macro-level theories include the 'Big Bang theory' in physics and astronomy, or Marxism in social and political science.
- Middle range: links empirical research with theoretical concepts to generate hypotheses/questions. The TPB does this, for example, explaining that a person's intention to stop smoking (a behaviour) is a function of their attitudes (positive or negative) towards that behaviour, subjective norms (what they think others think about it), and their perception of control (how easy they think it is to quit).
- Micro-level: this focuses on small groups and individuals, rather than large structures and systems, and explains how people make sense of everyday interactions. A good example of a micro-level theory is Goffman's

theory of social stigma [9], which argues that some attributes or behaviours are socially discrediting and cause the individual who is stigmatised to be labelled and treated as abnormal or undesirable.

Positivist approaches to research are typically predicated on deductive testing of hypotheses or proposed explanations. In the context of experimental quantitative research designs, such as the randomised controlled trial, an anticipated association between variables is specified, or expressed as a null hypothesis (the expectation that there is no association), so that statistical tests can be performed [10]. Qualitative research does not strive for statistical generalisation and so qualitative research designs may not set out to test a particular hypothesis or theory in the same way. Instead, theory is more likely to be used to inform decisions about data collection (for example, sampling particular groups that are expected on theoretical grounds to behave differently, e.g. men and women). Theory may also provide explanations for findings. This can be emergent and inductive as in Grounded Theory (an approach to developing explanation from data, see Chapter 9), but may also draw on existing theory such that the interpretations offered are theoretically informed. A good example of a study that combines both emergent theorising and a priori theorising is Adams et al.'s [11] study of the experiences of people with asthma. This study both applied and developed micro-level theory. It showed that people with asthma fell into distinct groups of 'accepters' and 'deniers' and argued that this influenced their responses to treatment. This work, as well as offering explanations inductively developed from the data, drew on existing theories of stigma, identity, and the experience of illness, thereby contributing to these theories.

As well as drawing on theories about specific phenomena such as chronic illness or organisations, qualitative health research often makes use of higher-level social science theories, notably phenomenology, interactionism, constructionism, ethnomethodology, or critical theory. In addition, ethnography, which is often used as a term to describe a set of methods, is (confusingly) also used to describe an overarching theoretical approach that can be used to guide a qualitative piece of health research. Below, we outline each of these key theoretical perspectives.

- *Phenomenology* is associated with the philosopher, Husserl, and explores how individuals make sense of the world in terms of the meanings they create and use about that world. Typically, phenomenologists use interviews to elicit people's subjective 'lived' experiences.

Interpretive Phenomenological Analysis (IPA) is a variant of this approach, often used in qualitative psychology, to examine experiences and to explore how an individual or a small group comprehend these (see Chapter 9) [12].

- *Interactionism* [13], as the name suggests, seeks to understand interactions, encounters, and exchanges between people and groups, and often places particular emphasis on examining the symbols, especially the language people use in encounters. *Symbolic interactionism* explains how people create and change meanings through their social interactions and relationships with each other, and, therefore, uses qualitative observation as well as interviews to collect data.
- *Constructionism* takes the relativist position that 'reality' is socially constructed and focuses attention on research questions about how this 'construction' happens, and who makes and sustains particular versions of reality. This theoretical approach often uses open-ended interviews, sometimes doing multiple interviews with the same people to uncover these versions of reality and their making. Documentary analysis may also be used to show how 'accounts' of phenomena are 'produced' and sustained. *Social constructivism* is a variant of this perspective [14], particularly associated with education research, that is especially concerned with how knowledge is constructed by learners and is thus often used in health promotion research and studies of health professional education.
- *Ethnomethodology* examines the methods and practices people use to construct the common-sense understandings that allow them to navigate the social world. Early work informed by this theoretical perspective focused on conversations and led to the development of conversational analysis (CA), a method for analysing verbal and non-verbal interactions (see Chapter 10). Ethnomethodologically-informed research, and CA in particular, places emphasis on naturally occurring talk and practices and thus may use unobtrusive recording of conversations and/or observation to collect data.
- *Ethnography* is, in essence, the study of people and culture. Like anthropology, which it is derived from, it relies heavily on direct observation of groups and settings to understand how people see their social world, but may also involve a range of other data collection methods. A key feature of this theoretical perspective is the aim to explore the whole culture found in a particular location or associated with a particular group (see Chapter 6 for more on ethnography).

- *Critical theory* is a term that encompasses a range of standpoints, some oppositional to each other, but often associated with ideas drawn from Marxism, feminism, and the Frankfurt School [15]. This collection of theoretical perspectives places emphasis on explaining how power operates in society, and often seeks to inform or effect transformation and social change. As such, researchers informed by critical theory may be interested in how knowledge is constructed to include and exclude different groups, and how hierarchies and oppressive relationships are created and maintained. Researchers adopting a critical theoretic stance also often argue that research should be used to liberate or emancipate people and thus they may favour participatory or action research designs that cede control to, or encourage greater input from, research participants (see Chapter 14 for more on this).

The connection between research and these different theoretical perspectives may be implicit for many researchers, but, increasingly, there is an expectation that health researchers will attempt to articulate the theories that have influenced the choices they make about research design and method. These choices are, of course, also informed by the research question, and by pragmatic or technical considerations. This may be particularly the case in health services research because of its applied nature: research here tends to be geared towards specific practical problems or issues and this, rather than theoretical leanings, may determine the approach taken.

2.6 Methodology

Alongside deeper assumptions about the nature of social reality (ontology) and how we can know that reality (epistemology), theory informs research methodology. Methodology is the rationale, or rules and procedures, for doing and evaluating research. Strictly, it should be distinguished from 'methods', which are the particular techniques, or means of collecting and analysing data. Methodology is the justification for approaching research in a particular way.

Grounded Theory, because of its name, is sometimes misunderstood as a theoretical perspective, but it is probably best considered as a methodology directed to the development of theoretical explanations. It uses inductive and deductive reasoning during data gathering and analysis, although the inductive form is dominant; as the name implies, theories are generated from 'the ground' (i.e. the data). While Grounded Theory is often associated with constructivism [16], Glaser, one of its developers, maintains that it transcends positivism and interpretivism [17], illustrating that these issues of philosophy and methodology are intertwined and, often, controversial. Researchers may need to understand debates and points of contention about methodology, but equally should not be paralysed or overwhelmed to the extent that they cannot proceed with their research. For researchers starting out in qualitative research, this chapter highlights some key issues worth thinking about, and we would encourage deeper consideration of the methodological foundations of their chosen research approach.

Depending on the audience for a piece of research, there may be an expectation that discussion of methodology will include details of the philosophical underpinnings of the research and the theoretical perspective adopted. Sometimes, the overarching paradigm will be implicit, as in most randomised controlled trials which seldom profess a positivist approach, but which, nonetheless, are typically highly realist and empiricist, and are directed to theory testing using quantitative methods. While qualitative research may be less interested in testing theory in this way, it should seek to move beyond simply describing the social world and, ideally, should offer some form of explanation. We have suggested here that qualitative research designs can be informed by theory, and that the perspectives outlined above guide data collection and analysis. Beyond this, the findings and interpretations of original qualitative research can, and should, be brought into dialogue with existing theories to make their own theoretical contribution, be it by adding to micro-level conceptualisations of illness experience, or augmenting middle-range theories about health behaviours or processes.

References

1 Mann, M. (1981). Socio-Logic. *Sociology* **15** (4): 544–550.
2 Hammersley, M. (1991). *What's Wrong with Ethnography?* London: Routledge.
3 Blaikie, N. (2007). *Approaches to Social Enquiry*. Cambridge: Polity.

4 Timmermans, S. and Tavory, I. (2012). Theory construction in qualitative research: from grounded theory to abductive analysis. *Sociological Theory* **30**: 167–186.

5 White, K., Jimmieson, N., Obst, P. et al. (2015). Using a theory of planned behaviour framework to explore hand hygiene beliefs at the '5 critical moments' among Australian hospital-based nurses. *BMC Health Services Research* **15**: 59.

6 Kuhn, T. (1962). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.

7 Heidegger, M. (1962). *Being and Time*. New York: Harper.

8 Gadamer, H. (1976). *Philosophical Hermeneutics*. Berkeley: University of California Press.

9 Goffman, E. (1963). *Stigma; Notes on the Management of Spoiled Identity*. Englewood Cliffs, NJ: Prentice-Hall.

10 Kendall, J.M. (2003). Designing a research project: randomised controlled trials and their principles. *Emergency Medicine Journal* **20**: 164–168.

11 Adams, S., Pill, R., and Jones, A. (1997). Medication, chronic illness and identity: the perspective of people with asthma. *Social Science and Medicine* **45**: 189–201.

12 Smith, J., Flowers, P., and Larkin, M. (2009). *Interpretative Phenomenological Analysis: Theory Method and Research*. London: SAGE.

13 Mann, K. and MacLeod, A. (2015). Constructivism: learning theories and approaches to research. In: *Researching Medical Education* (eds. J. Cleland and S. Durning), 49–66. Oxford: Wiley.

14 Atkinson, P. and Housley, W. (2003). *BSA New Horizons in Sociology: Interactionism*. London: SAGE.

15 Bronner, S. (2017). *Critical Theory – A Very Short Introduction*, 2e. Oxford: Oxford University Press.

16 Charmaz, K. (2006). *Constructing Grounded Theory*. London: SAGE.

17 Glaser, B. (1998). *Doing Grounded Theory: Issues and Discussions*. Mill Valley, CA: Sociology Press.

Further Reading

Cresswell, W. (2012). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. London: SAGE.

3

Ethical Issues in Qualitative Research

Dawn Goodwin[1], Nicholas Mays[2], and Catherine Pope[3]

[1] Lancaster Medical School, Lancaster University, Lancaster, UK
[2] Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK
[3] Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

3.1 Introduction

As we noted in Chapter 2 on the role of theory, our beliefs and views about the social world influence our research. We suggested that, particularly if the researcher adopts a more idealist position towards research, she is likely to accept that research is not value-free, and to recognise her own role affecting, and being affected by, the research process. This chapter develops these ideas by exploring ethics in qualitative research. Like so many areas of research, the issues we present are debated and sometimes contested. Moreover, ethical practices evolve such that research processes that were considered acceptable in past decades are seen as unacceptable now.

Ethical practice in research, qualitative or quantitative, is highly dependent on the researcher. Like ensuring rigour and quality in research (see Chapter 15), ethical practice requires reflexivity, and an ability to consider and reach a decision on 'the right thing to do' – as well as knowing how to do it. For the novice health researcher, ethics in research can seem daunting, not least because of the legislative and regulatory frameworks that govern health-related research. This chapter provides an overview of some of these governance processes, but, given that they are

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

subject to change and vary in different countries, we do not attempt to provide specific guidance on how to navigate the research ethical review process. Instead, we outline the broad ethical principles that underpin good research and the aspects of ethical practice that qualitative researchers are especially likely to need to consider when designing, conducting, and disseminating their research. We have structured this chapter in three sections that reflect ways of thinking about research ethics, beginning with some overarching philosophical *principles,* before moving on to discuss *situational* and *relational* aspects of ethical research practice.

3.2 Ethical Principles

Four principles for ethical practice in health care were delineated by Beauchamp and Childress in 1979 [1] and are frequently applied to the conduct of research as well as the practice of health care. These are:

1) *autonomy* – i.e. allowing patients or participants to make their own decisions;
2) *beneficence* – i.e. seeking to do good;
3) *non-maleficence* – i.e. doing no harm;
4) *justice* – i.e. acting in ways that are fair and equitable.

These philosophical concepts are sometimes seen as universals; that is, ideas that are shared and permanent. However, whilst they provide high-level principles that might be useful when thinking about treating an individual patient, their application to research is a little more contested. As Green and Thorogood [2] point out, 'they may be less useful as guides to decision-making in complex heath research settings, when the "good" for future patients may have to be measured against the autonomy of current participants' (p. 53). Thus, these principles should be thought of as values that inform ethical conduct in research, whilst, in practice, researchers may need to make trade-offs between these ideals when pursuing their research aims. Researchers may find that they have to consider a more utilitarian position, thinking about the consequences of their research in terms of achieving the greatest good for the greatest number, rather than strictly adhering to all four principles.

Ethical principles underpin the legal frameworks and regulations that govern research. These vary in different countries and are adapted over time. National and international legislation regarding human rights, safety, protection of vulnerable people, confidentiality and data protection will affect how research is conducted. Different organisations also have their own research governance and ethical review processes nested within these wider legal frameworks. These legislative and regulatory processes have their origins in the Nuremberg Code, developed from the prosecution of doctors who had conducted inhumane medical procedures on humans during World War II. The Code, whilst not a legal document, sets out 10 key requirements for medical research, including voluntary participation and informed consent, and states that the benefits of research must outweigh the risks to participants. In 1964, the World Medical Association issued the Declaration of Helsinki, reinforcing these requirements and adding that independent committees should review and oversee medical research involving human participants. In academic and health care settings, these committees are known as Institutional Review Boards (IRBs), or Research Ethics Committees (RECs), and they typically govern health-related research and increasingly all forms of social research. Whilst their exact processes vary, these Boards and Committees will typically assess the research protocol that details the background and rationale for the project, its aims, objectives, design, methods, and management plans. They will often also monitor research progress and may require details of project recruitment and require regular reports. Alongside these formal committees, many professional bodies, such as the British Sociological Association [3] and the Social Research Association [4] in the United Kingdom, have developed ethical guidelines, which, although voluntary, serve as useful guidance for best ethical practice.

Formal codes of ethics, and practice guidelines developed by professional bodies and institutions, highlight three core concerns that researchers working with human subjects should attend to, namely: informed consent, confidentiality, and anonymity. This chapter outlines how these apply to qualitative research. However, it is noteworthy that the rise in online research that either uses digital and remote methods to collect data, or analyses digital data, for example, generated by people's use of social media, highlights these issues in new ways. Chapter 8 considers the ethics of digital research in more detail, but it is worth reading each of the sections below with these newer research methods and environments in mind.

3.2.1 Informed Consent

Informed consent addresses the Nuremberg and Helsinki requirements that research participation should be voluntary and that participants should have a full understanding of what being involved in research will entail. However, this does not mean that informed consent is always straightforward, particularly in qualitative research. Elsewhere in this book, we have indicated that qualitative research is often emergent and flexible, which can make it difficult for researchers to specify in advance exactly which data will be collected and how they will be used [5, 6]. During interviews, for example, all the potential uses of the data may not always be clear, as unexpected themes can arise during the analysis [7]. In observational data collection in naturally occurring settings, the researcher often cannot control who enters the research field and when. As Dingwall recognises, ‘so many people are encountered casually that it is impractical to obtain consent on each and every occasion without causing total disruption’ [8] (p. 878). In some situations, there will be no opportunity for introductions, and other participants may not remember to explain the presence of a researcher [6]. This can be addressed by being as overt as possible whilst recording data. For example, one of us observed the work of ambulance crews and was able to wear a uniform that designated her as an ‘observer’, and this proved helpful in signalling her separate status. However, as Hammersley and Atkinson acknowledge, ‘even when operating in an overt manner, ethnographers rarely tell *all* the people they are studying *everything* about the research’ [9] (p. 265) (original italics). This may be because the research design deliberately lacks specificity, or because it is not appropriate or possible to interrupt the working routines of the research setting, but it may also be because the researcher does not want to affect participants’ behaviour by explaining exactly what will be studied. Further, to minimise disruption and remain on good terms with the participant, the researcher may withhold her own opinions or agree with the participant’s views [8, 9].

In the past, some qualitative researchers have conducted covert research in health care settings; for example, the now classic studies by Rosenhan [10] and Goffman [11] of psychiatric hospitals where only a senior manager knew that research was taking place. The application of ethical codes from clinical research to social research, and greater attention to the importance of informed consent, mean that covert health-related research is very unlikely to be permitted on ethical grounds today. However, as we have already noted, there may still be some limited situations where the researcher is not entirely explicit about all her research questions, or where the originally approved design is adapted to incorporate new areas of interest as topics emerge during the research process (ethics committees can be informed of these changes by submitting amendments to the initially approved protocol). In addition, some research may include simulated encounters in order to explore the behaviour of interest, and where the potential harms to participants are judged sufficiently inconsequential to justify the deception. For example, simulated patients (sometimes referred to as 'mystery shoppers') have been used extensively in quantitative and qualitative pharmacy practice research, in particular, to assess whether community pharmacists are providing appropriate advice to patients on self-care and medication. It is not surprising that there has been some controversy about this method, but it is apparent that the approach can provide a unique and robust way to study the quality of professional–patient encounters [12].

By now, it should be clear that obtaining informed consent in qualitative research cannot be accomplished merely by the mechanistic production of a consent form signed at the outset of the episode of data collection. It demands continuous negotiation of the terms of agreement as the study evolves [5, 7]. The salient point is that obtaining informed consent in qualitative research is not a once and for always action. It may be that for participants whose role in the research is fleeting and transitory, a single brief and honest introduction, outlining the research questions, the data collection strategy, and the overall objectives of the research, is sufficient. On the other hand, for those participants whose engagement in the study is prolonged, or who have contributed significantly towards the study's progress, repeated discussions, presentations, and progress reports may be necessary both to inform participants adequately and to secure their continued interest in the success of the study.

3.2.2 Confidentiality

It has been argued that the assurance of confidentiality is the major safeguard against the invasion of privacy through research [13]. However, as Richards and Schwartz [7] point out, the term 'confidentiality' has different meanings for health care practitioners and researchers. For health care practitioners, confidentiality requires that no personal information is passed to those not involved in the care of the patient except in exceptional circumstances, but for researchers, 'the duty of confidentiality is less clear' [7] (p. 138). There is also a danger in conflating confidentiality and anonymity. To keep something confidential is to keep it private. Thus, whilst the use of pseudonyms may protect the identity of participants, it does not necessarily mean that what they say will be kept private. It is essential that the researcher is clear at the outset as to what confidentiality means in the context of the particular study. This means explaining the kinds of output that might be expected from the study. It may help to clarify the limits to confidentiality; for example, the researcher may be able to confirm that remarks made by a nurse are not reported to his/her colleague or manager who is also a respondent, but she cannot guarantee that (suitably anonymised) verbatim quotes will not appear in a final report. In focus groups, the informed consent process will often include asking the group to agree subsequent confidentiality of what is said and anonymity of those who took part to protect all members of the group (see Chapter 5). Many researchers provide opportunities for participants to see, and often, to approve, the data at different stages – for example, by allowing them to see transcripts and/or excerpts destined to be used in final reports. This can help to avoid surprise and discontent when 'confidential' comments find their way into research publications, particularly those made by respondents who are unfamiliar with qualitative research.

One frequent difficulty encountered in qualitative research is that, even when the researcher is openly recording data, such as in interviews, participants may still choose to confide in the researcher, prefacing their disclosure with remarks such as, 'just between ourselves', or they may request the researcher to 'switch the tape recorder off' before they continue. Evidently, the participant wants the researcher to be informed, but for that information to remain private. Burgess' approach to these situations was that although the information could not be used directly, such 'data' could legitimately be used to inform the researcher's understanding of other similar situations that could be quoted [6]. A similar problem arises in observational and documentary research, where the researcher may have access to documents marked 'confidential'. Once again, whilst these documents may inform the overall analysis, they cannot be directly referenced or referred to.

More ambiguous still are those occasions when the researcher is less obviously 'on duty'. For example, during an observational study of health care work, there may be opportunities to interact with practitioners in less formal settings during meal breaks or social occasions. Incidental conversations may be seen by the participants as the lubrication between research events rather than as part of the research itself. How to handle information garnered in this way is a frequent concern in ethnographic research [9]. Dingwall [8] recalls the difficulties encountered when participants realised that data collection entailed recording informal 'backstage' events as well as their behaviour in more formal settings. Participants found it difficult to link events and behaviour in the informal sphere with the announced theme of the research. For Dingwall, the issue was 'the morality of using unguarded statements and ... the potential for exploitative relationships' [8] (p. 882). These tensions are particularly acute in observational research as participants may forget that research is taking place once the researcher becomes familiar in the setting. Ethnographers may exacerbate this tension by actively building rapport with participants, in an attempt to minimise reactivity [9] (sometimes known as the Hawthorne effect). This clearly limits confidentiality in the sense of maintaining privacy. In building rapport, the researcher may be seen as an ally when engaged in examining the workings of the profession or community, but 'allies are expected to keep secrets and respect proprietary boundaries between public and private', [14] (p. 322) whereas researchers may want to expose these very secrets and boundaries.

Box 3.1 describes a situation where confidentiality was problematic, despite the researcher openly making fieldnotes. This incident prompted

Box 3.1 Privacy and Consent [17]

During observation, the researcher, a former anaesthetic nurse, is openly taking fieldnotes in the operating theatre, watching the anaesthetist at work. Another anaesthetist arrives and the two anaesthetists conduct a conversation which they term 'confidential' in the researcher's presence. The conversation concerns another member of the anaesthetic team who is not present. The questions raised by this episode include: Should a 'confidential conversation' be kept private or noted as additional data? Would conveying the content of the conversation to the other researchers breach confidentiality? What were the risks that dissemination of this conversation might harm the individuals involved? Was the researcher being trusted by the participants (her ex-colleagues) to use her discretion and draw a line between public and private?

In the event, the researcher decided not to write notes about the content of the conversation but to record in fieldnotes the questions raised by this event. The situation (but not the content of the conversation) were subsequently discussed by the research team and it was agreed that the conversation should be kept private.

deliberations on where to draw the boundaries of confidentiality. These types of decisions are common in qualitative research, and are not only faced at the beginning of research projects but throughout. They are examples of the ‘everyday dilemmas’ [15] researchers face. When addressing confidentiality in qualitative research, the researcher may need to consider differentiating between types of data – those which can be published, those which are circulated between co-researchers and, occasionally, the data which should be kept in a personal journal.

3.2.3 Anonymity

At the beginning of a research project, changing the names of participants and obscuring the location of the research may seem a straightforward means of protecting the identity of research participants. However, in qualitative research, the level of detail necessary to support and situate research claims, the use of a single or small number of settings and the relatively small number of participants involved, frequently complicate simple anonymisation. Punch has argued that since many institutions and public figures are almost impossible to disguise, their cooperation in research may incur a certain measure of exposure. In such circumstances, ensuring that portions of the data remain confidential may be important to participants and influence their willingness to take part (see Section 3.2.2 above). The tendency of researchers to choose research locations close to their academic institution can also undermine the use of pseudonyms for organisations and individuals [13]. For example, the study of the hospital near the researcher’s workplace, or the participation of a group of specialist practitioners, may be easily deduced by an inquisitive reader of a report or paper.

Richards and Schwartz [7] argue that problems of anonymity permeate every level of research. Interview transcripts contain multiple clues to a person’s identity such as their name, employment details, place of residence, events that have occurred in their communities, and even the turns of phrase they use. In health care, particularly, it may be useful to have ‘insiders’ as co-researchers as they can ease problems of access, understand the terminology used and help explain practices observed. Here, assurances of anonymity may alleviate potential uneasiness at being ‘spied’ [6] upon. However, when the researcher is so familiar with the environment, a simple change of name is usually insufficient to obscure the participant’s identity. In some cases, so many details would have to be changed as to make the data senseless. Richards and Schwartz point out that participants may even be known to the person carrying out the transcription, and this is worth considering if using a local transcription service or staff for this task. Even after anonymisation, quotations, speech mannerisms, and remarks about the context may provide enough information to identify participants, and it is not always easy for the researcher to predict which data could lead to identification [7]. Furthermore, when the research necessarily features the circumstances and events that have given meaning to an individual's life, and that make it different from other lives (for example, in life history and narrative accounts), identities are not so easily concealed by pseudonyms. All these factors make it difficult to preserve anonymity and have led some [16] to question whether ethical expectations of complete anonymity and confidentiality are appropriate or even feasible for all forms of research.

So, before making commitments of anonymity to research participants, there needs to be some consideration of the level of anonymity that can be achieved. This means asking questions about the research design such as: What are the practical, ethical, and interpretive pros and cons of disguising the research location? If it is to be disguised, how can this be adequately achieved? Is it sufficiently 'typical' for a pseudonym to be effective, or should the research design be adapted to include more than one location? Even a short period of comparative data collection at an additional site may help to mask the locations being described, as well as the identity of the individuals who generated the data. When it comes to the participants, it may be necessary to consider whether anonymity during the data collection and analysis is needed, and whether this is feasible given that a pseudonym is often insufficient. It may be possible to negotiate disclosure of information and identities with those involved in the research, but sometimes hard decisions need to be made about what not to report if doing so would compromise the anonymity of participants in ways which could be harmful to them.

3.3 Situational Ethics

This section explores ethics associated with doing research. Although the requirements of research ethical review processes described earlier in the chapter can help the researcher avoid many ethical issues in advance, ethical questions and dilemmas can arise during the conduct of a project. Ethical research practice is an unfolding process that requires ongoing thought and attention, not something that is fully accomplished by successful passage through the formal process of ethical review, important as this may be. The ‘emergent’ nature of qualitative studies and methods of data collection (notably, observations and less structured forms of interview) mean that ethical issues can arise during data collection, analysis, and presentation of findings. For example, research participants may infringe the boundaries of the process of data collection, particularly if good rapport and trust has been established between the researcher and the participants. In an observational study, a participant might have a conversation with a researcher during a break period or whilst walking to a meeting, offering insight or a new perspective on the data. In such circumstances, the researcher would need to consider matters such as what the research participant had already formally consented to; whether the information gleaned should be used in the study (e.g. considering the importance of the information); whether it should be documented and, if so, whether these notes should be used differently from data collected in the agreed settings of the study. Similarly, during an interview a respondent may disclose confidential information about other people, some of whom could be study participants and others not. It may be helpful to discuss these kinds of situation with a colleague or another research team member in order to resolve these ethical dilemmas. One of us (Goodwin) encountered just such a dilemma, described in Box 3.1, and we have written about how these issues were situationally managed [17]. The nature of qualitative data collection methods mean that it may not be possible always to follow all the philosophical principles outlined in formal codes of ethical practice all of the time. Hammersley and Atkinson remark that ‘values often conflict, and their implications for what is legitimate and illegitimate in particular situations is, potentially at least, always a matter for reasonable dispute’ [9] (p. 280).

A different type of ethical issue can arise later in the research process related to the presentation of findings intended for publication, and the requirements of peer reviewers and editors. Ethical judgements need to be made about how much detail can be presented about settings and participants in order to present a credible account and provide transferable knowledge. Depending on the topic and setting of the research, the researcher may want to provide relatively scant information in a submitted manuscript about the setting and participants in order to be confident of ensuring the anonymity of the participants. A peer reviewer may be concerned that the researcher's claim to have selected, say, a maximum variation sample, cannot be verified and may ask for more information to be provided about the identity of the location or participants. Sometimes editors and peer reviewers request a move in the opposite direction; for example, asking authors to remove the real names of towns where research had taken place even though participants had consented on the understanding that their towns would not be fictionalised. As with the situational ethical issues that arise during data collection, there are no hard and fast rules that cover all eventualities. The researcher will need to seek advice and balance the requirements of anonymity and confidentiality with the need to provide sufficient contextual detail to corroborate the account.

Ethical issues may extend beyond the completion of a research study. Increasingly, researchers are expected to archive datasets digitally for future use by other researchers. This has been driven by a number of factors, such as the radical fall in the cost of data storage, a desire to maximise the value for money of primary research (e.g. by facilitating secondary analysis of datasets) and the increasing interest in scaling up and generalising research findings. Linked to this, many journals require the deposit of datasets (especially from clinical trials) for other researchers to use, or so that journal referees can verify claims made in submitted papers. Whilst this practice remains uncommon in qualitative health research, with the increase in mixed method studies and the increasing number of universities with their own data archiving rules, it may become more common for all types of research data, including qualitative datasets. This poses a number of potential problems for qualitative researchers. The main difficulty is anonymity. If the study comprises fieldnotes of many hours of observations, video of conversations, or transcripts of large numbers of interviews, removing personally identifiable information is likely to be either very laborious or even impossible. If the primary researcher redacts large amounts of data, this then raises the question of whether the result is worth archiving as this may generate a dataset which is unusable by another researcher. Despite all these caveats, it is increasingly worthwhile to consider the possibility that qualitative data may need to be archived when planning a project, since this may affect which data are collected, how they are described, and how they are stored. Furthermore, staff time may need to be budgeted at the end of projects for preparing the dataset for archiving.

3.4 Relational Ethics

Closely associated with the situational ethics described above are concerns that surround researchers' relationships with research participants, and their responsibilities to research team members.

Researchers may obtain information through the research process that relates to the welfare of research participants and those around them. For instance, a researcher may come away from a home interview worried about whether the interviewee is neglected or at risk of harm. In general, decisions to intervene in such cases require a careful balancing of the autonomy of a member of the public and the obligation of the researcher to act as a good citizen (e.g. as a neighbour might behave). These issues often require situational or case-by-case resolution. The researcher can prepare by familiarising themselves with safeguarding policies and relevant research codes of practice, and by identifying an appropriate experienced/senior member of the research team who can advise.

In health care research, researchers who are also health professionals face an additional set of decisions related to safeguarding the interests of participants, especially in clinical and health service settings. Such researchers face a dilemma that may not apply to their non-clinical researcher colleagues as to whether, and if so how, to respond should they witness poor professional attitudes or practices in the course of a study [8]. Although, as a clinician, the researcher may be bound by professional codes of conduct to report inadequate care and/or conduct, she has obtained this information as a researcher. If the researcher only observes, she/he may feel implicated in any poor practice observed and the harm it may cause the patient. If she intervenes or reports the observed behaviour, she needs to be confident that she has fully understood the situation and the consequences of acting as well as the wishes of the patient, particularly if she is not able to consult them. These issues are complicated further when researching vulnerable groups and/or sensitive issues, where data collection is particularly likely to reveal concerns about the safety and wellbeing of participants.

Field [18] acknowledges the related difficulty for a researcher, who is also a member of the community being studied, to step back and observe the setting from a research perspective rather than helping out, for example, where a fellow professional is under pressure. She recognises that 'Nurses do not find it easy to sit in a corner and do nothing, particularly in an area that is busy and one they know well' (p. 94). This difficulty may be exacerbated when colleagues or patients, as research participants, know the researcher as a practitioner and do not distinguish between the two roles. The patient may expect that the researcher will intervene in their care, or may ask the clinician researcher for advice (e.g. on treatment options). Other researchers can find themselves in the same situation and they too need to have the skill to maintain their role as researcher, not therapist or friend.

Whilst it is entirely appropriate that most ethical concerns related to qualitative health research focus on ensuring the wellbeing of research participants, qualitative research can involve physical and mental health risks to the researchers themselves. These can arise in two main ways. First, the research may require the researcher to put themselves in potentially unsafe situations such as travelling alone at night, going into strangers' homes, or interacting with sub-groups in the population whose lifestyles are intrinsically risky. Second, the subject matter of the research may be highly emotionally sensitive or contested such that interviewers and/or interviewees may become distressed or negatively affected in some way. The main response to the former set of risks is a risk assessment, followed by mitigating steps such as ensuring that another team member knows where and when a colleague is going into a potentially dangerous situation and is informed as soon as they have safely returned. It is also important that the researcher understands the risks and has had the opportunity not to take part in the research. The main response to the latter set of risks is to identify resources for interviewers and interviewees (such as professional counselling, contact information for support services) in advance, if possible, and to allow opportunities for the researcher concerned to discuss what they have been exposed to with colleagues or a supervisor. All these cases are more easily managed in a research team than when the researcher is working alone.

3.5 Conclusion

Doing any kind of research raises a number of ethical issues, some of which are particularly salient and challenging for qualitative research. Good ethical research practice will always involve careful thought and the ability to make judgements throughout the research process. Overarching principles, and legal and regulatory requirements, can delineate minimum acceptable standards of practice. Alongside these, guidance documents and formal procedures can help researchers navigate and successfully deliver research, but ultimately qualitative researchers require reflexivity and, ideally, the support of other, experienced researchers to ensure best practice.

References

1. Beauchamp, T.L. and Childress, J.F. (1979). *Principles of Biomedical Ethics*. New York: Oxford University Press.
2. Green, J. and Thorogood, N. (2004). *Qualitative Methods for Health Research*. London: SAGE.
3. British Sociological Association. Statement of Ethical Practice. https://www.britsoc.co.uk/media/23902/statementofethicalpractice.pdf 2002. (accessed 12 April 2019).
4. Social Research Association. Ethical Guidelines. http://the-sra.org.uk/research-ethics/ethics-guidelines 2003 (accessed 12 April 2019).
5. Hoeyer, K., Dahlager, L., and Lynoe, N. (2005). Conflicting notions of research ethics: the mutually challenging traditions of social scientists and medical researchers. *Social Science and Medicine* **61**: 1741–1749.
6. Burgess, R.G. (1989). Grey areas: ethical dilemmas in educational ethnography. In: *The Ethics of Educational Research* (ed. R.G. Burgess), 60–76. New York: The Falmer Press.
7. Richards, H.M. and Schwartz, L.J. (2002). Ethics of qualitative research: are there special issues for health services research? *Family Practice* **19**: 135–139.
8. Dingwall, R. (1980). Ethics and ethnography. *Sociological Review* **28**: 871–891.
9. Hammersley, M. and Atkinson, P. (1995). *Ethnography: Principles and Practice*. London: Routledge.
10. Rosenhan, D. (1973). On being sane in insane places. *Science* **179**: 250–258.
11. Goffman, E. (1961). *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. Harmondsworth: Penguin.
12. Watson, M.C., Norris, P., and Granas, A.G. (2006). A systematic review of the use of simulated patients and pharmacy practice research. *International Journal of Pharmacy Practice* **14**: 83–93.

13 Punch, M. (1994). Politics and ethics in qualitative research. In: *Handbook of Qualitative Research* (eds. N.K. Denzin and Y.S. Lincoln), 83–97. Thousand Oaks, CA: SAGE.

14 de Laine, M. (1997). *Ethnography, Theory and Applications in Health Research*. Sydney: MacLennan and Petty.

15 Fluehr-Lobban, C. (1998). Ethics. In: *Handbook of Methods in Cultural Anthropology* (ed. H.R. Bernard), 173–202. Walnut Creek, CA: AltaMira Press.

16 Boman, J. and Jevne, R. (2000). Ethical evaluation in qualitative research. *Qualitative Health Research* **10**: 547–554.

17 Goodwin, D., Pope, C., Mort, M., and Smith, A. (2003). Ethics and ethnography: an experiential account. *Qualitative Health Research* **13**: 567–577.

18 Field, P.A. (1991). Doing fieldwork in your own culture. In: *Qualitative Nursing Research: A Contemporary Dialogue* (ed. J.M. Morse), 91–104. Newbury Park: SAGE.

Further Reading

Wiles, R. (2013). *What Are Qualitative Research Ethics?* London: Bloomsbury Academic.

4

Interviews

Lisa Hinton and Sara Ryan

Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

4.1 Introduction

A qualitative research interview involves asking research participants a set of questions. This may sound deceptively simple, particularly to clinicians who are experienced in conducting consultations with their patients, but qualitative research interviewing is a form of social interaction in which the interviewer must be able to listen to, and encourage, the accounts of others so that they feel safe to tell their story or share their views [1]. Qualitative interviews are not like the many other forms of interview that we come across in daily life – a job interview, a clinical encounter or consultation, or a media interview. Nor are they counselling sessions. The interviewer must guide the interviewees to tell their stories, being ready to prompt, follow up and explore interesting aspects of their accounts.

In a consultation, the clinician is attempting to drill down to the core of the problem by asking focused questions aimed at clinical understanding or diagnosis. In a research interview, the researcher is trying to understand the ways in which the participant makes sense of the phenomenon being studied. Traditionally, three types of research interviews have been identified: structured; semi structured; and depth interviews. A standardised format is used in structured interviewing with typically closed questions asked of the participant. These are questions which require a ‘yes’ or ‘no’ answer, like ‘Did you think the clinician answered all your questions

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

in enough detail?' This sort of interview is usually associated with administering a survey and the questions are not intended to generate qualitative data. In semi-structured interviews, the researcher will have an interview guide but will be more flexible in encouraging the participant to talk openly and will explore or probe issues that the participant raises. Depth interviews will use only a few, very open-ended questions as the aim is to understand the experiences, thoughts, and perceptions of the participant, allowing them more control over the agenda for the interview and usually more time to speak and reflect.

Qualitative interviews can be structured in different ways. Participants can be interviewed individually, in a couple, or in a small group (Chapter 5 looks in detail at a type of group interview called a focus group). Interviews can take place face to face, by telephone, using online video chat platforms (e.g. Skype), or by text messaging or email. Participants can be interviewed more than once to capture changes over time (longitudinal interviews) and other materials may be brought into the interview setting by the interviewer or interviewee; for example, photographs or objects as prompts for the conversation. Interviewers may also provide vignettes – short stories or accounts – to encourage participants to open up or think more deeply about the topic of the research.

Participants can be interviewed in their own homes, meeting rooms or even whilst walking or undertaking day-to-day chores. Liamputtong [2] details other different methods that have been used to encourage engagement from people who are seldom heard in research. She includes alternative approaches to interviewing, including joint interviews with more than one interviewer and a 'speak-alone monologue' approach that resembles an audio diary, allowing participants with particularly sad and upsetting experiences to provide accounts without the intrusive presence of the interviewer.

The idea that the researcher should be neutral and not 'contaminate' the interview, which used to be the expectation, is no longer salient advice on good qualitative interviewing. It is now accepted that the interview process is socially constructed rather than naturally occurring, and that interview data are uniquely generated through the interaction between the researcher and participant such that it is futile to imagine that the researcher does not influence what the interviewee says (see Edwards and Holland for a brief historical overview of this shift in how the role of the researcher is perceived in interviews [3]). Researchers use different styles of interviewing within the range from semi-structured to depth; whilst some advocate what Kip Jones has called a 'revolution in non-interruption' in an attempt not to break the shape or flow of the story once established [4], others take a more conversational and interactive approach. Gubrium and Holstein [5] call for 'active' interviewing in which the researcher stimulates, incites, and cultivates the knowledge of the participant. This might, for example, include encouraging the participant to reflect on their experiences from the viewpoint of being a mother, a daughter, a student, or a health professional.

An example of the benefits of using interviews is the study by Simmonds et al. [6] which used a semi-structured approach with 25 clinicians to understand their views and experiences of identifying and monitoring chronic kidney disease (CKD) in primary care. The space afforded by a loose topic guide and opportunities to reflect and introduce new ideas allowed these clinicians to articulate the cognitive dissonance they experienced reconciling guidelines with their own understanding of CKD.

In exploring the difficulties family members have recognising suicidal feelings in their relatives and intervening, Owens et al. [7] interviewed families and the wider social networks of individuals who had committed suicide to gain a range of perspectives. The interviews began with a very open ended question: 'Please tell me, in your own time, about [the deceased], about your relationship with him/her, and about what happened in the period leading up to his/her death.' This form of opening was designed to leave the participants the space to tell their own stories in their own words, before their initial narrative was followed with questions from the researcher. The researchers interviewed 31 people about 14 deaths and found that close family and friends are faced with a very complex task; their proximity to the person and emotional investment in the relationship make it difficult for them to see what is happening or to intervene. The authors conclude that increasing the capacity for other lay people, in wider extended networks, to play a role in preventing suicide is urgently needed.

Both of these examples not only illustrate different approaches to interviewing, but also demonstrate the important insights qualitative interview studies can generate.

4.2 What Makes a Good Qualitative Interview?

The most important skill is the ability to listen carefully and not interrupt. Listening actively involves curiosity and thinking about what the participant is saying. A skilful interviewer will allow the interviewees space to talk but also seek to prompt them to deepen or expand their accounts and make sense of them in their own terms. So, as well as asking questions, the other key role is listening attentively. Be aware that non-verbal cues – facial expressions, tone of voice, movement, appearance, eye contact, gestures, and posture – can all have a profound effect on the interaction. Careful listening involves thinking about what is *not* said as well as what *is* said. Listening at a superficial level will mean that important areas will remain unexplored and the subsequent data analysis will be impoverished. A key ingredient to a good interview is to remain reflexive and consider how characteristics such as the social class, ethnicity, gender, and age of the interviewer and interviewee can influence the interview. Paying attention to how the perceived power dynamics might affect the interview is particularly important. For example, if the interviewees know that the interviewer is both a medical professional and a researcher, this may influence the answers they give, especially if the interviews concern topics such as non-orthodox medicine use, alternative health beliefs or non-adherence to medication or treatment. It is therefore important that researchers consider how they have an impact on the ways in which interviewees tell their stories or answer questions.

It is also important to avoid, as far as possible, bringing pre-conceived notions to the interview. This is particularly relevant to clinical researchers who have a large body of technical knowledge which may not be shared by participants. Using lay rather than medical language (for example, talking about blood pressure rather than hypertension) as much as possible in asking questions will both help participants to clearly understand the question and make the interview experience less daunting. It is also important to ask participants to explain what they mean when they use particular phrases. It may be that the interviewer has a different understanding to the one the participant is drawing on. Care should also be taken to avoid imposing views about the 'correctness' or importance of responses offered. As an example of this, one of the authors (SR) often reflects on a project which involved interviewing mothers of autistic children. One mother said she always went to the supermarket with her son on a Saturday morning at 8 a.m. SR assumed that this was because it would be quiet and less disruptive for her son. When asked why 8 a.m., she said it was because her son liked to tap people on the arm and say 'Hiya'. She had found people were more likely to say 'Hiya' back when the shop was quieter earlier in the weekend morning. Asking probing questions before reaching predetermined interpretations can unpack the taken for granted meanings of various phrases or words and can generate rich data.

Interviews are human interactions. Whilst it is not possible to plan for every eventuality, being aware of some of the common pitfalls will help anticipate and then work to minimise them. There are practical considerations such as interruptions (from telephones, other family members, colleagues at work, or pets) or competing distractions (such as a small child present, or the television). Then, there are pitfalls within the interview itself – these might include participants going entirely off track, feeling nervous and hesitant, or not feeling comfortable with a particular line of questions. The interviewer can help here by trying to put the participant at ease before the interview starts through building rapport. During the interview, showing a genuine interest through active listening, maintaining eye contact, and asking follow-up questions that flow from the issues or stories the interviewee has been sharing will help.

4.3 Role of the Interviewer

The qualitative interviewer is an 'actor' in the interview process. We noted earlier how interviews are constructed by the participant and interviewer, so thinking about how power might come into play is important. Considering how you might be perceived by the participant – it might sound superficial, but thinking about what clothes to wear (business suit or more casual) – will be as much part of the preparation as checking that any audio-recording equipment is working. It might seem obvious that an interview with a young man might be very different if conducted by a peer in a relaxed, neutral location rather than by someone two or three decades older, who might look like a teacher, doctor, or other authority figure, dressed in a suit, and in a business office or doctors' surgery. But breaking through these barriers can often be vital. One example of where these barriers were overcome is the interview study by Raisanen and Hunt [8] that recruited men prepared to talk openly about their experiences of eating disorders. This study used an open narrative structure at the outset of the interview to allow these men spontaneously to express their views about eating disorders, conditions that are often inappropriately characterised as specific to women. Elsewhere, Pini [9] has described the challenges she faced as a woman interviewing the male leaders of an Australian agricultural organisation when she was a doctoral student. This included managing her own identity as well as dealing with sexual innuendo and comments about her appearance. On one occasion she took a male colleague with her to neutralise her presentation as a single young woman.

Thinking about your role as an interviewer and how you might be influencing the accounts told to you is a crucial part of developing your interviewing skills.

4.4 The Practicalities of Qualitative Interviews

4.4.1 How Many Interviews Is Enough?

Those new to qualitative research often find the small sample sizes in qualitative interview studies surprising. But the aim of qualitative interviews is to capture rich accounts, or a 'thick description' [10] of an experience (e.g. of living with a long-term illness, of undergoing major surgery, of working as an Accident and Emergency doctor or palliative care nurse) in the context of people's family, work, and social lives. These narratives help build a picture of how individuals make sense of, and shape, the world around them [1, 11]. The appropriate sample size for a study will depend on the research questions being asked and the methods being used – some especially detailed studies may interview 1 or 2 people for several hours, phenomenological studies typically have around 10 interviewees and studies based on Grounded Theory can go as high as 30–50 [12] (see Chapter 2 for more details about these different theoretically shaped approaches). Qualitative study samples do not aim to be statistically representative, but rather to generate data to answer a particular research question, (e.g. what is the range of experiences of young people living with a diagnosis of epilepsy?). This means that the question ‘how many interviews is enough?’ cannot be answered by a statistical calculation, but rather through iterative sampling and a judgement about when ‘data saturation’ (see Section 4.4.6) has been reached.

4.4.2 Sampling

Small sample sizes mean that selection criteria must be efficiently and rigorously applied so that the approach to sampling can be justified. Interviews are the building blocks of a rich study and enable a rigorous analysis (see Chapter 9), so choosing an appropriate and relevant sample is a key step in this process [13]. Sampling can be purposive, whereby the researcher/research team decides who should be included, driven by the research question. For example, a study of gender differences in help-seeking would deliberately sample men and women, and might purposively seek out respondents with a range of other socio-demographic characteristics. The term ‘theoretical sampling’ is generally used to describe an iterative process in which sampling develops from early analyses and explanations derived from the data.

Some studies may have to rely on convenience sampling, an opportunistic and pragmatic approach for sampling in studies where there are few potential participants that will agree to be interviewed (for example, participants involved in a small clinical trial of a new intervention which has not been offered to many people). But most qualitative research aims for a purposive sample where the researcher/research team have agreed on the characteristics of the sample they wish to include, based on their knowledge of the field, relevant literature, and the question they wish to try to answer. Characteristics will vary from study to study, but might include geographical location, age, gender, socio-economic status, ethnicity, and clinical diagnosis. Sometimes this kind of purposive sampling is referred to as theoretical sampling, indicating that it is informed by existing theories of how social groups are structured, but we reserve the term theoretical sampling for the selection of respondents or settings informed by hypotheses emerging from progressive analysis of the data, as used by Glaser and Strauss [14].

There are several techniques that can be employed to obtain a sample of respondents (see Box 4.1). These can, on occasion, be used

Box 4.1 Techniques for Selecting Respondents

Maximum variation – purposive sampling which aims to capture a wide range of different perspectives.

Homogenous – purposive selection of a set of similar cases.

Critical case – selection of cases that dramatically illustrate a particular phenomenon, which tends to be associated with theoretical sampling.

Confirming/disconfirming – an approach to theoretical sampling that involves selecting cases that support emerging patterns and explanations of the data, or potentially allow other, rival, explanations to be explored. Other terms for this include *negative* or *deviant case selection*.

Snowballing – pragmatic selection process in which one interviewee finds or suggests the next, which can be used flexibly with any of the techniques described above.

sequentially; for example, a study might start with a maximum variation approach but allow respondents to suggest further interviewees or, towards the end of data collection and when analysis is well advanced, theoretical sampling can be used to identify disconfirming or negative cases.

The quality of the sampling contributes to the overall quality of the study and is a key element of critical appraisal of studies (see Chapter 15). Things to consider include feasibility, relevance to the research question, and the extent to the which the attributes of those interviewed allow the transfer of findings and interpretations to similar populations or settings.

4.4.3 Recruitment

Finding interviewees is not always straightforward, and there are often time and financial constraints. Depending on your study, you might find interviewees through existing patient groups, newspaper and online advertisements or blogs, online support groups, and social media platforms like Facebook and Twitter. When recruiting through hospitals or other NHS premises, access can often be through gatekeepers and thought should be given to how the research is described and presented; for example, attending to the language and terminology used and the way that affiliations or relationships between the researchers and the gatekeepers are described. If you are planning on interviewing participants who want to speak a foreign language, an interpreter will be required. Whilst using an interpreter opens up the possibility of interviewing a broader range of participants, the presence of a third party whose role is central to the interview will inevitably affect the rapport you as the interviewer are able to establish.

4.4.4 Fundamentals – Quiet Space, Recording, and Transcription

There are a few basics to consider when planning your interviews. As much as you can, plan to interview your participants in a quiet place where you will not be disturbed. This might be at home, in an office or in a meeting room, or a room hired for the purpose. It is best to avoid public spaces both for privacy and noise concerns, unless for some reason interviewees are more comfortable being interviewed outside a home or professional or work situation. Wherever the interview takes place, the interviewer needs to be aware of how the location might influence the interview; for example, considering whether being interviewed at work, with other colleagues and peers around, will affect how open and relaxed a participant might be, or, if at home, whether there will be distractions of other family members or pets.

Qualitative interviews generally need to be recorded so that they can be transcribed for detailed analysis. The interviewer needs to decide on a recording method (audio recorder and/or digital video camera), and check the equipment is working and fully charged (or has the requisite spare batteries) beforehand. For detailed analysis, interviews are usually transcribed before analysis, and, depending on the research budget, this may be undertaken by the researcher or a professional transcribing service. There are different levels of transcription detail, depending on what sort of analysis you are planning to do. For example, a transcript for a conversation analysis (see Chapter 10) will be very much more detailed than a transcript that will be used for a thematic analysis (see Chapter 9).

4.4.5 Designing a Topic Guide

Also known as an interview schedule, a topic guide is a set of the key issues, themes, and possible probes that steer and focus a qualitative interview. It will vary in length and detail, depending on the extent to which the interview is to be structured. Experienced interviewers may find they only need broad subject headings, but others prefer to have open-ended questions.

Initially, the topic guide will be based on existing knowledge of the topic (e.g. informed by a literature review and previous experience, talking to experts/colleagues) and/or a preliminary focus group. But the key feature of a topic guide is that it should be flexible, not prescriptive, and therefore amended and added to as the interviews continue and as new aspects of the experiences of interviewees emerge that are worth exploring in later interviews. A topic guide should not be seen as a rigid blueprint for the interview, so questions do not have to be asked in the same order, and the questions/probes and language used can be adapted to each interview situation and respondent.

4.4.6 Data Saturation

Data saturation is a concept that is used to help decide when to stop collecting data – whether by interviews or observation. Whilst the number of participants interviewed may be constrained by time and financial limitations, data saturation should also guide the decision about whether sufficient interviews have been undertaken. At its simplest, data saturation is reached when the analyst concludes that no new themes or explanations are emerging from successive interviews.

4.5 Reflexivity

It is important to continually reflect on how well the interviews are going and to see whether there were consistently unasked questions or underexplored areas. For the first one or two interviews in a project, it is useful to ask a colleague with qualitative experience to read the transcripts and provide feedback on what went well and less well. Always make notes after an interview to capture the context of the setting, the participant, and initial thoughts on the content of the interview. Keeping a diary or writing memos whilst you are planning, recruiting and conducting your interviews can be a very helpful tool in tracking the progress of your research and is a further aid to reflexivity. Your diary can be a place to note challenges (such as the identity management noted by Pini, mentioned earlier) as well as emerging ideas that might later inform your analysis. Authors such as Charmaz [15] and Silverman [16] have written about the benefit of note taking throughout the research process. It helps keep track of how thinking has developed during the research and can be a very useful foundation for writing up at a later stage.

4.6 Conclusion

Qualitative interviewing is an important method to better understand how people make sense of their experiences and to gain a rich, detailed description of phenomena. Box 4.2 provides some exemplar studies that used qualitative interviews. There is a particular set of skills associated

Box 4.2 Examples of Good Interview Based Studies

- Malouf et al. [17] *'We both just wanted to be normal parents': a qualitative study of the experience of maternity care for women with learning disability*. Interviews were conducted with nine women with varying levels of cognitive impairment to explore their experiences of pregnancy, childbirth, prenatal, and postnatal care. The interviews highlighted the challenges women with a learning disability face in navigating pregnancy and maternity services.
- Forrest et al. [18] *Breast cancer in the family – children's perceptions of their mother's cancer and its initial treatment: a qualitative study*. Interviews were carried out with 37 mothers with early breast cancer and 31 of their children aged between 6 and 18 years. The study demonstrated that awareness of cancer existed in children, even among the youngest, and children suspected that something was wrong even before they were told the diagnosis.
- Riessman [19] *Strategic uses of narrative in the presentation of self and illness: a research note*. This paper examines the interview with a white working-class man diagnosed with advanced multiple sclerosis and the account given of his divorce and masculine identity, despite massive disability.
- Britten et al. [20] *Misunderstandings in prescribing decisions in general practice: qualitative study*. The authors identify and describe the misunderstandings that are associated with prescribing decisions through interviews with general practitioners and patients.
- Chapple and Ziebland [21] *Viewing the body after bereavement due to a traumatic death: qualitative study in the UK*. In the context of uncertainty around whether relatives should be encouraged to view the body after a traumatic death, this interview study (of 80 people bereaved by suicide or traumatic death) indicated that although seeing the body brought home the reality of death, and could be shocking, few said they regretted it.

with being a good qualitative interviewer – the ability to listen, establish rapport, and carefully probe and prompt participants – which needs to be learned. Good qualitative interviewing comes with training, practice, and continual critical reflection.

Clinicians may have to remain particularly mindful of their experiences of 'interviewing' patients during consultations if they are to adapt to qualitative research interviewing. The former involves drilling down rather than the broadening out that qualitative interviewing typically requires. It is important to remain flexible and think about different approaches to interviewing to enable inclusive participation in your research project.

References

1. Green, J. and Thorogood, N. (2007). *Qualitative Methods for Health Research*. London: SAGE.
2. Liamputtong, P. (2006). *Researching the Vulnerable: A Guide to Sensitive Research Methods*. London: SAGE.
3. Edwards, R. and Holland, J. (2013). *What Is Qualitative Interviewing?* London: Bloomsbury.
4. Jones, K. (2003). The turn to a narrative knowing of persons: one method explored. *NT Research* **8** (1): 60–71.
5. Gubrium, J.F. and Holstein, J.A. (2002). *Handbook of Interview Research. Context and Method*. Thousand Oaks, CA: SAGE.
6. Simmonds, R., Evans, J., Feder, G. et al. (2016). Understanding tensions and identifying clinician agreement on improvements to early-stage chronic kidney disease monitoring in primary care: a qualitative study. *BMJ Open* **6**: e010337.
7. Owens, C., Owen, G., Belam, J. et al. (2011). Recognising and responding to suicidal crisis within family and social networks: qualitative study. *BMJ* **343**: d5801.
8. Raisanen, U. and Hunt, K. (2014). The role of gendered constructions of eating disorders in delayed help-seeking in men: a qualitative interview study. *BMJ Open* **4** (4): e004342.
9. Pini, B. (2005). Interviewing men: gender and the collection and interpretation of qualitative data. *Journal of Sociology* **41** (2): 201–216.
10. Geertz, C. (1973). *The Interpretation of Cultures*. New York: Basic Books.
11. Meisel, Z.F. and Karlawish, J. (2011). Narrative vs evidence-based medicine – and, not or. *JAMA* **306** (18): 2022–2023.

12 Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* **11**: 3.

13 Morse, J. (2007). Sampling in grounded theory. In: *The Sage Handbook of Grounded Theory* (eds. A. Bryant and K.T. Charmaz), 229–244. London: SAGE.

14 Glaser, B. and Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine Publishing Company.

15 Charmaz, K. (1999). Stories of suffering: subjective tales and research narratives. *Qualitative Health Research* **9**: 362–382.

16 Silverman, D. (2005). *Doing Qualitative Research*, 2e. London: SAGE.

17 Malouf, R., McLeish, J., Ryan, S. et al. 'We both just wanted to be normal parents': a qualitative study of the experience of maternity care for women with learning disability. *BMJ Open* **7**: e015526.

18 Forrest, G., Plumb, C., Ziebland, S., and Stein, A. (2006). Breast cancer in the family – children's perceptions of their mother's cancer and its initial treatment: a qualitative study. *BMJ* **332**: 998.

19 Riessman, C. (1990). Strategic uses of narrative in the presentation of self and illness: a research note. *Social Science and Medicine* **30** (11): 1195–1200.

20 Britten, N., Stevenson, F., Barry, C. et al. (2000). Misunderstandings in prescribing decisions in general practice: qualitative study. *BMJ* **320**: 484–488.

21 Chapple, A. and Ziebland, S. (2010). Viewing the body after bereavement due to a traumatic death: qualitative study in the UK. *BMJ* **340**: c2032.

Further Reading

Brinkmann, S. and Kvale, S. (2014). *InterViews: Learning the Craft of Qualitative Research Interviewing*. London: SAGE.

Edwards, R. and Holland, J. (2013). *What Is Qualitative Interviewing?* London: Bloomsbury.

5

Focus Groups

Jonathan Q. Tritter[1] *and Bodil J. Landstad*[2]

[1] *School of Languages and Social Sciences, Aston University, Birmingham, UK*
[2] *Department of Health Sciences, Mid Sweden University, Sundsvall, Sweden*

5.1 Introduction

Focus groups have a long history as a research method used by social scientists since at least the mid-twentieth century [1], emerging from the use of group discussions in therapeutic settings and from market research [2]. More recently, they have gained a high profile in the media as a way of gauging political opinions and helping governments to shape policy development and public information campaigns. The main purpose of focus groups is to explore an issue about which little is known by generating insights from a group of participants of particular types who collectively have relevant knowledge [3]. Focus groups have been used increasingly in health care research following Kitzinger's seminal article in the *British Medical Journal* in 1995 [4], although there is some resistance in medical journals to publishing articles based on qualitative data [5]. In this chapter, we define focus groups and discuss how to use them in research. We then identify particular challenges and opportunities in the analysis of the qualitative data they generate.

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

5.2 What Is a Focus Group?

Focus groups bring 6–12 people together for a discussion on a specific set of topics. Sessions usually last 60–90 minutes and generate qualitative data that are usually audio-recorded, although video cameras are also used in some studies. Focus groups are a type of group interview but one in which the primary aim is to promote interaction between the group members rather than have each participant answer every question [6]. The researcher, therefore, plays the role of 'facilitator' or 'moderator' rather than 'interviewer'. The interaction between participants is based on comments and challenges to prior statements within the group, generating deeper and more nuanced understandings, although this rarely leads to consensus [7]. In some ways, a successful focus group is like a seminar with the facilitator setting the topics and shaping the discussion but the predominance of comments emerging from the group participants.

Some research relies solely on focus group data, but usually they are used as part of a multi- or mixed method design. For instance, a focus group early in a study can be used to identify topics as part of the process of developing a research instrument such as a questionnaire or interview topic guide [8, 9]. Similarly, draft questions for a survey can be discussed in a focus group to help ensure that the language used is appropriate for the study population, and that response categories are relevant, exhaustive, and understood as the researcher intends [10]. Box 5.1 provides an example of this from our own research.

5.3 Doing Focus Group Research

The first phase of a focus group, like any other empirical data collection, is based on defining the population, identifying a sampling frame, and working out how to select and recruit participants. Simultaneously, a topic guide must be designed that allows group members to engage with the main research issues rather than questions aimed at individuals. Sometimes, identifying potentially controversial issues can be useful as a strategy to promote discussion and encourage interaction between members rather than responses to the facilitator. Usually, a topic guide begins with an opportunity for participants to introduce themselves and an 'ice-breaker' question designed to encourage all members to speak. It may be worth considering if any props should be used to help focus the discussion; for

Box 5.1 Using Focus Groups to Adapt an Existing Survey Tool [11]

Focus groups provide an ideal mechanism to explore issues that researchers believe exist but about which little is known. In a recent study, we sought to translate and adapt a Swedish tool used to measure adverse events in hospitals in order to apply it to Norwegian hospital-based psychiatric care. This process involved not simply translation from Swedish to Norwegian, but adaptation of the instrument in a way that acknowledged the differences in both national and clinical cultures in the two countries. We used three focus groups, two with clinical staff and one with patients, to ensure the salience and relevance of the revised instrument in a Norwegian setting. The discussions in the group sought to verify the translation of the wording, adapt the tool to the Norwegian health care system and ensure the acceptability of the tool to clinical staff and patients. Participants were 16 clinicians from 3 clinical sites, varying by gender and age, clinical roles, and length of service; and 6 patients with experience of in-patient psychiatric care reflecting a mix of gender, age, and socio-economic backgrounds. In both groups, there was a significant drop-out rate. This is a frequent challenge in undertaking focus groups in health care settings and it is advisable to invite a larger number of participants, if possible, to accommodate this. Following the focus groups, the research team analysed the results and then fed these back using a *Dialogue Conference* in which participants from all of the focus groups came together to review key aspects of the triggers for adverse events that were identified. This served to both validate the findings used to adapt the tool and validate the final version. In addition, the findings were discussed and further validated with senior staff from the Norwegian Directorate of Health and Social Affairs and from the National Centre for Healthcare Research. The final version of the tool will be used nationally.

instance, a diagram illustrating a patient 'journey' could be used to identify and discuss particular challenges and possible responses. Identifying an appropriate location and timing for the focus group is also essential.

5.3.1 Recruitment and Sampling

Most literature suggests that participants in a focus group should share demographic characteristics and/or experiences related to the research topic. The argument is that these shared factors increase compatibility within the focus group, making participants more willing to share their views, which may be particularly important in considering sensitive topics such as the experience of health care [7, 12]. Alternatively, some researchers have stressed the benefit of heterogeneity within focus groups [13]. In previous research on people with cancer, focus groups with men and women with different types of cancer, at different stages in the progression of their disease, were very productive in research terms and positively viewed by participants [14]. The commonality of a diagnosis and treatment for cancer outweighed differences of age, gender, ethnicity, type of cancer, and treatment modality. However sampling and selection takes place, it is a good idea to collect data on the characteristics of the participants by sending them a short survey before the focus group that they can complete and bring with them.

The majority of focus group participants are recruited from pre-existing groups, as this is far more efficient and ensures some commonality of experience and potentially of demographic characteristics, locality or community [3]. Some have argued that this approach has the added benefit that people may feel more at ease discussing issues with people with whom they are familiar [15], whilst other scholars have suggested that prior familiarity may lead to self-censorship [12] or create pressure for consensus [1]. Identifying relevant participants is a central element of most empirical research, but for focus groups all the participants have to be available to meet at the same place and the same time. Arranging the group can be easier when using pre-existing groups. Consideration of the source of participants and the construction of a sampling frame must recognise that the primary consideration in recruitment and selection must be to maximise the scope for interaction within the focus group. An approach that recruits from pre-existing groups also recruits the prior knowledge and power dynamics inherent in the relationships between these participants. This approach is effectively a ‘convenience sample’, which gives the researcher less opportunity to purposively select participants; for some research questions, particular experiences or characteristics may be essential, whilst, for others, maximising diversity may be important. One way of at least partially mitigating the issues associated with recruitment through pre-existing groups is to use multiple groups as sources of participants and limit the number recruited from each individual group. However the sample is obtained, it is important to document and describe the recruitment process and eventual sample in sufficient detail for a reader to understand the range and number of people who were included.

5.3.2 Initiating the Focus Group

Focus groups begin with the collection of the pre-circulated demographic questionnaire; then the facilitator presents the main topic for discussion as well as a set of 'ground rules' and covers any relevant ethical issues such as how data will be recorded, stored, and used. The ground rules are intended to ensure that only one participant speaks at a time and that different views are respected. This initial stage often includes a discussion of the need to consider the sensitivity of topics raised in the group and a collective agreement to honour people's confidentiality. The intention is to create a 'safe space' and encourage all participants to share their views and experiences in a way that gives them confidence that their identities will not be disclosed inappropriately.

The next stage is often introductions. Typically, each participant is asked to introduce themselves and explain why the research topic is relevant to them. As an 'ice-breaker', some facilitators suggest that participants may also like to identify their favourite colour, flower, or ice-cream flavour. Some researchers use postcards or visual prompts, asking participants to pick an image and say why they chose it. The benefit of this process is to give all the participants a sense of who they are interacting with whilst discussing a non-contentious issue. It also ensures that the sound/video recording links each voice to a name (usually only first names) to aid with the transcription and analysis.

Krueger and Casey [3] argue that there are five different types of questions used in focus groups: opening questions (as discussed above); introductory questions (opening discussion on the main research topic); transition questions (to move between key topics); key questions (central to the research topic); and ending questions. The end stage of a focus group should be designed to give participants an opportunity to take a final position, what Morgan [12] refers to as an 'All things considered question' and respond to a summary question that provides an opportunity for the participants to reflect on the discussion collectively. This reflection is aided by the facilitator providing a brief summary of the key topics considered and the issues at the heart of the discussion. The response of participants to the summary provides an opportunity for respondent validation, elaboration, or challenge. It is also very useful to have this recorded as part of the focus group as it is often the initial stage of analysis. The final statement should clarify the way that the data are to be handled, the purpose of the research, and potentially include an offer of dissemination of a precis of the findings by a particular date. For focus groups that have dealt with sensitive issues, it may be appropriate at this stage to provide some contacts for additional information and support.

5.3.3 Follow-on or Second Focus Groups

Some researchers invite participants to join focus groups that meet on more than one occasion [16]. The researchers/facilitators may use the second group to check that they have understood points raised, and to explore interpretations from initial data analyses if there has been sufficient time between the two meetings. The second meeting of the group typically begins with a brief report of the key issues identified in the first focus group and may then revisit specific topics, introduce new questions, or probe further into areas of interest. Whilst the composition of the group is unlikely to be exactly the same, as not everyone is likely to attend both sessions, our experience has been that the interaction in the second meeting can be more revealing, perhaps because the group members are more familiar with each other and more comfortable with the format [14].

5.4 Analysis

Focus group data are qualitative and recordings are typically transcribed verbatim. In most studies, analysis is approached in the same way as an interview transcript. This typically involves coding the data using a combination of codes based on existing literature and others that emerge inductively within the discussion. However, this approach can miss the added value of the interactive element of focus groups and produce superficial or simplistic analysis. Focus group data are the product of the interaction of the facilitator and the participants over a period of time, and they contain a mix of incomplete and interrupted speech [17]. The analysis needs to attend to these interactional features as well as the content of the talk. Interviews tend to move from a broad to a more focused consideration of an issue and this may shape the respondents' articulation of their position. However, in a focus group, the interaction creates a dynamic that often shifts the position of individual participants during the discussion. A statement by a particular participant early in a focus group may set out a position on a topic that later in the same discussion is articulated in an entirely different way as a consequence of the intervening exchange. For the researcher, this presents a quandary, as without considering the temporality of the statement or the nature of the intervening discussion, the same individual could be coded with diametrically opposed positions. This is further complicated by the need to disentangle both individual participant's views (and how they change) as well as group or collective views, since focus groups generate both group and individual level data [18].

In focus groups, the group dynamics can be seen and heard shaping participants' views, and are apparent in silences, respondent disclosure, and dominant speakers. Kitzinger and Farquhar [19] suggest that researchers in their analysis should seek out 'sensitive moments' when participants reveal experiences that go beyond 'pre-rehearsed shared public knowledge', and these are typically indicated by hesitation, a strong reaction, or defensiveness. Individual revelations usually not made in a public setting that often occur in focus groups are likely to influence collective views and the direction of the discussion, and need be taken into account in the analysis.

One way to analyse the discussion is to begin by dividing the transcript into sections such as introduction, topics 1–4, summary, and response. This can reveal the flow of the conversation and the points at which discussion shifts and when new ideas are introduced. It can also be worthwhile to examine who is dominant in the discussion by enumerating the number of utterances and also the total number of words spoken by each participant [16, 20]. Colour coding the transcript can likewise assist in the differentiation of speakers to help see patterns, and this is useful for identifying where an individual dominates discussion and whether this dominance relates to certain subjects.

5.5 Ethical Issues

Focus groups can raise particular ethical issues for researchers. Recruitment should be based on the usual principles of informed consent by providing appropriate written and/or oral information accompanied by an opportunity for questions and clarification. The data that are generated can be anonymised and extracts published using pseudonyms. However, the nature of this form of data collection means that the identity of participants is known to the other focus group participants. Participants may discuss what took place in a focus group and repeat statements that were made there, and this is particularly likely if participants are known to each other outside the setting of a research study, perhaps because they have been recruited from a pre-existing group. This may be a significant issue when disclosures create the kinds of 'sensitive moments' mentioned earlier. The researcher can try to mitigate this challenge to confidentiality. If the group is newly formed for the research and members are not known to each other, the researcher can ask participants to use only first names and not to share contact details. In addition, the initial briefing about the focus group before the introductions can include a discussion of confidentiality and emphasise a version of the Chatham House Rule that 'participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant may be revealed' [https://www.chathamhouse.org/about/chatham-house-rule].

5.6 Conclusion

Focus groups continue to be an insightful way of exploring people's views and how these are shaped by social interaction. In health care settings that increasingly stress the need for a patient-centred approach to research, they are a fruitful way to gather the views and experiences of groups of patients and service users that offers them more control of the interaction. It is this interaction that generates the data and potentially this can reveal a range of experiences and views – and group members can challenge and probe ideas. Rather than being seen as an opportunity to undertake a set of interviews simply to increase the number of respondents, the focus group should be regarded as a distinctive data collection method and analysed appropriately.

References

1 Merton, G., Levine, R., Koocher, G. et al. (1998). Community consultation in socially sensitive research: lessons from clinical trials for treatment for AIDS. *American Psychologist* **43** (7): 573–581.

2 Szybillo, G.J. and Berger, R. (1979). What advertising agencies think of focus groups. *Journal of Advertising Research* **19** (3): 29–33.

3 Krueger, R. and Casey, M.A. (2015). *Focus Groups: A Practical Guide for Applied Research*, 5e. London: SAGE.

4 Kitzinger, J. (1995). Qualitative research: introducing focus groups. *BMJ* **311**: 299.

5 Greenhalgh, T., Annandale, E., Ashcroft, R. et al. (2016). An open letter to *The BMJ* editors on qualitative research. *BMJ* **352**: i563.

6 Kitzinger, J. (1994). The methodology of focus groups: the importance of interaction between research participants. *Sociology of Health and Illness* **16** (1): 103–120.

7 Liamputtong, P. (2011). *Focus Group Methodology: Principles and Practice*. London: SAGE.

8 Sorensen, K., Van den Broucke, S., Pelikan, J. et al. (2013). Measuring health literacy in populations: illuminating the design and development process of the European Health Literacy Survey Questionnaire (HLS-EU-Q). *BMC Public Health* **13**: 948.

9 Sawyer, T., French, H., Ades, A., and Johnston, L. (2016). Neonatal-perinatal medicine fellow procedural experience and competency determination: results of a national survey. *Journal of Perinatology* **36** (7): 1–5.

10 Galliott, N. and Graham, L. (2016). Focusing on what counts: using exploratory focus groups to enhance the development of an electronic survey in a mixed-methods research design. *The Australian Educational Researcher* **43** (5): 567–585.

11 Okkenhaug A., Meirik K., Landstad B.J., et al. Global Trigger Tool in mental health and substance abuse (GTT-P). International Forum on Quality and Safety in Healthcare, Amsterdam. 2018.

12 Morgan, D. (1988). *Planning Focus Groups: Focus Group Kit 2*. Thousand Oaks, California: SAGE.

13 Greenwood, N., Ellmers, T., and Holley, J. (2014). The influence of ethnic group composition on focus group discussions. *BMC Medical Research Methodology* **14**: 107.

14 Tritter, J. (2009). Getting to know myself' changing needs and gaining knowledge among people with cancer. In: *The Sociology of Long Term Conditions and Nursing Practice* (eds. E. Denny and S. Earle), 151–168. Basingstoke: Palgrave.

15 van Teijlingen, E. and Pitchforth, E. (2006). Focus group research in family planning and reproductive health care. *Journal of Family Planning and Reproductive Health Care* **32** (1): 30–32.

16 Parker, A. and Tritter, J. (2006). Focus group methods and methodology: current practice and recent debates. *International Journal of Research and Method in Education* **29** (1): 23–37.

17 Kitzinger, J. (1994). Focus groups: method or madness? In: *Challenge and Innovation: Methodological Advances in Social Research on HIV/AIDS* (ed. M. Boulton), 159–170. London: Taylor & Francis.

18 Hyden, L.C. and Bulow, P.H. (2003). Who's talking: drawing conclusions from focus groups-some methodological considerations. *International Journal of Social Research Methodology* **6**: 305–321.

19 Kitzinger, J. and Farquhar, C. (1999). The analytical potential of 'sensitive moments' in focus group discussions. In: *Developing Focus Group Research: Politics, Theory and Practice* (eds. R. Barbour and J. Kitzinger), 156–172. London: SAGE.

20 Lester, H.E., Tritter, J., and Sorohan, H. (2005). Providing "good enough" primary care for people with serious mental illness – a focus group study. *BMJ* **330**: 1122–1127.

Further Reading

Liamputtong, P. (2011). *Focus Group Methodology: Principles and Practice*. London: SAGE.

Barbour, R. (2008). *Doing Focus Groups*. London: SAGE.

6

Observational Methods

Catherine Pope[1] *and Davina Allen*[2]

[1] *Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK*
[2] *School of Healthcare Sciences, Cardiff University, Cardiff, UK*

6.1 Introduction

Chapters 4 and 5 looked at methods of data collection – interviews and focus groups – that rely on talking to people. This chapter examines ways of collecting qualitative data by watching what people do. One good reason for employing observational methods is that we cannot be sure that what people say they do is what they actually do [1]. Observation can be used to address this problem – instead of asking questions about behaviour, the researcher systematically watches people, and their social interactions and everyday activities. This can be especially useful when studying how health care organisations work and how staff practice, and for understanding the complex relationships between staff and recipients of services.

Observation is a core method in ethnography and anthropology (the branch of social science that studies past and present human societies, exploring human development, language, and culture). It is also the main method of the natural sciences: the biologist observes the development of cell structures and the chemist observes chemical reactions. Epidemiologists use the term 'observational' to describe non-experimental studies, and clinical and experimental psychology also uses observation, as do clinicians monitoring a patient in a hospital bed. However, there are crucial differences between the ways that qualitative researchers

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

use systematic, detailed observation of behaviour and talk, and the kinds of observation conducted in the natural and medical sciences. First, in the social world, those observed can use language to describe, reflect on, and argue about what they are doing. Second, in social science research, the observers are inescapably part of the world that they study. This shared understanding of the social world between participants and researchers makes this type of research very different from the observation of laboratory rats or electrons.

Thinking back to the discussion about theory in Chapter 2, observational methods might seem best placed nearer the realist end of the ontological continuum, such that the researcher is observing an external, objective reality. This realist positioning underpins the aspiration in much qualitative observational research to be naturalistic, that is to study people in naturally occurring situations with as little interference by the researcher in what takes place as is feasible and ethical [2]. However, to complicate matters, there are some philosophical challenges to this ontological and epistemological position [3, 4]. Hammersley [5], for example, has noted that whilst there is indeed a strong realist strand in ethnography, there is an equally strong relativist stance that argues that what researchers observe and understand from their observations is inherently subjective and socially constructed. This is apparent when the researcher becomes a member of the group studied, either as a deliberate research strategy – for example, when Goffman studied psychiatric institutions from the inside [6] – or involuntarily, when the researcher examines their own experience of illness [7]. One way out of these polarising positions is offered by Hammersley, who proposes the idea of 'subtle realism', which accepts that there is a social world external to the observer but that it can only be understood through his or her subjective perception. Hammersley also recognises that, because we are interested in subjective understandings and meanings of those we study, these methods have ontological and epistemological affinities with interpretivist approaches. This seems to us to be a helpful position.

6.2 Observational Methods and Ethnography

Observation is frequently employed in studies that adopt an ethnographic approach and perhaps as a result qualitative observation is often used synonymously with the term ethnography. However, this is not entirely accurate. *Ethnography* (literally, ‘the study of the people’), rather confusingly, can be used to refer to the research process (including design and methods) as well as the product of the research (i.e. the written report based on the research process). Ethnography emphasises the importance of understanding the symbolic world in which people live, seeing things the way they do, and grasping the meanings they draw on to make sense of their experiences. To do this, the researcher needs to observe daily life, ideally living with – and living like – the people studied. In a perfect world, this entails prolonged contact with the setting (often termed ‘the field’) and the groups being studied – a process described as ‘immersion’. Whilst observation is central to this process, typically ethnographic research incorporates additional methods, such as interviews, and it may also include the analysis of documents and even quantitative data. As a result, it shares many features with case study and mixed methods research (see Chapters 12 and 13) which also often uses observational methods, amongst others.

In health care, ethnography has been used to study different care settings – such as the cancer ward or the psychiatric hospital – where observation has been used to explore organisational cultures and practices. Ethnography has also been deployed to study medical education [8, 9], health technologies and work practices [6, 10, 11], structures such as timetables of care [12, 13], health beliefs [14], and a range of care processes [15], notably care of the dying [16, 17].

6.3 Rationales for Observational Studies in Health Care Research

Whilst observational methods can be used to study a range of phenomena, they can be used for different purposes, ranging from foundational studies designed to develop a deeper understanding of neglected issues or less well understood areas, through to research that uses these methods to support quality improvement or organisational change.

Many early observational studies in health care were unavoidably foundational and they established important areas and topics of research that have endured. Jeffery’s [18] study of hospital emergency (A & E) departments in the United Kingdom is a classic example of a foundational study. He documented the categorisation by staff of patients into ‘good’ and ‘rubbish’, the latter consisting of drunks, vagrants, parasuicides, and other patients who, because of the conflicting pressures on staff, were seen as inappropriate attenders. This observational work laid the ground for subsequent studies of patient categorisation processes as a way of understanding the work of emergency care staff in managing patient flows and referral processes. Dingwall and Murray [19] developed and extended Jeffery’s model using observation and interviews to examine how such categorisation processes were not applied to children because, unlike adults, they were not considered responsible for their condition or presentation in the emergency department. This work has been further augmented by Hughes’ [20] study of UK emergency department reception clerks’ use of discretion when prioritising and categorising attenders, and Vassy’s study [21] showing how staff in French emergency departments positively discriminated in favour of those seen to be in ‘real need’ (as they saw it), softening the rationing of care in their favour. More recently, Hillman [22] has built on this work to examine the negotiation processes that occur between patients and staff in which patients and relatives try to establish that their presentation in the emergency department is legitimate. These observational studies provide clear insights into how and why patients are managed as they are in such settings. They reveal behaviours of staff in categorising, labelling, and processing patients that are so embedded in the organisational culture that only an outsider would have considered them noteworthy. It is unlikely that interviews alone would have been able to uncover these kinds of insights.

Observational methods may also be used to explain patterns of behaviour or to make sense of findings from a quantitative analysis. Statistical analyses of surgical data in the 1980s demonstrated the persistence of geographical variation in the rates of common surgical procedures such as hysterectomy and tonsillectomy that did not seem to be accounted for by patterns of underlying disease. Bloor’s classic study [23] used observational methods to examine the decision-making practices of Scottish surgeons with high or low tonsillectomy rates. Bloor observed surgeons as they examined patients in clinics and afterwards interviewed them about their decisions to operate or not. He argued that the statistical patterns were produced by very different ‘rules of thumb’ – the tacit and idiosyncratic influences on decisions which led some surgeons to advise surgery based on physical findings, and others to weigh up other factors from the patient’s medical history which might discourage surgical intervention.

Another, increasingly common, use of observational methods is in the development, implementation, and evaluation of interventions designed to improve health care or services. Observation can be helpful in identifying the kinds of intervention that are needed and appropriate as well as highlighting the barriers and facilitators to organisational and practice change. For example, Allen [24] used observational methods to examine the development of Integrated Care Pathways – descriptions of the expected care and its sequencing – used to coordinate work by multidisciplinary care teams. This work highlighted significant challenges involved in reconciling the different requirements of multiple participants – clinical staff, managers and patients – and demonstrated how the necessary trade-offs shaped the implementation of Care Pathways.

A more recent extension of the application of observational methods has been as a method for intervening in practice. For example, Iedema et al. [25] have pioneered the use of video-recorded observations to reveal the informal and unspoken ways that safety is preserved in health care. This work can then be used to provide feedback to health care professionals to enable them to provide safer care.

Observational methods are also increasingly used in large-scale mixed methods studies to assess changes in care practice or service configuration. The PUMA study [26] is an interrupted time series study of the implementation of a new paediatric early warning system improvement programme to aid the management of acutely ill children. Observational methods are being used to both complement quantitative outcome measures, before and after the implementation of the new system, and to understand the implementation process. Observational methods may also be used in process evaluations embedded in randomised controlled trials (RCTs) to understand how and why the trialled interventions succeed or fail. One example of this was the RIPPLE cluster RCT [27] investigating whether peer-delivered sex education was more effective than lessons delivered by teachers in reducing risky sexual behaviours by young people. Observation of how the interventions were delivered identified important ingredients of the lessons, notably the role of participative and skills-based components in the lessons led by peers rather than by teachers. Similarly, qualitative observation has been used to understand the implementation of new ways of delivering health care – for example, exploring the effort required to bring new triage software and telephone assessment into everyday use in urgent and emergency care services in England [28].

6.4 Practical Issues to Consider When Using Observational Methods

6.4.1 Ethical Issues

There are significant ethical concerns that need to be addressed when using observational methods in health care contexts. These are discussed in more detail in Chapter 3. In settings where there are lots of people or where their involvement is transient, such as clinic waiting rooms, it may be difficult to inform all participants that observation is taking place. In other settings, getting written consent from those being observed may be problematic; for example, when doing so might interrupt the delivery of care (as Allen found when shadowing a junior doctor who was called to a patient who had suffered a cardiac arrest), or when the environment is challenging (as Pope found when conducting observational research on emergency ambulances). Unlike interviews and focus groups, observation also occurs over a sustained period of time, presenting the issue of ensuring that consent is continually obtained or refreshed. It can be easy for people to become accustomed to the presence of a researcher, and seeking consent to continue – or visible note taking – can be used to remind participants that research is taking place in a clinical setting.

6.4.2 Access to the Field

The first task in observational research is choosing and gaining access to the setting or 'field'. Occasionally, access to the setting leads to opportunistic research – Roth [29] happened to have tuberculosis (TB) when he conducted his research on life in a TB hospital – but few researchers have it this easy (or difficult). Most have to decide on the type of setting they are interested in and negotiate entry. The choice of setting is typically purposive; the idea is not to choose a setting to generalise to a whole population (as would be the case in a statistical sample), but to select a setting that is likely to demonstrate salient features and behaviours relevant to the research question. Hughes and Griffiths [30] deliberately selected the very different settings of neurology and cardiology clinics as the basis for their research on micro-level health care rationing to allow them to look at two contrasting areas of clinical practice – but both where significant resource constraints apply.

Access to a setting or group is often negotiated via a 'gatekeeper', someone in a position to allow and, ideally, to facilitate the research. In health care settings, this may involve negotiating with different staff, including doctors, nurses, and managers. The first and principal point of contact is important: this person may be seen to sponsor or support the research and this can affect how the researcher is perceived by the group. This can be problematic, as Atkinson [31] found in his study of haematologists: although he had gained access via a very senior member of staff, he initially encountered hostility and some resistance from more junior staff and had to work hard to be accepted by the group. The researcher may be expected to reciprocate the favour of having been granted access, perhaps through subtle pressure to produce a broadly positive account. Even without this pressure, it is not uncommon for observers to become enrolled in the life of the setting, to the extent of being asked to assist with paperwork, running errands, or simply holding a nervous patient's hand. This is not necessarily a bad thing as long as the researcher is aware that this increases the likelihood of not only empathising with the staff, but also perhaps siding with them. The researcher thus needs to establish good rapport, but also guard against 'going native' (that is, becoming so immersed or emotionally engaged as to lose the ability to stand back and analyse the data, or to conclude the data collection). It is worth noting that characteristics of researchers and those being studied – gender, age, and level of experience, for example – may affect access to the setting as well as the interactions that take place [32, 33].

6.4.3 Research Roles

Observers may adopt different roles depending on the type of setting and how access was obtained. These roles range from 'detached observer' to 'active participant', and the researcher may find that as they spend more time in the setting they move from the former to the latter or try to position themselves along this continuum for research purposes. Allen undertook an ethnographic study of lay involvement in nursing care in hospital and was able to observe clinical work from the bedside to understand patient and family perspectives [34]. In semi-public spaces, it may be possible unobtrusively to watch what goes on. However, the presence of an observer, particularly in small or more private settings, may stimulate modifications in behaviour or action – the so-called Hawthorne effect [35].

Those being observed may also begin to reflect on their activities and question the observer about what they are doing. This effect of the observer seems to reduce over time and may also be minimised by participating in the activities taking place whilst observing them, but, as noted above, the researcher needs to balance being unobtrusive with the need to ensure ongoing consent. On rare occasions, observation may be done covertly, as in Goffman's research [6] on the asylum where he worked as physical education instructor, or in Rosenhan's study [36] where observers feigned psychiatric symptoms to gain admission to a psychiatric hospital. Covert research roles, whilst ethically challenging, may be justified in certain circumstances, such as researching particularly sensitive topics or difficult-to-access groups. Whatever the strategy, it is important that this reflects the aims of the research and is not driven by the psychological needs of the researcher. It may be tempting for observers with a clinical background to slip back into the roles with which they are comfortable rather than experience discomfort by presenting as a novice researcher or seeking to refresh consent for data collection.

6.4.4 Recording Observational Data

The classic method for recording observational data is through the creation of fieldnotes. This relies on the researcher acting as the research instrument and documenting the world she or he observes. This requires not only good observational skills, but good memory and/or clear, detailed and systematic recording. The research role adopted can influence the process of recording; it is often possible to take notes in the setting as events occur, but sometimes this may be impractical or off-putting. Jotted notes made where possible during observation can aid recall (one way of making such notes is to find excuses to leave the setting for a few minutes to write up, though, inevitably, any time away means that episodes of activity are missed!). Video-recording can also be used. Hindmarsh and Pilnick [37] used video data in their fine-grained analysis of coordination practices in anaesthetic rooms and others [11] have combined digital recording with handwritten notes. Researchers need to be aware that recordings can add significantly to the amount of data that then needs to be analysed. The recording method needs to be appropriate to the specific study.

Beyond decisions about how to record observations, it is also important to make decisions about what to record. Observational data collection can be very open and unstructured, (inductive) or more focused and structured (deductive), and a study might proceed from one to the other over time or even move backwards and forwards between the two. Whilst good observational research is characterised by a deep understanding of the setting and the participants, it is easy, when adopting an inductive approach, to become overwhelmed by the volume of information on entering the field and to lose sight of the research focus. In order to counter these risks, some researchers use a structured list of items to focus their observation. Silverman developed a coding form for his observational study of paediatric cardiology clinics to capture previously identified aspects of doctor–patient communication [38]. Another way of structuring observation, after familiarisation with the field, is to focus on discrete events or specific contexts, such as observing examples of a particular interaction or type of meeting or watching practice in the same area of a ward or clinic over time. More deductive or structured approaches may be especially helpful when working in teams of researchers and/or to support comparative analysis; for example, when studying several cases (see Chapter 13 for discussion of comparative case study research).

Fieldnotes provide detailed accounts of what was observed, a chronology of events, and a description of the people involved – their talk and their behaviour. Notes or jottings need to be written up as full fieldnotes as soon as possible after the observation period. It is important that concrete descriptions are recorded, and not simply impressions. Different researchers have different writing styles – they may prefer writing in the first or third person, and fieldnotes may be constructed as real-time accounts (i.e. in the present tense) or retrospective descriptions. Emerson et al. [39] provide a more detailed exposition of various styles that can be used and conventions for denoting different types of observation, such as verbatim quotes from conversations, non-verbal behaviour and gestures, or spatial representations. The researcher needs also to document his or her personal impressions, feelings, and reactions to these observations. These more reflexive data may be held in a field or research diary and can be a useful support to subsequent analysis. Suffice to say, the process of writing takes considerable time; as a rule of thumb, we suggest that every hour of field observations equates to a further two hours of writing up. Fieldnotes provide a written record of observation, but they are only the raw material of the research and do not by themselves provide explanations. The researcher has to sift, decode, and make sense of the data to make them meaningful. This analytical process is entwined with the data collection and the writing up, as is generally the case in qualitative research. Emerging categories or tentative hypotheses about the data may be tested during further fieldwork; more cases or examples (or contradictory ones) may be sought.

6.5 The Relationship Between Theory and Observational Research

Observational research has a strong association with theory development. For example, Glaser and Strauss' studies of awareness of dying are regarded as a classic example of 'grounded theorising'. More recently, May and colleagues developed Normalisation Process Theory based on a series of empirical studies that included observational research to understand the process of implementing changes in health care organisations [40]. This theory, in turn, provided a framework for observational data collection and analysis in a study of call handling in telephone triage in NHS urgent and emergency services [27]. Existing theories may aid analysis of observational data. For example, Allen used theories about how people negotiate with each other within different organisational structures [41] to inform her study of inter-professional working in an NHS hospital [42]. This revealed that nurses were taking on new tasks previously performed by doctors, but that this was accompanied by additional work directed at maintaining their professional identity as nurses. In line with the earlier discussion of the implications of different philosophical perspectives in this chapter, it is important to remember that choices about using or developing theory have implications for what is observed and how these data are interpreted.

6.6 Analysis

The analysis of observational data is described in more detail in Chapter 9. In essence, it entails close reading and rereading of all the fieldnotes, and an iterative process of developing categories and testing and refining them to develop explanations. Different methodological and theoretical perspectives can influence this process and the way in which observational data are treated. These different stances are complex and hotly debated, and there is insufficient space to describe them in detail here; interested readers may wish to consult further sources [43, 44]. The format chosen for the study results, which may be a short paper, through to a monograph or longer, will also have a bearing on how the data and analysis are represented.

6.7 Quality in Observational Studies

The quality of observational studies depends more than most methods on the quality of the researcher. There is a particular responsibility on the researcher to provide detailed descriptions of the processes of data collection and analysis, including details about how much time was spent in the field, the researcher's proximity to the action or behaviour discussed, and how typical the events recorded were. It is helpful to explain whether any attempts were made to verify the observations made (such as observing comparable settings or seeking out other sources of information, such as documents). It is a mistake to think that the observer will necessarily capture 'everything'. Even the presence of several observers, or audio-visual-recording, cannot ensure this; but, as far as possible, the researcher should document in detail what happened and what they observed. These descriptions provide an indication of the quality of an observational study. In addition, it is sometimes possible to check the verisimilitude (the appearance of truthfulness) of an observational study by looking at previous research in similar settings or with similar groups.

One criticism of contemporary ethnography levelled by Hammersley [5] is that it seldom adheres to the idea of 'immersion' in the field. Whilst Glaser and Strauss [17] collected their data about care of the dying over several years, few researchers are able to observe or be part of the group they are studying for such long periods of time, especially if they depend on research grants for their funding. They may focus on a single setting, or conduct part-time research, and there is a danger that such research will fail to take account of wider, systemic institutional change and/or cyclical patterns of activity. To address this, researchers should ensure that sufficient data are captured and be careful about the assumptions they make based on relatively short periods of observation. It is also important to fully explore the phenomena of interest by maximising the range of behaviours, events, and people observed, incorporating different times of day, days of the week, months, and so on. Some researchers sample random blocks of time; or observe particular aspects of the setting or particular individuals for a fixed period, and then move on – say, observing a clinic from the reception area and then moving to the nurses' station. Findings from earlier observations can be analysed to identify times or activities that require further observational data collection and observation can be combined with other methods of data collection to address concerns about the comprehensiveness of the data or lack of immersion. These considerations are particularly pertinent in the case of so called 'rapid ethnographies', an approach that is increasingly being used in the health care sector [45].

Chapter 14 discusses the issues of quality in qualitative research in more detail. Done systematically and carefully, observational studies can reveal and explain important features of life in health care settings that are not accessible in other ways. The very best, like Goffman's classic study of the asylum [6], can generate insightful and enduring concepts that can be applied to other settings and that add immensely to our knowledge of the social world.

References

1. Heritage, J. (1984). *Garfinkel and Ethnomethodology*. Cambridge: Polity.
2. Blumer, H. (1969). *Symbolic Interactionism*. Engelwood Cliffs, NJ: Prentice Hall.
3. Smith, J.K. and Deemer, D.K. (2002). The problem of criteria in the age of relativism. In: *Handbook of Qualitative Research*, 2e (eds. N. Denzin, Y. Guba and S. Lincoln), 877–896. Thousand Oaks, CA: SAGE.
4. Hammersley, M. (2009). Challenging relativism: the problem of assessment criteria. *Qualitative Inquiry* **5** (1): 3–29.
5. Hammersley, M. (1992). *What's Wrong with Ethnography? Methodological Explorations*. London: Routledge.
6. Goffman, E. (1961). *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. Harmondsworth: Penguin.
7. Horlick-Jones, T. (2011). Understanding fear of cancer recurrence in terms of damage to 'everyday competence'. *Sociology of Health and Illness* **33** (6): 884–898.

8 Geer, B., Hughes, E.C., Strauss, A., and Becker, H.S. (1961). *Boys in White: Student Culture in Medical School*. New Brunswick, N.J.: Transaction Press.

9 Sinclair, S. (1997). *Making Doctors: An Institutional Apprenticeship (Explorations in Anthropology)*. Oxford: Berg.

10 Livingston, J. (2012). *Improvising Medicine: An African Oncology Ward in an Emerging Cancer Epidemic*. Durham, N.C.: Duke University Press.

11 Swinglehurst, D., Greenhalgh, T., Myall, M., and Russell, J. (2010). Ethnographic study of ICT-supported collaborative work routines in general practice. *BMC Health Services Research* **10**: 348.

12 Zerubavel, E. (1979). *Patterns of Time in Hospital Life. A Sociological Perspective*. Chicago: University of Chicago Press.

13 Roth, J. (1963). *Timetables*. New York: Boobs-Merrill.

14 Davidson, C., Davey Smith, G., and Frankel, S. (1991). Lay epidemiology and the prevention paradox: the implications of coronary candidacy for health education. *Sociology of Health and Illness* **13**: 1–19.

15 Allen, D. (2015). Inside "bed-management": ethnographic insights from the vantage point of UK hospital nurses. *Sociology of Health and Illness* **37** (3): 370–384.

16 Sudnow, D. (1967). *Passing on: The Social Organization of Dying*. Englewood Cliffs, N.J.: Prentice-Hall.

17 Glaser, B. and Strauss, A. (1965). *Awareness of Dying*. Chicago: Aldine Publishing Company.

18 Jeffery, R. (1979). Normal rubbish: deviant patients in casualty departments. *Sociology of Health and Illness* **1**: 90–108.

19 Dingwall, R. and Murray, T. (1983). Categorisation in accident departments: 'good' patients, 'bad' patients and children. *Sociology of Health and Illness* **5**: 127–148.

20 Hughes, D. (1989). Paper and people: the work of the casualty reception clerk. *Sociology of Health and Illness* **11**: 382–408.

21 Vassy, C. (2001). Categorisation and micro-rationing: access to care in a French emergency department. *Sociology of Health and Illness* **23** (5): 615–632.

22 Hillman, A. (2013). 'Why must I wait?': the performance of legitimacy in a hospital emergency department. *Sociology of Health and Illness* **36** (4): 485–499.

23 Bloor, M. (1976). Bishop Berkeley and the adenotonsillectomy enigma: an exploration of variation in the social construction of medical disposals. *Sociology* **10** (1): 43–61.

24 Allen, D. (2009). From boundary concept to boundary object: the practice and politics of care pathway development. *Social Science and Medicine* **69**: 354–361.

25 Iedema, R., Mesman, J., and Carroll, K. (2013). *Visualising Health Care Practice Improvement: Innovation from within*. London: Radcliffe.

26 NIHR. (2015). PUMAtrial. https://njl-admin.nihr.ac.uk/document/download/2026288 (accessed 12 June 2017).

27 Oakley, A., Strange, V., Bonell, C. et al. (2006). Process evaluation in randomised controlled trials of complex interventions. *BMJ* **332** (7538): 413–416.

28 Pope, C., Halford, S., Turnbull, J. et al. (2013). Using computer decision support systems in NHS emergency and urgent care: ethnographic study using normalisation process theory. *BMC Health Services Research* **13** (111): 1–13.

29 Roth, J. (1963). *Timetables*. NewYork: Bobbs-Merrill.

30 Hughes, D. and Griffiths, L. (1997). 'Ruling in' and 'ruling out': two approaches to the microrationing of health care. *Social Science and Medicine* **44**: 589–599.

31 Atkinson, P. (1995). *Medical Talk and Medical Work*. London: SAGE.

32 Warren, C. and Rasmussen, P. (1977). Sex and gender in field research. *Urban Life* **6**: 349–369.

33 Ostrander, S. (1993). 'Surely you're not just in this to be helpful': access, rapport, and interviews in three studies of elites. *Journal of Contemporary Ethnography* **22** (1): 7–27.

34 Allen, D. (2002). Negotiating the role of expert carers on an adult hospital ward. *Sociology of Health and Illness* **22** (2): 149–171.

35 Holden, J. and Bower, P. (1998). How does misuse of the term 'Hawthorne effect' affect the interpretation of research outcomes? (questions and answers). *Journal of Health Services Research and Policy* **3**: 192.

36 Rosenhan, D.L. (1973). On being sane in insane places. *Science* **179**: 250–258.

37 Hindmarsh, J. and Pilnick, A. (2007). Knowing bodies at work: embodiment and ephemeral teamwork in anaesthesia. *Organization Studies* **28** (09): 1396–1416.

38 Silverman, D. (1989). The child as a social object: Down's Syndrome children in a paediatric cardiology clinic. *Sociology of Health and Illness* **3**: 254–274.

39 Emerson, R., Fretz, R., and Shaw, L. (1995). *Wring Ethnographic Fieldnotes*. Chicago: University of Chicago Press.

40 May, C. and Finch, T. (2009). Implementation, embedding, and integration: an outline of Normalization Process Theory. *Sociology* **43** (3): 535–554.

41 Strauss, A., Schatzman, L., Ehrlich, D. et al. (1963). The hospital and it's negotiated order. In: *The Hospital in Modern Society* (ed. E. Freidson), 147–169. New York: Free Press.

42 Allen, D. (2001). *The Changing Shape of Nursing Practice: The Role of Nurses in the Hospital Division of Labour*. London: Routledge.

43 Van Maanan, J. (1988). *Tales of the Field. On Writing Ethnography*. Chicago: University of Chicago Press.

44 Feldman, M. (1995). *Strategies for Interpreting Qualitative Data*, Qualitative Research Methods, vol. **33**. Newbury Park, CA: SAGE.

45 Vindrola-Padros, C. and Vindrola-Padros, B. (2018). Quick and dirty? A systematic review of the use of rapid ethnographies in healthcare organisation and delivery. *BMJ Quality and Safety* **27**: 321–330.

Further Reading

Hammersley, M. and Atkinson, P. (2007). *Ethnography: Principles in Practice*, 3e. London: Routledge.

Atkinson, P. (2017). *Thinking Ethnographically*. London: SAGE.

7

Documentary Analysis

Martin Gorsky and Alex Mold

Centre for History in Public Health, London School of Hygiene and Tropical Medicine, London, UK

7.1 Introduction

So far, the main concern of this book has been qualitative methods for eliciting data through observation or direct interaction with individuals. This chapter turns to documentary approaches, which researchers may wish to use when interviews or ethnographies are inappropriate or impossible to conduct, or to complement such approaches. We are interested here in different types of documents as primary sources; in other words, as raw data to be collected and analysed. We distinguish these from secondary data sources, meaning the books or peer-reviewed articles that contain findings by other researchers which can be reviewed and synthesised (see Chapter 11 for more on these methods). We will concentrate mostly on printed or written text, but will also consider visual sources.

At the most general level, all qualitative researchers are likely to conduct some primary documentary research at one time or another. Many projects begin with an analysis of the policy context and rationale, perhaps drawing on key reports from a national government or an international agency. However, there are several reasons to go further and treat documents as a main data source. Just as focus groups and interviews give access to the ways individuals understand the world, so too can textual discourses yield insight into how people construct reality. Sometimes, there are particular reasons for prioritising a documentary approach,

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

such as exploring the ‘official’ language promulgated by bureaucrats and politicians. Sometimes, health researchers find themselves in an adversarial position towards their subjects. For example, if studying the health effects of products like tobacco, alcohol, and processed foods, industrialists are unlikely to grant direct access to many important sources of data, so documentary sources may have to be used. Another area where documentary analysis is likely to be important is the study of health communication, where devices like film, posters, or social media convey messages about desired health behaviour. As well as evaluating the responses of target recipients, researchers may wish to analyse the communication media themselves. A final example is historical writing. An understanding of how present actions and configurations have been shaped by past trajectories provides valuable context for much health services research. Although oral history interviews can illuminate the recent past, documentary research informs most histories of health systems, health policy-making, and health care institutions.

7.2 Uses of Documentary Methods

Documentary sources have been important to the quantitative side of health services research since the earliest efforts to gauge the effectiveness and quality of care, using mortality statistics, clinical case notes, and hospital registers [1]. On the qualitative side, initially only histories of health policies and services relied particularly on documentary methods. The history of the UK National Health Service (NHS) attracted much attention, as an archetypal single-payer, hierarchical system, and documentary analyses supported exploration of the politics of its formation, an official history, and more critical policy histories [2–5]. These were founded on the selection and synthesis of Parliamentary reports, papers of the Ministry (later Department) of Health, reports in the press and medical journals, and records of political parties and different interest groups. More broadly, the writers who pioneered the typologies of different national health systems, and their common performance metrics, grounded their readings in historical understandings [6, 7]. Document-based histories of hospital and asylum medicine by the French philosopher Michel Foucault are also well-known for their theoretical claims. Foucault argued that power resides not only in economic and political hierarchies, but also in language, institutions and systems of knowledge [8, 9]. These ideas influenced a critical strand of medical sociology that questioned the apparently benign intent of the clinical encounter.

In contemporary health services research, documentary approaches are increasingly employed, often as part of mixed method studies. We will illustrate the range of such research with characteristic examples. One area of interest in the UK NHS is the policy documents issued by government or health authorities, which are then contrasted with actual practice. For instance, Dixon et al. [10] conducted a documentary review of legislation and policy papers to establish the chains of accountability devised for NHS Foundation Trusts (a type of NHS hospital granted greater autonomy than other NHS hospitals), then interviewed Trust officials to examine whether these were observed. Ocloo et al. [11] conducted a documentary study of the intended powers of Foundation Trust lay governors to influence patient safety, before proceeding to interviews and observation to test their true extent. Similarly, Allen et al. [12] began their case study of NHS service commissioning with a documentary study to determine the regulatory framework and details of tendering of NHS services, then used interviews to discover how collaboration and competition between providers for contracts worked in reality.

In other studies, policy documents are the sole source of data, as in Dickinson et al.'s [13] discourse analysis of material on joint commissioning of services between the NHS and local authority social services. This blended a secondary literature review with consideration of government documents, think-tank papers, and practice-based journal articles, to examine how joint commissioning was specified and understood. Illustrative of adversarial documentary research is McCambridge et al.'s [14] examination of submissions by the alcohol industry to the Scottish Government's consultation on public policy towards alcohol, such as minimum unit pricing. Here, close reading and evaluation based on the scientific literature provided evidence of how vested interests had undermined public health goals.

More formal content analysis of print or visual media can be used to gauge how representations shape attitudes or behaviour. For instance, Miller et al.'s [15] longitudinal study of how nursing homes were portrayed in the American press reviewed over 16 000 articles, showing that their tone and themes influenced the public's negative opinion towards the sector. Meyer et al. [16] similarly analysed the messages of 1246 Canadian news articles about 'flu vaccine, then correlated these with immunisation rates, to show how perceptions of risk and fear of side-effects reduced take-up. The HIV/AIDS crisis prompted renewed interest in the impact of different types of visual media, including posters and television advertising [17]. Analysis of AIDS campaign materials demonstrated that images were not neutral or homogenous, but shaped by specific contexts of time and place, reflecting particular discourses of power [18]. For instance, Johnny and Mitchell's [19] critical study of visual imagery in the UN's World AIDS Campaign decoded its content to discuss how meanings varied with cultural context. They argued that posters intended to evoke sympathy for AIDS patients experiencing stigma and discrimination might, in some settings, be read as enforcing these, if strong cultural norms existed shaming those with sexually transmitted diseases.

The arrival of the internet has signalled the newest field for documentary study, in which researchers not only select individual webpages for analysis, but also employ machine technologies to capture larger quantities of data. A modest example is Shepherd et al.'s [20] investigation of the benefits of social media to mental health service users, which employed a Twitter search engine to select over 500 sources for thematic analysis; more ambitious is Brookes and Baker's [21] subjection of 228,113 patient comments on the NHS Choices website to text-mining software, which parsed positive and negative evaluations to establish the underlying issues. Finally, the search facilities of the Google Books corpus and the PubMed database of journal articles have given discourse analysts new scope to make sense of 'big data' (see Chapter 8 for more on virtual and digital data in qualitative research).

7.3 Sources and Location

Documentary research begins with the location and selection of sources. Contemporary researchers will reasonably expect this to be achievable without leaving the office, for, since the expansion of the World Wide Web in the mid-1990s, it has been the norm for governments and health service institutions to make key documents available on the internet. However, such desk-based searches are unlikely to be comprehensive and are not necessarily suited to historical or longitudinal work. So, what are the main classes of material and where can they be found?

In the non-virtual world, the practice of archiving documents began with the national and local state's need for an official record of law- and policy-making. In the UK, for example, the National Archives was opened in 1838, to collect official publications, such as: laws, reports of commissions of enquiry, proceedings of legislatures, and records of ministries; population statistics like censuses and vital registration; and unpublished papers like the internal memos, letters, and speeches which illuminate policy-makers' motivations and intentions. Local record offices were also formed in each county and major city to collect the archives of local government, and, over time, these broadened their remit; now they may also contain personal records, such as letters, diaries, or memorabilia not originally intended for the public domain, and institutional records, including those of hospitals, medical charities, and NHS regional boards and committees. Some hospital archives are extensive, including committee minutes, financial accounts, records of staff and buildings, patient admission and discharge registers, and clinical case notes.

Many states have also established national libraries, sometimes backed by legal deposit rules applying to all published work from that country. The British Library began in 1753 as a department of the British Museum, and in addition to its vast book and newspaper collections holds a repository of oral history recordings, which give insight into social beliefs and practices. Health researchers draw also on dedicated libraries that specialise in medical texts, journals and artefacts, such as London's Wellcome Library or the US National Library of Medicine in Washington. It is also common for businesses, universities, non-governmental organisations and health services institutions to retain their own records: for example, London's Bethlem and St Bartholomew's hospitals have long-standing documentary archives. Such libraries and institutional archives are also repositories of 'grey literature'; that is printed (and increasingly electronic) documents that are not available through commercial publication or official collections. This includes commissioned reports, working papers, newsletters, bulletins, fact sheets, and conference proceedings. Finally, personal archives comprising family and individual papers may be still in private hands, and, as with some institutional archives, there may not be formal arrangements entitling researchers to gain access.

A migration to digital record-keeping has occurred during the last 20 years. In part, this has involved the digitisation of records which were 'paper-born' so as to allow conservation and wider access. In 2004, Google

Books began its online collection, now thought to contain around 25 million texts, some available in full, others in limited preview or by ‘snippet’ [22]. Many journals are available in digital format, through collections such as JSTOR (‘Journal Storage’), which licences and provides access to over 1400 titles. For health research, there is a free biomedical archive, PubMed Central, which, for example, includes the *British Medical Journal* going back to 1840. It is accessed through the search engine PubMed, which draws on the US National Library of Medicine’s journal citation database, Medline. Successor to the paper *Index Medicus*, begun in 1879 by the US Surgeon General, Medline has computerised details of medical and life sciences articles since the 1960s, often including abstracts. The digitisation of institutional and government archives has been slower, dependent on available funding. Notable collections include the US Census, records of the World Bank and World Health Organisation and the Legacy Tobacco Documents Library, compiling searchable papers of major tobacco companies released under a legal settlement.

The archiving of recent ‘born-digital’ documents is more complex. Not only is the flow of information generated electronically far greater than in the era of print, but institutional websites differ fundamentally from paper predecessors like yearbooks, reports, or newsletters. Their content can change by the day or even the hour, and, once withdrawn by their creator they leave no material presence. Thus, active preservation policies are needed. For example, in Britain, the National Archives has captured government websites at regular intervals, along with selected email correspondence. The British Library’s approach has been both to create bespoke website collections of national interest (such as on the Health and Social Care Act 2012, or the ‘Pandemic influenza’ collection begun following the 2005 Avian flu outbreak,) and to purchase all available ‘.uk’ sites held by the Californian Internet Archive, whose Wayback Machine has periodically trawled the web since 1996 to capture and store over 450 billion pages. At the time of writing, debate about copyright issues still restricts search and access facilities to these.

Researchers should be aware that even before they begin their search, archives will have been subject to selection. Sometimes precious records are lost through disasters – the wartime destruction of Iraq’s national library is a recent example. More prosaically, organisational records are vulnerable to ‘the relentless drive for space economies within the public health sector and the periodic relocation of health facilities’ [23]. Other documents may be destroyed deliberately to conceal misdeeds and shape the historical narrative, as for instance during decolonisation [24, 25]. Official collections must also rationalise the amount they can physically store. Thus, the UK’s National Archives advises government departments to preserve records ‘illustrative of the process of developing government policy and legislation’ and those ‘which illustrate changes of direction’ in its implementation’ [26]. Even if stored, researcher access to certain documents can be prohibited; for example, with restrictions on using patient records or case notes to protect confidentiality. In the UK, despite Freedom of Information laws, policy documents can be ‘redacted’ (i.e. censored) if their availability in full prejudices ‘the effective conduct of public affairs’ by inhibiting ‘free and frank’ discussions [27]. Nor is machine capture of websites necessarily more comprehensive, for creators may insert robot text on their sites to prevent them being trawled. In sum, there may be gaps and silences in any set of records, which are likely to become more acute further back in time.

7.4 Selection, Recording, and Storing

Once the researcher has located the archives they wish to work with, they must then exercise their own selection choices to narrow the sample of documents for study. Prior to primary research, preliminary reading in the secondary literature should help to establish the context of a particular source, the nature of the language through which it presents the social world, and its potential importance. An initial selection decision, in both historical and contemporary studies, concerns the period from which documents are to be drawn. Start and end points need to be specific and coherently justified. A second issue is whether a deductive or inductive approach will be followed: Does the research question proceed from a theory that provides a testable hypothesis? Or is the intention to build theoretical explanation from the sources to address a more general research question? If the former, then a more superficial and quantitative content analysis of, say, a newspaper archive might suffice. If the latter is the intention, then a more detailed and interpretative reading of texts may be preferable. Reflexive awareness of the researcher’s own role in the process also matters. As in all scientific work, researchers must be self-critical of their theoretical assumptions and advocacy positions. In this case, this means asking oneself the question: Does the selection of documents allow a fair and balanced attempt to answer the question at hand?

Documentary data gathering then becomes an iterative process of selection, reading, and capture. The end goal is to create a collection of relevant material for analysis. This may be in the form of typed or handwritten notes which either summarise key points or transcribe extracts verbatim; or of digital photographs taken with a high-quality camera (today, often a mobile phone) which capture larger extracts or whole documents for later reading; or of an extensive scanned corpus of text, suitable for the application of data-mining software. Before reading any new document, it is important to clarify its date, author, origin, and purpose as the first steps in establishing its context and evaluating its significance. Next, a preliminary skim reading will determine whether the document is indeed valuable, and, if so, which elements are potentially useful and which can be discarded. Now the research notes or dataset or digital photographs can be made, ensuring that the full reference of the document is scrupulously recorded, including, if appropriate, its archival catalogue number. When reporting results, detailed and transparent referencing underscores validity, by allowing other researchers to confirm the findings.

If the dataset is large, it will be worth using a software application for organisation and storage. Different free or commercial applications are available, allowing digital photographs, webpages, or text files to be organised, either in a hierarchical filing system or through tagging. Some allow users to share access to chosen sets of records, which is ideal for team projects. Some also have the facility to search collections by key word, both typescript or handwritten, which can be a major asset when searching and retrieving relevant documents (see Chapter 9 for more on qualitative data analysis software).

7.5 Approaches to Analysis

The critical reading of documentary texts that began in a preliminary way in the phases of selection and capture intensifies with the main analytical work. In beginning this process, it is important, in Stacy Carter's words, not to treat documents '... as straightforward nuggets of general truth ... with one quote purporting to prove an expansive contention ... with no source, searching, analysis, or researcher information'. Instead, the researcher's role should be as 'an active constructor' of meaning, treating documents '... as problematic, complex sources of specific information that needed a context to be understood' [28] (p. 373).

In addition to being transparent about methodology and conceptual assumptions, there are various other rules of thumb for interpretative documentary analysis. A first step is to situate the source within the historical or policy context in which it was produced. Who was the author, what was the intended audience, and what were the motives for production? If generated within a business, institution, or bureaucracy, what were the conventions of language and register being followed, and what degree of restraint or self-censorship did these impose? With that in mind, what conclusions can be drawn about the intentions, biases, politics, or ideological agenda of the author? It is important also to distinguish the surface information in the source, that which the author intends the reader to understand, from the 'unwitting' evidence of the author's assumptions about the social world; for example, about gender or class. As the researcher starts to develop an interpretation from one source or group of sources, they then need to check whether other, different documents confirm or refute the emerging explanation. This process can support the development of a comprehensive analysis, or, may be referred to as 'triangulation', suggesting that if multiple methods or independent datasets point towards the same conclusion, the explanation may be considered more plausible.

All these issues of context and intent bear on the relationship between the language of the text and the underlying social reality that it mediates. In thinking about this, some researchers have embraced insights from linguistics and literary theory, to challenge the idea that words are unproblematic signifiers of the external world. Thus, rather than describing social experience, language actually constitutes it by shaping consciousness. Conversation analysis is based on such insights. Its methods to analyse talk are examined in more detail in Chapter 10. Discourse analysis is another method commonly used to explore features of texts and talk in order to examine how linguistic statements structure social understanding, and to consider the interplay between language, power, and ideology [29]. Some scholars proceed from this to a relativist, social constructionist position, arguing, for example, that the labelling and description of diseases does not relate to a fixed biological reality, but instead reflects transitory and contingent perceptions of the medical profession [30]. These are often visible in clinical documents and textbooks.

Visual images too are constructed representations of reality, in which the creator seeks to communicate a specific message, but where multiple interpretations are available, both between viewers and over time and place. Again, critical analysis must attend both to the surface intent of an image and to the different meanings which it encodes. As an example of this process, consider Figure 7.1, a poster produced by the British Health Education Council, probably in the late 1970s, to encourage parents to have their children vaccinated against common childhood diseases. Research into the historical context reveals that there had been a recent scare over the safety of the pertussis (whooping cough) vaccine and immunisation rates had dropped. On the surface, the visual depiction of a

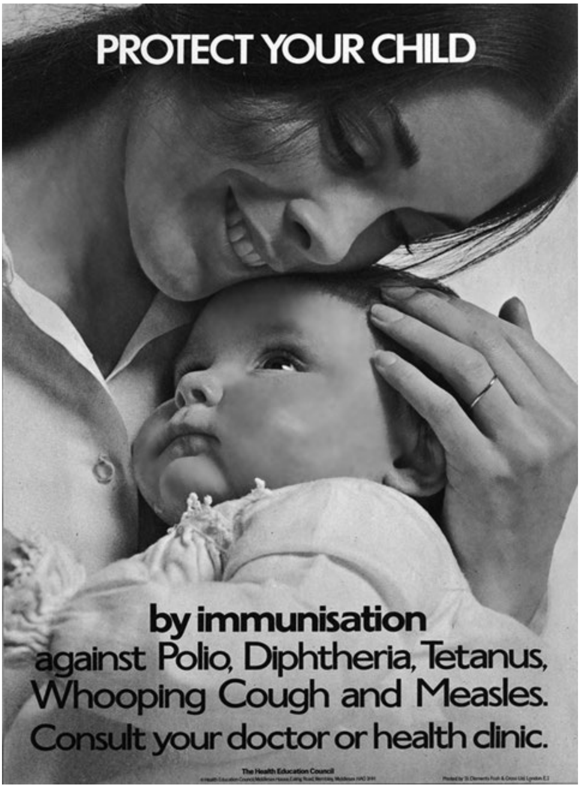

Figure 7.1 'Protect your child by immunisation' Health Education Council, c. 1970s–1980s.

smiling mother and baby is reinforced by text encouraging mothers to 'protect your child' by immunisation. Although the poster is a photograph, it has been carefully composed using richly symbolic imagery. Both the mother and baby are dressed in white, connoting purity, and the mother wears a wedding ring to signify that the child is born in wedlock. The pose is also reminiscent of the Biblical Madonna with the child, perhaps the ultimate representation of maternal love. Consciously or not, the representation taps into feelings of maternal affection and duty, or perhaps guilt. At the level of 'unwitting' evidence about the creator's assumptions, it is notable that the target viewers are young mothers, not fathers. Thus, just like a printed text, a visual image can both reflect and enforce a particular construction of social reality, in this case notions of gender relations and the allocation of childcare responsibilities.

Finally, with the ongoing digitisation of documents, text analytics software is increasingly used for both interpretative and content analysis. These include applications like Google Ngrams, or Word Cloud generators which measure and display the frequency of words or phrases, as well as more sophisticated data-mining tools which can detect patterns in the use of words and terms. Some of these can be freely obtained, though commercial packages tend to have greater functionality. Such software can detect co-occurrence of groups of words, and thus automatically identify key concepts and subsidiary themes running through a text or corpus, which can then be represented diagrammatically. Also, drawing on the marketing technique of 'sentiment analysis', researchers can quantify and assess the values attached to a particular concept. Here, the boundaries between qualitative and quantitative research begin to blur, as machine-generated analysis supersedes the individual reader's discernment. Its ruthless objectivity prevents researchers cherry-picking data to suit their hypotheses, and it is likely to become more widespread as the technology diffuses (see Chapter 8 for more on this).

7.6 Conclusion

Documentary research skills are essential for historians of medicine and health, but are also important in the contemporary researcher's repertoire of qualitative and mixed methods. Primary textual sources should always be approached with critical awareness. The conditions of archiving and preservation mean that selection effects are always present even before the researcher begins their search for material. Systematic choices about selection and researcher reflexivity matter in the data-gathering phase. Analysis should be interpretative, alert to context, language, and meaning, and cautious about drawing large conclusions without corroboration. At present, the transition of documentary records from paper to digital storage means that research settings and methods are in flux. Alongside challenges to archiving and retrieval, for example due to the sheer volume of data, lies the promise of data-mining tools that are likely to complement, if not displace, close textual reading by qualitative researchers.

References

1 White, K. (ed.) (1992). *Health Services Research: An Anthology*. Washington, D.C.: Pan American Health Organization.

2 Eckstein, H. (1959). *The English Health Service*. Cambridge, M.A.: Harvard University Press.

3 Webster, C. (1988). *The Health Services since the War, Vol. 1, Problems of Health Care: The National Health Service before 1957*. London: HMSO.

4 Klein, R. (2006). *The New Politics of the NHS: From Creation to Reinvention*. Oxford: Radcliffe Publishing.

5 Webster, C. (2002). *The National Health Service: A Political History*. Oxford: Oxford University Press.

6 Anderson, O.W. (1972). *Health Care: Can there Be Equity? The United States, Sweden, and England*. New York: Wiley.

7 Roemer, M. (1976). *Health Care Systems in Historical Perspective*. Ann Arbor MI: Health Administration Press.

8 Foucault, M. (1975). *The Birth of the Clinic: An Archaeology of Medical Perception*. New York: Vintage.

9 Foucault, M. (1993). *Madness and Civilization: A History of Insanity in the Age of Reason*. London: Routledge.

10 Dixon, A., Storey, J., and Alvarez Rosete, A. (2010). Accountability of foundation trusts in the English NHS: views of directors and governors. *Journal of Health Services Research and Policy* **15**: 82–89.

11 Ocloo, J., O'Shea, A., and Fulop, N. (2014). Empowerment or rhetoric? Investigating the role of NHS foundation trust governors in the governance of patient safety. *Health Policy* **111**: 301–310.

12 Allen, P., Osipovič, D., Shepherd, E. et al. (2017). Commissioning through competition and cooperation in the English NHS under the Health and Social Care Act 2012: evidence from a qualitative study of four clinical commissioning groups. *BMJ Open* **7**: e011745.

13 Dickinson, H., Glasby, J., Nicholds, A., and Sullivan, H. (2013). Making sense of joint commissioning: three discourses of prevention, empowerment and efficiency. *BMC Health Services Research* **13** (Suppl 1): S6.

14 McCambridge, J., Hawkins, B., and Holden, C. (2013). Industry use of evidence to influence alcohol policy: a case study of submissions to the 2008 Scottish government consultation. *PLoS Med* **10** (4): e1001431.

15 Miller, E., Livingstone, I., and Ronneberg, C. (2017). Media portrayal of the nursing homes sector: a longitudinal analysis of 51 U.S. newspapers. *Gerontologist* **57**: 487–500.

16 Meyer, S., Lu, S., Hoffman-Goetz, L. et al. (2016). A content analysis of newspaper coverage of the seasonal flu vaccine in Ontario, Canada, October 2001 to March 2011. *Journal of Health Communication* **21**: 1088–1097.

17 Miller, D., Kitzinger, J., Williams, K., and Beharrell, P. (eds.) (1998). *The Circuit of Mass Communication: Media Strategies, Representation and Audience Reception in the AIDS Crisis*. London: SAGE.

18 Cooter, S.C. (2007). Coming in to focus: posters, power and visual culture in the history of medicine. *Medizinhistorisches Journal* **42**: 180–209.

19 Johnny, L. and Mitchell, C. (2006). "Live and let live": an analysis of HIV/AIDS-related stigma and discrimination in international campaign posters. *Journal of Health Communication* **11**: 755–767.

20 Shepherd, A., Sanders, C., Doyle, M., and Shaw, J. (2015). Using social media for support and feedback by mental health service users: thematic analysis of a twitter conversation. *BMC Psychiatry* **15**: 29.

21 Brookes, G. and Baker, P. (2017). What does patient feedback reveal about the NHS? A mixed methods study of comments posted to the NHS choices online service. *BMJ Open* **7**: e013821.

22 Heyman S. Google Books: A complex and controversial experiment. *New York Times* (2015).

23 Melling, J. (2001). A healthy future for medical records? A view from South-West England. *Health Information and Libraries Journal* **18** (3): 162–164.

24 Elkins, C. (2015). Looking beyond Mau Mau: archiving violence in the era of decolonization. *American Historical Review* **120**: 852–868.

25 Sato, S. (2017). “Operation legacy”: Britain’s destruction and concealment of colonial records worldwide. *The Journal of Imperial and Commonwealth History* **45** (4): 697–719.

26 National Archives. Records collection policy. November 2012. Crown Copyright; 2012 p. 5 www.nationalarchives.gov.uk/documents/records-collection-policy-2012.pdf (accessed 22 April 2019).

27 Information Commissioner’s Office. The Guide to Freedom of Information. 2016. p. 45 www.legislation.gov.uk/ukpga/2000/36/pdfs/ukpgaod_20000036_en.pdf (accessed 13 April 2019).

28 Carter, S. (2005). Tobacco document research reporting. *Tobacco Control* **14**: 368–376.

29 Lupton, D. (1992). Discourse analysis: a new methodology for understanding the ideologies of health and illness. *Australian Journal of Public Health* **16**: 145–150.

30 Armstrong, D. (2014). Chronic illness: a revisionist account. *Sociology of Health and Illness* **36**: 15–27.

Further Reading

Prior, L. (2003). *Using Documents in Social Research*. London: SAGE.

8

Digital Data and Online Qualitative Research

John Powell and Michelle H. van Velthoven

Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

8.1 Introduction

The tools, practices, processes, and culture of the internet age are having profound effects on all aspects of our lives including how we manage our health and interact with health services, and how we conduct research. Whilst the internet has its technical origins in the 1970s, it only began to have an impact on wider society following the development of the World Wide Web in the early 1990s, and arguably the biggest social changes have occurred more recently with the advent of web technologies that offer opportunities for everyday users to be producers as well as consumers of content. This is seen in the phenomenal growth of online social media (Facebook was launched in 2004, Twitter in 2006), and is fuelled by the availability of cheap broadband connections and the widespread adoption of smartphones, following the launch of the first iPhone in 2007. The internet is no longer simply a network of connected computers, but a tool, a place, and a way of being. In the UK, three-quarters of all adults have a social media account of some kind and this figure rises to more than 95% for the 16–24 year old age group [1]. Surveys show that 70–80% of UK adults own a smartphone [1, 2] and smartphones are now the preferred method of going online. Increasingly, the internet is less visible but more important, since it is now embedded in everyday objects as the technology has become cheaper, smaller, wearable, or implantable. The digital native

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

generation expects shopping, gaming, business communications, and interactions with each other to all be online. This digital revolution is a topic of study in its own right and this is not a chapter about the sociology of the internet, although the approaches described here may be helpful in understanding the impact of this online world on our social lives. This chapter will focus on how qualitative health researchers can harness internet-mediated research to elicit new data, or to capture existing data present in online spaces, and the benefits and challenges of this.

8.2 Types of Digital and Virtual Data

Digital qualitative data comprise the text, pictures, and 'meta-data' (such as information about the source, author/creator, and date of creation). In general, internet-mediated qualitative research can be divided into two approaches: those which conceptualise the internet as a social space where data can be found; and those which harness the internet as a tool with which to collect data. The first approach captures data that are already present in the online setting, such as material found in blogs, forums, social media postings, and feedback sites, which may be text-based or in some other medium such as picture or video, or may be multimedia. The nature of the internet means the amount of data available to study in these settings can be very large, which in itself is an interesting challenge for qualitative researchers. The online settings may be public (accessible to anyone) or private (with access limited to permitted individuals), although, as will be discussed below, this distinction can be blurred, especially in the case of social media. These data have been described as 'extant', 'non-reactive', and 'naturally occurring', as well as data which are available 'unobtrusively' [3, 4]. Others have described the collection of these data as 'secondary analysis' but this term risks confusion with (offline) secondary analysis of previously collected qualitative research data [5]. Approaches to data existing on the internet include various types of content analysis and virtual ethnography, which will be discussed later. The second broad category of data are those that are newly elicited through use of online tools. These include text, audio, or video interviews, or broader group discussions, which may be collected synchronously in real time (as through instant messaging or Skype) or asynchronously (as through email questions, or by posting requests in forums and gathering later responses), or some combination (as in a ‘Tweet-chat’ using Twitter to generate discussion which may allow for both synchronous interaction and later asynchronous contributions). Salmons [6] also describes a third category of ‘enacted’ online data which are co-constructed online by the participant and the researcher during the process of research. We see this as a subcategory of elicited data, where the co-creation approach is a form of elicitation. Approaches to data *elicited through* the internet will generally have strong parallels with offline approaches such as interviews and focus groups discussed elsewhere in the book (see Chapters 4 and 5), although we will discuss specific issues related to their online use below.

8.3 Who Goes Online? The Have-Nets and the Have-Nots

It is important for qualitative researchers to understand that internet use, and the tools which relate to it – such as apps, social media, blogs, forums, etc. – is not universal, and varies by socio-demographic and other factors. In general, the online population is younger, more educated, and with a higher income than the offline population. Statistics for the UK show that in 2017, 99% of the 16–34 age group was online, whilst the figure for those aged over 75 was 41%, although there is increasing use amongst older age groups. These data also showed that 9% of the UK adult population had never been online, and this rose to 22% for disabled adults [3]. These potential biases in the uptake and usage of the internet must be considered in any internet-mediated research project. Once online, people do not all use the internet in the same way. Whilst internet usage overall is very slightly higher amongst men, women are more likely than men to undertake social activities online, including using social media, instant messaging, or writing reviews. Women are also more likely than men to undertake activities related to health online. Of key importance to qualitative researchers seeking to use existing data found in online settings is an understanding of who those who contribute content are. Of the people who use social media, whilst 78% have posted comments or shared images or video content, only 24% have done so in ‘public groups’. Similarly, whilst 77% of internet users read online reviews, only 40% have ever written one. All of this has implications for qualitative researchers in terms of how they interpret the data they collect, especially if collected from online ‘public’ settings. Researchers seeking to harness the online environment in academic studies must have an understanding of who goes online, and what they do there. Importantly, they should also consider the particular characteristics of the online environment, summarised in Box 8.1.

8.4 Using Existing Online Data for Qualitative Health Research

Data can be found in various forms in both public and private online spaces. It can consist of extensive narrative personal accounts, or very brief exchanges. It may be anonymous to a greater or lesser degree, and participants may or may not choose to perform a self-identity that is the same as their offline identity. Data may come with metadata such as a time stamp or a geotag which can give more information about where and when the content was created. Whilst some form of text-based analysis is probably most familiar for qualitative researchers, internet-mediated research also offers the opportunity to analyse images, videos, and other media, and combinations of these, contained, for example, on personal webpages or within social media profiles. For example, Mazanderani and colleagues undertook a thematic content analysis of 100 YouTube videos to explore the issue of online patient advocacy [7]. Personal profiles also provide the opportunity to know more about the people producing content, and potentially their friends, followers, or contacts, and this also opens the possibility for researchers to analyse connections as well as content; for example, using social network analysis.

Much of the research using existing online sources has tended to capture text-based contributions from online communities of some kind – which may, for example, be a web-based forum, or an instant messaging group, or an online network of social media users – and analyse these postings and interactions between participants. However, whilst sampling existing online data is generally very easy, and the convenience, speed, and low cost is attractive to researchers, these practical benefits should not override other considerations. As with all qualitative work, researchers need to select data informed by their ontological and

Box 8.1 Characteristics of the Online Environment Relevant to Undertaking Qualitative Health Research

- *Flexibility of time, place and person.* Communication can be synchronous or asynchronous, instantaneous, or separated by minutes or years. Geographical location is unimportant and not always apparent. Personal identity may mirror the offline world, or a different identity, or multiple identities, may be performed.
- *Interactive and interconnected.* People can be both consumers and producers of content. They can interact with other humans one to one, or with many others, or they can interact with algorithms. Online text and tools frequently link to others, creating connections.
- *Archived and searchable.* Online content is generally stored on remote servers and rarely deleted. It is also captured in caches and online archives. Users leave artefacts and online footprints. Content is searchable and often there is a very large amount of data, some of which may be linked between different sources.
- *Accessible and mutual.* There are few barriers to entry to the online world, although access is still not universal, and more confident ability and frequent use are more common in those who are younger and better educated. Many of the power relations of the offline world are absent, but whilst mostly democratising, not everyone has an equal voice in every online setting.
- *Public and private are blurred.* In the online world, public and private form a continuum, where data ownership is often unclear and where privacy – for example, in social media – is subject to abstruse and rarely read terms and conditions. The act of use may be private, but content may be posted in a public forum, or may be posted privately but later become public. Access given to 'friends' may extend to a wider network through other connections. The expectation of privacy should be taken into account, but is also likely to be moderated by the sensitivity of information and the degree of anonymity.
- *Technology-dependent.* Digital technology can be hugely enabling, allowing people to go online from any place, any time, using a multitude of devices, often simultaneously. At the same time, this dependency on the technology means that online behaviour is vulnerable to disruptions of internet connections and failures of computer hardware or software.

epistemological perspectives. Studies of existing online content have sometimes been termed 'virtual ethnography', although the degree of immersion in the field that occurs (rather than just identifying and downloading online content for thematic analysis) varies (and has been caricatured as 'smash-and-grab ethnography' when too superficial) [8]. 'Virtual ethnography' should be reserved for studies where the researcher becomes embedded as a participant in the online setting, perhaps as a user (or participant observer) of a specific health forum, usually over a substantial period of time.

As with offline groups, normative social influence is important in online communities, which often develop their own 'character'. Researchers need to be mindful when choosing which data to sample that only certain views may be expressed in any one setting, whilst alternate views may be explicitly or implicitly discouraged. For example, in a study of an online diabetes forum, Armstrong and colleagues showed how, over time, certain information and certain users were constructed as being more authoritative and reliable, and therefore these users and this information came to predominate [9]. A particular feature of online communication has been its impact on the conventions of written communication, and many online exchanges, particularly using instant messaging, tend to be brief, sometimes with frequent use of acronyms. Researchers will benefit from an initial period of familiarisation with the online setting they are studying prior to fieldwork, in order to understand the particular linguistic and stylistic conventions.

There are other practical considerations for researchers related to how to harvest and store the data. This is an important consideration as online data sources can change and disappear, and the researcher needs to capture the dataset and retain it for analysis. The approach to this will vary depending on the nature of the data. For example, postings in an online forum can often simply be downloaded to a text file or spreadsheet, but YouTube videos or review comments on a rating site might have to be individually identified and saved. Researchers may choose to extract data taking advantage of websites with public API (application programming interfaces), which allow a web-scraping computer program to be used to collect and extract (often large quantities of) data from websites and social media.

The choice of analytic approach to online data will depend on theoretical perspective and disciplinary background. Once the nature of fieldwork has been defined, and the data identified and captured, approaches including various forms of thematic, conversation, and discourse analysis, can be used. These are not described further here as they are covered in Chapters 9 and 10. Online data, once identified and captured, do not require substantially different analytic techniques.

8.5 Eliciting Qualitative Data Using Online Methods

Internet-mediated research can elicit data synchronously or asynchronously. Synchronous approaches are similar to offline interviews and focus groups, but harnessing the internet as a communication tool. Interviews can take place using text in an instant messaging program, or can use audio and video with, for example, a program like Skype (known as a Voice over Internet Protocol or VoIP program). Some researchers have used avatars in virtual worlds to interact with participants' avatars [10]. Asynchronous approaches use the same tools, plus email, as instant responses are not required. The advantages of using the internet to elicit data from participants are that it is cheap, fast, widely accessible, easily recordable, allows participation irrespective of geographic location, reduces the burden on both researchers and participants to be in the same place at the same time, is a very familiar medium for an increasing number of people, and may be particularly helpful for embarrassing or stigmatised issues where participants may want a level of anonymity. Certain tools and environments (for example, email, instant messaging, or virtual gaming worlds) may be more useful for certain populations, and will also offer different benefits in terms of the ways in which they are commonly used (for example, the customary speed and length of interaction). Researchers and participants can also co-create narrative blogs, or social media video content through certain tools.

Alongside these opportunities, there are challenges for researchers – and not only technical ones, though these should not be underestimated given the dependence on the reliability of the technology. Aside from technical glitches, how do you establish rapport with a remote participant such that they are likely to give genuine and useful responses? How do you know they are concentrating on providing their responses and not occupied with some other online distraction? Do the benefits of this approach outweigh the loss of in-person, face-to-face contact, such as the ability to pick up non-verbal cues and understand more about the person's local environment? To what extent can you be sure of the identity of the research participant(s)? Whilst personal identity can be performed in different ways offline, the online environment offers much more opportunity for flexibility in how characteristics such as age, ethnicity, and gender may be presented. Researchers need to consider the extent to which identity verification is important in their projects. There may be benefits in allowing participation to be completely anonymous, perhaps for stigmatising health conditions or topics such as illicit drug use, but this benefit may need to be traded against the possibility of participants using false identities. Researchers also need to consider whether they should facilitate anonymity by providing participants with logins and passwords for the technology being used (whether instant messaging or some other approach), so that they do not use their personal accounts. Similarly, although researchers will need to provide some information on their own identity, they will generally find it beneficial to create a specific account for the data collection on a project rather than use a personal one.

8.6 Big Data and Digital Qualitative Research

We now live in an era of 'big data', where health researchers from across the disciplinary spectrum are seeking to harness the mass quantities of information produced by, and about, people and their interactions. The potential to use these data to better understand people's interactions with their own health, and with health services, is huge. The data from shopping loyalty cards, for example, means that major supermarkets arguably know more about population health than the health service does, having detailed information on diet, tobacco and alcohol consumption, and use of non-prescribed medicines, etc. There is then the added value that can be obtained by linking such data with other information from the same individual, perhaps related to their mobile phone or social media usage (thereby giving an understanding of people's social lives and social networks), or physical activity trackers, or their use of online health information or health forums. Much of the academic interest here is from the quantitative research community, but there are also opportunities for qualitative researchers seeking meaning from large social datasets. In particular, qualitative researchers have begun to harness text-mining techniques, using computational linguistic approaches such as sentiment analysis. In sentiment analysis, a computer program identifies words and phrases contained within large text-based datasets and, as well as counting the occurrences of these, can also map relationships between clusters of words and phrases and classify emotional states. Generally, such an approach involves an initial training stage whereby a researcher codes a sample of the data, and this is then input to the computer program such that it recognises the words and combinations of them. The entire sample is then analysed by the computer, often using artificial intelligence and machine learning techniques, to refine the classifiers used in the initial training dataset. This type of approach can identify the distribution of attitudinal or emotional content in a large dataset, such as the content of an online forum or social media messages, by identifying specific words and phrases and incorporating other factors such as the proximity between words. The advantage of this automated classification is that it can quickly analyse vast quantities of text; the disadvantage is that due to the complexities of language, the results are often relatively crude compared with person-led thematic coding – for example, only identifying whether attitudes are positive, negative, or neutral – bringing into question whether this is truly a qualitative approach. It is perhaps better conceptualised as a hybrid approach using initial qualitative coding to then gain broad-brush insights from a large dataset. An example study of 40 000 messages from 14 online health forums showed that posts about mental health (e.g. depression, schizophrenia) and Alzheimer's disease tended to be emotional posts, whilst informational posts were associated with non-terminal physical conditions (e.g. irritable bowel syndrome, diabetes, asthma) [11].

8.7 Ethics of Using Digital Data and Conducting Online Research

New media do not require new research ethics. The fundamental ethical principles of health research, including autonomy, non-maleficence, beneficence, and justice [12], apply to online research just as they do to offline research (see Chapter 3 for a more detailed discussion of research ethics in qualitative research). However, online data do throw up particular challenges in how to apply existing ethical frameworks (see Hewson et al. [13], British Sociological Association guidelines [14], and Markham and Buchanan [15]). The issues we highlight here relate to informed consent, privacy, anonymity, and confidentiality.

Eliciting data offline from research participants requires a face-to-face process, with a written (signed) consent. Researchers using online data will need to satisfy themselves that obtaining consent remotely (for example, through email or a web form) is sufficient to meet the usual requirements of informed consent. Can you be sure that the participant has fully understood the implications of taking part, and, given that the only contact may be online, can you be confident that their consent is maintained and that they will contact you if they later change their mind and choose to withdraw from the study? The researcher also needs to be clear about the identity of the person giving consent. As discussed above, online identity can be fluid, and the internet can offer anonymity, but identity verification is important in the consent process to avoid inadvertently including vulnerable groups who were not intended to be participants (such as children), as well as supporting research validity.

The issue of consent is more complicated for those using existing online data such as found in an online forum. Ethical debates in this circumstance generally focus on the nature of public and private spaces, and the fact that online there is not a simple public/private dichotomy, but a continuum. People may use their device in a private setting, but the content they create may be in a public forum, or may be in what they consider to be a private space but one which others can access through a username and password. Sometimes online private content can become public at a later stage, or can be archived to a publicly accessible version by a search engine, or copied and then placed in a more public setting by another user. There is also the wider issue of data ownership and the terms and conditions of the companies which host content, although most users do not read these. The consensus in ethical guidelines is that the *expectation* and *perception* of privacy are important for the researcher to consider. If the participant had a reasonable expectation that their content would be private, then the researcher should treat it as such, and therefore seek explicit prior consent for its use. This consideration of privacy should also take into account the sensitivity of the issue in question and the vulnerability of the user, as well as the likelihood that others (who are not participants) may also be identified (for example, in analyses of online images or videos). Consent may not be required if the data are publicly available and provided no foreseeable harm could come from its use in a research study. It may also be impractical when studying existing data that have been present in a public online setting for some time, especially if posted anonymously. When studying an online community in a prospective way, researchers should seek permission from the community owners or moderators (if available) and should indicate to participants that they are being studied, perhaps through a community message, as this provides them with the opportunity to opt out of the study, even if this is a public setting where individual consent is not being taken. This brings us to the issue of ‘lurking’ in online settings, which is much easier to do than offline, and whether the researcher should always reveal their presence. Generally, it will be good practice to be transparent about this, but there may be circumstances where data collection requires unobtrusive observation in a covert way – so that the environment under study does not change due to the known presence of a researcher – provided the fundamental ethical principles of research are maintained under the scrutiny of a research ethics committee [16].

A further related issue is that of participant anonymity. Whilst one of the advantages of the online world is that it can offer relative anonymity, the nature of the internet means that this can be threatened. The digital footprints that people leave can threaten anonymity by allowing others to build up a picture of their online behaviour. Data from one site may link to identifiable profiles such as an email address, or indirectly reveal identity through a unique pattern of online connections, or via tools which can reveal location. Sometimes people choose to use the same pseudonym (username) in different online settings, perhaps in forums for their different interests, or for different social media profiles. Identifying information can also be revealed through the content of written postings or images or videos (even if posted anonymously). A key issue for qualitative researchers wishing to quote online content whilst preserving confidentiality is the searchability of the internet, which means that direct quotes, and their sources, can often be identified at a later date. As a result, much care needs to be taken when using quotes in publications. For this reason, we advise against using direct quotes from online content unless explicit participant consent has been given for doing so or the content being quoted is unequivocally in a setting that would be expected to be public and does not relate to a personally sensitive issue.

8.8 Conclusions

Digital data and online qualitative research offer huge opportunities to researchers to understand our emerging digital lives as we become ever more connected through multiple devices in active and passive ways. This includes our health and interactions with health services. The internet is both a social space where rich data can be found in multiple media, and a tool for eliciting new data from participants. The convenience of using existing data is seductive, but researchers must understand that such data have limitations and methodological convenience should not outweigh theoretical sampling considerations. Researchers also need to be mindful of the specific ethical considerations related to the online environment.

References

1 OFCOM. Adults' media use and attitudes. 2017. Research document. June 2017. Available at: https://www.ofcom.org.uk/__data/assets/pdf_file/0020/102755/adults-media-use-attitudes-2017.pdf (accessed 13 April 2019).

2 Deloitte. There's no place like phone. Global mobile consumer survey. 2016. Published 2016. Available at: http://www.deloitte.co.uk/mobileuk2016/ (accessed 18 July 2019).

3 Office of National Statistics (ONS). Statistical bulletin: Internet users in the UK: 2017. 2017. Available at: https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2017/pdf (accessed 13 April 2019).

4 Hine, C. (2011). Internet research and unobtrusive methods. *Social Research Update* **1** (61) http://sru.soc.surrey.ac.uk/SRU61.pdf (accessed 13 April 2019).

5 Heaton, J. Secondary analysis of qualitative data: an overview. *Historical Social Research* **33** (3): 33–45.

6 Salmons, J. (2016). *Doing Qualitative Research Online*. London: SAGE.

7 Mazanderani, F.H., O'Neill, B., and Powell, J. (2013). "People power" or "pester power"? YouTube as a forum for the generation of evidence and patient advocacy. *Patient Education and Counseling* **93** (3): 420–425.

8 Fielding, N. (2016). Ethnography. In: *Researching Social Life*, 4e (eds. N. Gilbert and P. Stoneman), 319–338. London: SAGE.

9 Armstrong, N., Koteyko, N., and Powell, J. (2012). "Oh dear, should I really be saying that on here?" issues of identity and authority in an online diabetes community. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine* **16** (4): 347–365.

10 McElhinney, E., Cheater, F.M., and Kidd, L. (2014). Undertaking qualitative health research in social virtual worlds. *Journal of Advanced Nursing* **70** (6): 1267–1275.

11 Deetjen, U. and Powell, J. (2016). Informational and emotional elements in online support groups: a Bayesian approach to large-scale content analysis. *Journal of the American Medical Informatics Association*; pii: ocv190. doi:https://doi.org/10.1093/jamia/ocv190.

12 Gillon, R. (1994). Medical ethics: four principles plus attention to scope. *BMJ* **309** (6948): 184.

13 Hewson C., Buchanan T. eds and the British Psychological Society (BPS) Working Party on Internet-mediated research. Ethics guidelines for internet-mediated research. INF206/04.2017. 2017. Available at: https://www.bps.org.uk/news-and-policy/ethics-guidelines-internet-mediated-research-2017 (accessed 13 April 2019).

14 British Sociological Society (BSA). Ethics guidelines and collated resources for digital research. Statement of ethical practice annexe. 2017. Available at: https:www.britsoc.co.uk/media/24309/bsa_statement_of_ethical_practice_annexe.pdf (accessed 13 April 2019).

15 Markham A, Buchanan E. Ethical decision-making and internet research: Recommendations from the AoIR ethics working committee (version 2.0). Association of Internet Researchers. 2012. Available at: https://aoir.org/reports/ethics2.pdf (accessed 13 April 2019).

16 Eynon, R., Fry, J., and Schroeder, R. (2016). The ethics of internet research. In: *The SAGE Handbook of Online Research Methods*, 2e (eds. N. Fielding, R. Lee and G. Blank), 19–37. London: SAGE.

Further Reading

Markham, A. and Stavrova, S. (2016). Internet/digital research. In: *Qualitative Research*, 4e (ed. D. Silverman), 229–244. London: SAGE.

Hine, C. (2016). The internet and research methods. In: *Researching Social Life*, 4e (eds. N. Gilbert and P. Stoneman), 339–355. London: SAGE.

9

Analysis

Catherine Pope[1], Sue Ziebland[1], and Nicholas Mays[2]

[1] *Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK*
[2] *Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK*

9.1 The Nature and Scale of Qualitative Data

There is a widely held perception that qualitative research is small scale. As it tends to involve smaller numbers of subjects or settings than quantitative research, it is assumed, incorrectly, that it generates fewer data than quantitative research. In fact, qualitative research can produce vast amounts of data. As Chapters 4–8 have suggested, a range of different types of data may be collected during a qualitative study. These may include observational notes, interview and focus group transcripts, and documentary material, as well as the researcher's own records of emerging research puzzles, ongoing analytical and explanatory ideas, and the field diary, which provides a chronology of the events witnessed and the progress of the research. Each of these different types of data can be substantial. A transcript of a single qualitative interview generates anything between 20 and 40 single-spaced pages of text, and it does not take long for fieldnotes and documentary materials related to observations of one or two settings to become unwieldy, even when stored digitally.

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

9.2 Data Preparation

Verbatim notes or audio/video tapes of face-to-face interviews or focus groups are transcribed to provide a record of what was said. The preparation of transcribed material will depend on the level of analysis being undertaken, but even if only sections of the data are intended for analysis, the preservation of the original tapes or documents is recommended, at least whilst the data are being worked on. Transcribing is time consuming. Each hour of material can take six or seven hours to transcribe depending on the quality of the tape and the depth of information required. For this reason, many researchers outsource transcription to commercial services. The confidentiality and protection of the data during the transcription process needs to ensured and is likely to be required by the research ethics committee (see Chapter 3). Even when using professional transcription services, the researcher needs to carefully check each transcript against the original recording, and this too can be a lengthy process. Supplying the transcriber with a list of terms that are likely to appear in the tapes will be helpful, as will examples of the style of transcription you prefer. If you plan to use one of the qualitative analysis software packages (see below) for analysing the data, it is advisable to check whether formatting, including line numbers and different fonts, will be preserved when the original file is entered into the program. This might influence decisions, such as how to denote different speakers when transcribing interviews.

Conversation analysis of audio-taped material requires even more detailed annotation of a wide range of features of the talk studied in the transcripts. Some of the conventions for annotating transcripts for this purpose are described in Chapter 10. Even when the research is not concerned with analysing talk in this depth, it is still important that the data provide an accurate record of what was said and done. The contribution of sighs, laughs, and lengthy pauses should not be underestimated when analysing talk, and, as a minimum, these should be noted in the transcription. Transcription can be thought of as a research act because the level and detail of the transcription affects the type of analysis that can be undertaken. Consider, for example, how the inclusion or exclusion of instances of repetition, ‘ums’ and ‘ers’, and the record and timing of laughter, crying, or pauses can affect the interpretation of speech [1].

Interview transcripts are not the only data used in qualitative analysis. Researchers often use field diaries, recorded on paper or as digital audio files, to make notes during fieldwork or after an interview. This can be a good way to capture immediate impressions and thoughts, and to reflect on how well data collection has gone. Notes made during or immediately after the observational work are turned into detailed descriptive accounts of the hours spent watching, listening and taking part in events, interactions and conversations. This writing or audio-recording process typically requires an extended block of time, ideally away from the research setting, but as close as possible to the time when the observation was done.

Whether using interviews or observation, the maintenance of meticulous records is vital – these are the raw research data. National qualitative data archives in Britain [2] and the online archives of illness narratives produced by qualitative projects such as healthtalk (http://www.healthtalk.org) and other members of the international collaboration www.dipexinternational.org have made secondary analysis of qualitative data easier and more popular. If data are to be archived for secondary research, it is important that the records of qualitative studies are sufficient to guide future analysts [3]. This includes storing the data in ways that facilitate retrieval and understanding how they were collected. Simple techniques like standardised file formats and layouts, along with clear file labelling, enable speedy access to data. It is also worth keeping a record of the different types of data collected and their location in the filing or archiving system used.

9.3 The Relationship Between Data and Analysis

Transcripts and fieldnotes provide a descriptive record, but they cannot in themselves provide explanations. The researcher has to make sense of the data by sifting and interpreting them. In most qualitative research, the analytical process begins during the data collection phase as the data already gathered are analysed and feed into, or shape, the ongoing data collection. This sequential [4] or interim analysis [5] (see Figure 9.1) allows the researcher continuously to check and interpret the data she/he is collecting and to develop hypotheses for subsequent investigation in further data collection. Compared with quantitative methods, this has

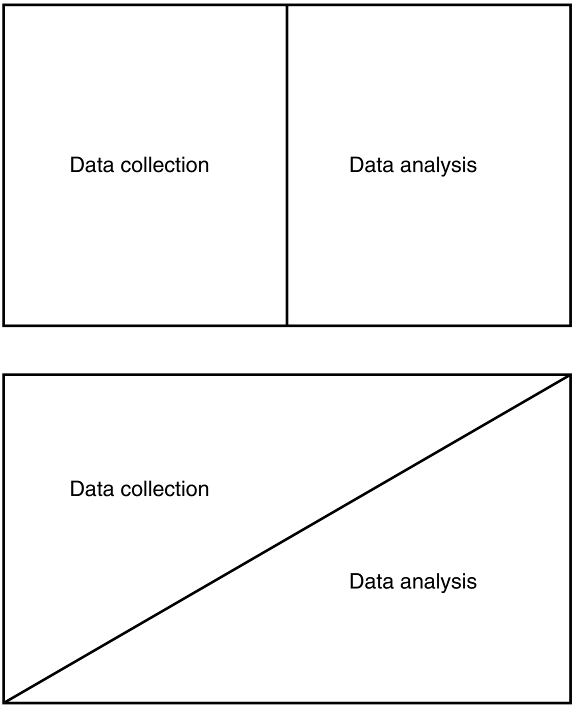

Figure 9.1 Models of the research process.

the advantage of allowing the researcher to refine questions and to pursue emerging avenues of inquiry in further depth. Crucially, it also enables the researcher to seek out deviant or negative cases; that is, examples of talk or events that run counter to the emerging propositions or hypotheses, in order to refine the argument and interpretation. This type of analysis is almost inevitable in qualitative research; because the researcher is 'in the field' collecting the data, it is impossible not to start thinking about what is being heard and seen from the start.

9.4 Counting and Qualitative Data

Textual data can be analysed quantitatively. Quantitative content analysis applies an unambiguous, predefined coding system to text and produces counts or frequencies that may be tabulated and analysed using standard statistical techniques. This approach is often used in media and mass communications studies. Tools such as Comparative Keyword Analysis (CKA), developed for socio-linguistics research, can enumerate high-level patterns in qualitative datasets, highlighting the frequency of use of specific words or phrases. Seale and Charteris-Black used this approach to compare participants' language in interviews with men and women who were matched for age, health issues, and other socio-demographic data [6]. The authors describe the CKA method as providing an initial 'aerial view' which can be followed by more detailed qualitative analysis:

> Disambiguation of a range of possible meanings with reference to context is essential in this kind of analysis, and has been done where appropriate. The qualitative analyses represent a descent from the 'aerial view' provided by the statistical overview of word patterns. They allowed a fuller appreciation of individual variability and personal agency, and their findings complement and extend the statistical findings. Seale and Charteris-Black [7] (p. 8)

In general, qualitative research does not seek to quantify data, although simple counts can be useful in qualitative studies in specific situations. One example of this approach is Silverman's research on communication in clinics [8]. This quantified features, such as consultation length and the patient's use of questions, and combined this information with the qualitative analysis to confirm a series of propositions about the differences between private and NHS clinics.

Analysis that counts items in the data should be seen as distinct from qualitative analyses in which the data are preserved in their original textual form and interpreted to generate and/or develop analytical categories and theoretical explanations. Qualitative researchers usually treat counting with caution. The reasons for this may be illustrated by contrasting the objectives of qualitative research with that of surveys and trials. In a study where everyone within a given population has had an equal chance of being selected to participate (this assumption is the cornerstone of statistical sampling theory) and all respondents have been asked the same questions in the same manner, it is usually helpful to report responses as frequencies and percentages (relative frequencies). Surveys are designed to recruit sufficient numbers to represent the whole population with reasonable confidence. Trials aim to randomise enough subjects so that any differences between treatment and control groups can be validly identified. By contrast, the qualitative methods of interviewing and observation are intended to identify subjective meanings and generate theory (i.e. explanations), which means that data collection will often continue until saturation point has been reached (i.e. no new categories or explanations are being contributed by additional data), rather than to be statistically representative. For example, unusual or 'outlier' cases may be actively sought to test whether 'saturation' has been achieved. In a qualitative study, where the sample has not been (and often cannot be) selected to be numerically representative of the population, and where the data collection is flexible and responsive, it can be misleading to report relative frequencies. This particularly applies if interview questions have not been asked of all respondents or have not been phrased in the same way.

9.5 Initial Steps in Analysis

Although some analysis is done whilst the data are being collected, there is still much to do once the researcher has left the field. The approach to analysis should relate to the research aims, and will, as suggested in Chapter 2, be influenced by theoretical and methodological perspectives. Different styles of research may require a differing depth of analysis: the analysis of an interview-based study is likely to be more detailed than the analysis of a small number of interviews carried out as a supporting part of a larger mixed method study that has several components to be analysed. The analysis may seek simply to describe people's views or behaviours, perhaps to illustrate other findings, or it may be more ambitious – trying to move beyond this to provide explanations of the findings which can take the form of classifications, typologies, patterns, models, and theories. Spencer et al. [9] (p. 295) suggest that analysis moves between periods of data management, description, and explanation during which the researcher can reflect on what they have done and what they need to do next. This process is fluid and, crucially, non-linear; the researcher develops the analysis by moving backwards and forwards between the original and new data and the emerging interpretations.

Qualitative analysis seeks to develop analytic categories to describe and explain social phenomena. These categories may be derived inductively – that is, obtained gradually from the data themselves – or generated deductively from prior questions or hypotheses, either at the beginning or at intervals during the analysis (see Chapter 2 for more on deductive and inductive reasoning). There are four broad approaches to qualitative analysis: thematic analysis; grounded theory; interpretive phenomenological analysis (IPA); and the 'framework' approach. These are described in more detail below. They sit on a continuum from the broadly inductive to more deductive approaches, but, in practice, many researchers find that they move between induction and deduction during the analysis process. Sometimes techniques from different analytical approaches are combined to understand the data better.

The first task in the analysis is simply to manage and make sense of the huge array of data collected. This data management stage is broadly similar for each of the four analytical approaches, and entails reading and re-reading all the data to identify an initial set of themes. The data are systematically searched for recurring items of interest, such as events or views that are usual, unusual, noteworthy, or contradictory. For focus group or interview material, this may include searching for particular types of narrative – such as jokes or anecdotes, or types of interaction such as questions, challenges, censorship, or changes of mind. In more deductive analytic approaches, pre-defined themes, drawn from the interview topic guide and the project's research questions, are used to direct this searching. Early labels often use the participants' language or terminology and sometimes interesting or unfamiliar terms used by the group studied can form the basis of analytical categories. For example, Becker and Geer's classic study of medical school training uncovered the specialised use of the term 'crock' to denote patients who were seen as less worthwhile to treat by medical staff and students [10].

The data need to be labelled or 'coded' in a way that facilitates identification and retrieval. This labelling needs to be inclusive and codes are added to reflect as many of the nuances in the data as possible, rather than reducing them to a few numerical codes. It is also to be expected that sections of the data will generate several codes. As the analysis continues, codes are grouped together to form categories. Whilst the initial data management is a lengthy and sometimes tedious process, it allows the researcher to sort and arrange the data to build a manageable number of themes and conceptual explanations. An example of the movement from codes to categories and themes is provided in Box 9.1. As

Box 9.1 An Example of Moving from Codes to Categories to a Theme

In Chapple et al.'s [11] interview study of people with lung cancer, the research team initially coded interviewees' descriptions of how they felt stigmatised. These coded extracts were grouped into categories such as 'shame associated with assumed responsibility for the disease (due to association with smoking)' and 'fear of being denied treatment'. Looking at these categories helped the researchers to identify a theme that they called 'resistance narratives' which centred on the multi-factorial causes of lung cancer, which interviewees used as a way to manage (resist) the stigma arising from the association of lung cancer with smoking.

with codes, there will likely be data items which fit into more than one category, so it is vital to have a good system of indexing that allows the retrieval and comparison of codes and categories.

Initially, there is likely to be considerable overlap and repetition between the categories. Informed by the analytical and theoretical ideas developed during the research, these categories are further refined and reduced in number by grouping them together. The researcher will often consult the wider literature surrounding the topic with the aim of ensuring that emerging interpretations and ideas build on and contribute to the field rather than duplicate existing knowledge. It is then possible to select key themes or categories for further investigation. In the study mentioned earlier, Becker and Geer pursued the use of the term 'crock' by medical students to see what types of patients it described and when and how it was used. This meant collating all the instances when 'crock' occurred in the data. Using these data, Becker and Geer were able to explain how medical students and staff categorised patients according to their utility for teaching/ learning purposes. Once this was established, it became clear why 'crocks' (typically the elderly patient, or the homeless alcoholic) who offered little or no possibility for learning about new or interesting disorders, were treated with disdain.

Grouping categories together typically entails a process of cutting and pasting – selecting sections of data on related themes and putting them together. The mechanics of how to do this vary. In the past, multiple copies of notes or transcripts were used so that sections could be, literally, cut out and pasted next to each other or sorted into different piles. Now much of the process can be completed digitally. Matrices or spreadsheets that allow data to be displayed in rows and columns can be used to facilitate this process. Some researchers like to draw ‘mind-maps’ to show the connections between codes, categories, and emerging themes. Many favour paper-based analysis at points in the process, because repeated physical contact and handling of the data can help develop an intimate knowledge of the data, even if the process is laborious.

Word processors can be enormously helpful in searching large amounts of text for specific terms. Whilst it is unlikely to be the sole focus of qualitative research, the simple frequency with which particular words or phrases appear in a piece of text can be illuminating, although this should be interpreted with great care (see the earlier discussion about counting). Other word processing functions can create annotations in the margins of fieldnotes or interview transcripts, or highlight text to support the analysis, and ‘search’ functions can be used to gather chunks of text, which can then be copied and pasted to allow comparison and regrouping. For those that do not wish to use computer software, a large table, floor space, or white board which can be ‘pasted’ with notes or cards summarising data can be a helpful way of dealing with the mass of data at this stage.

Once the data are sorted, there are different ways the analysis can proceed. Below, are four broad approaches that are used in health related research.

9.6 Thematic Analysis

This can be the simplest form of analysis and, perhaps for this reason, it is the most commonly used in health care research. It can also be seen as the basis of all the other approaches to analysis of qualitative data. The researcher groups the data into themes and examines all the cases in the study to make sure that all the manifestations of each theme have been accounted for and compared. If the purpose of the research is primarily descriptive, or exploratory, or this work is a very small part of a mixed methods study, it may be sufficient simply to describe these thematic groupings. However, a stronger analysis will move beyond simple description to examine how the themes are interconnected. This involves trying to identify relationships between themes. Sometimes, the connections are obvious (e.g. only people from a certain social class or ethnic group hold particular views). At other times, it may be necessary to ask questions of the data to see how the themes are linked; for example, it is often worth looking for gender or age differences, or different responses to similar types of event (e.g. a crisis, or critical incident) and it can be helpful to revisit the literature on the topic as well.

Thematic analysis can be used to develop taxonomies or classifications, or to develop models or diagrams that express the connections between themes. Approaches based on 'mind mapping', including using the One Sheet of Paper (OSOP) technique [12], can help the researcher to see patterns in the data and ensure that all relevant extracts are accounted for. Thematic analysis often includes themes that are anticipated (e.g. through reviewing the literature, the researcher might be prompted to ask about particular issues) as well as those that emerge (i.e. that arise directly, or indirectly, during the fieldwork). As an example of an emerging theme, Chapple and Ziebland [13] did not anticipate that humour would play a large part in men's narrative interview accounts of their experiences of testicular cancer. However, it became clear that the use of humour helped men to demonstrate that they were confident that they would recover (testicular cancer is eminently treatable) as well as to affirm that they were still 'one of the lads'. Humour emerged as an important theme in the interviews and led the authors to examine their data in the light of the sociological and anthropological literature on the role of humour and explore the various roles that humour served for these men.

9.7 Grounded Theory

Glaser and Strauss [14] coined the term 'Grounded Theory' to describe the inductive process of identifying analytical categories as they 'emerge from' the data (developing hypotheses from the 'ground' or research field upwards rather than defining them in advance). The process is very similar to an inductive thematic analysis, but a central feature of Grounded Theory is that data collection and analysis are cyclical and iterative – the analysis feeds into subsequent sampling, further data collection and the testing of emerging theories. In this approach, the researcher deliberately selects new respondents or settings to test the emerging analytical categories and theories – this is referred to as theoretical sampling. The analytical process is undertaken until the point of saturation when no further analytical categories can be identified.

Although often seen as inductive, in practice, Grounded Theory often involves deduction, moving backwards and forwards between data and theory. The process of labelling or coding data begins with open coding which involves examining the data line by line to identify as many codes as possible. The properties and dimensions of these codes are then examined by asking of each ‘what are its characteristics?’ and ‘what forms does it take?’ Axial coding is then used to identify the relationships between codes and selective coding to move towards the development of analytical categories by incorporating more abstract and theoretically-based elements. A process called constant comparison is used to check or compare each coded data item with the rest of the data to establish these analytical categories. In addition, during the coding process, the researcher constructs a series of memos, in effect analytical ‘notes-to-self’, which capture ideas about the data, definitions of codes and their properties, as well as ideas for further sampling and testing. Using these techniques, the researcher can slowly build theory or explanations and at the same time test these emerging ideas. Grounded Theory can provide rich, detailed interpretations. For example, Glaser and Strauss [15] were able to use this approach to theorise the nature of relationships between patients with terminal illness and their nurses. The type of care given was related to different levels of awareness of dying, which ranged from open awareness (where both patient and nurse openly acknowledge that the patient is dying), through suspicion (on the part of the patient), mutual deception (where both parties pretend that the patient does not know), and closed awareness (where the patient is not aware that she/he is dying).

Unfortunately, the term Grounded Theory has often been misused as a synonym for any sort of qualitative analysis. It is not uncommon for research papers to report using Grounded Theory without any of the elements described above. The flexibility required to enable adequate theoretical sampling, continual re-analysis, and additional data collection can take a long time and it is resource intensive. In addition, the fact that it is seldom possible to specify precisely the dimensions or direction of the research at the outset when adhering to a true Grounded Theory approach can make such projects appear problematic for research funders and research ethics committees (see Chapter 3 on ethical issues).

9.8 Interpretative Phenomenological Analysis (IPA)

Influenced by the philosophers Husserl [16] and Heidegger [17], IPA researchers seek to understand how people experience and describe their world, and how they construct meanings. The approach has been widely used in qualitative health care research, particularly by psychologists [18] and nurse researchers. IPA researchers are also particularly encouraged to record and reflect on their own preconceptions before engaging in the research, and to document their responses during fieldwork and analysis. IPA includes similar elements to thematic analysis and Grounded Theory, in that the researcher needs to become very familiar with the data, identify codes, and group these to develop themes. The difference is the additional emphasis on how people interpret and make sense of events. IPA explicitly involves a double layer of interpretation: the researchers add their interpretation to the participants' (account of) their interpretation of events. This is called the 'double hermeneutic'.

Researchers using IPA tend to examine a relatively small number of interviews in great depth, balancing description and interpretation to focus on the meanings that the participants ascribe in their accounts. For example, Lavie-Ajayi and colleagues used IPA to explore the experiences of Israeli women living with chronic pain [19]. They describe the

> often contradictory, faces of the phenomenon. On the one hand, it is keenly – sometimes excruciatingly – and acutely felt, with the consequences radiating to all aspects of life; on the other hand, chronic pain is an elusive and deceptive phenomenon, sometimes ignored, denied or delegitimized by family members, health professionals and the medical establishment and by public discourse. This doubled tension is not merely at the surface but goes to the very core of the personal experience of the condition, leading to narratological distress. (p. 195)

The focus in IPA on how people make sense of their feelings and experiences means it has been especially helpful for exploring topics which have emotional dimensions, such as pain, and it is often used in the field of health psychology.

9.9 The 'Framework' Approach

The 'framework' approach developed by the National Centre for Social Research (NatCen) in the UK is a more deductive form of analysis that is increasingly being used in health care research [20]. It is a development of the matrix-based analysis described by Miles and Huberman [5]. Framework is especially suited to applied or policy research in which the objectives of the investigation are typically set in advance and shaped by the information requirements of the funding body rather than emerging from a reflexive inductive research process. The timescales of such research may also be shorter than other types of research. Qualitative analyses using framework are often linked to findings from quantitative investigation in mixed method studies (see Chapter 12). For these reasons, although the framework approach to analysis is heavily based on the original accounts and observations of the people studied (that is, it is 'grounded' and inductive), it starts deductively with the aims and objectives already set for the study. It is systematic and designed for transparency so that the analytic process and interpretations can be viewed and assessed by people other than the primary analyst (see Chapter 15 on quality in qualitative research for more on this issue).

The topic guides used to collect data for the framework approach (for example, to guide depth interviews) tend to be slightly more structured from the outset than would be the norm for most qualitative research. The analytical process is similar to thematic analysis but tends to be more strongly informed by a priori reasoning and adds a distinctive data summary and display component that aids comparison and explanation between individuals and cases. The broad stages of the approach are outlined in Box 9.2. In the later stages, the researcher works with data summaries and the charts or matrices describe each theme, displaying sub-themes across the columns and each participant or case as a separate row. These charts can be created on large sheets of paper, or using digital analysis software (and, since 2011, the framework has been incorporated into the NVivo qualitative data analysis software package (see below).

Box 9.2 Stages of Data Analysis Using the Framework Approach [20]

- Familiarisation – immersion in the raw data to get an overview of topics.
- Constructing an initial thematic framework – refining and sorting the key topics, identifying and developing themes. The end product of this stage is a set of themes that comprises the initial thematic framework. This includes themes developed from the research questions as well as those that emerge from the data.
- Labelling and sorting – the thematic framework is used to label the data, identifying all the data items that are on the same topic or theme.
- Reviewing data extracts – looking for coherence in the groupings and amending labels and sorting, as necessary.
- Data summary and display – sometimes called charting – preparing summaries of each sub-theme for each participant and displaying these in rows and columns so that they can be compared. There may be several charts (sometimes called matrices) for each theme.
- Abstraction and interpretation – the charts are used to map the range and nature of phenomena, to create typologies of responses and to establish the relationships between data items and themes, and to look for connections between experiences or behaviours. In the later stages, this process moves towards explanation of why these relationships exist or why particular patterns occur. Again, this process is influenced by the original research objectives as well as by ideas that have emerged from the data.

9.10 Software Packages Designed to Handle Qualitative Data

The use of specialist computer-assisted qualitative data analysis software (CAQDAS) packages has become much more common in qualitative research. For up-to-date information about CAQDAS and training courses in the UK, the University of Surrey provides useful resources at http://www.surrey.ac.uk/sociology/research/researchcentres/caqdas/support/choosing.

It is worth considering, especially for a smaller project, whether specialist software is needed – after all, social analysts were producing excellent work, using only handwritten notes, for many decades before CAQDAS arrived on the scene. There are also ‘apps’, such as the

Annotation App for Macs, which can be used to highlight text and apply codes and notes, which can then be organised and examined whilst leaving the original documents intact.

Researchers can visit the software developer's website to explore a downloadable demonstration version of the packages they are considering using. It is also a good idea to find out whether other researchers in your department or amongst your collaborators have experience with similar packages. Considerations might also include whether there will be a team working on the data together (some are designed for distributed teams whilst others better suited to the lone researcher), or whether it is possible to import linked tables, perhaps from a survey, in studies using mixed methods. Atlas Ti [21], NVivo [22], HyperResearch [23], Transana [24], and MAXQDA [25] all allow for multimedia data files (digital video, audio, or photographs) to be included. However, because digital video files are often very large, it is important to check that the package can handle the quantity of data. For example, to date the http://healthtalk.org team in the UK have been unable to find a software package that can handle the volume of digital video (amounting on average to around forty 90–120 minute interviews) produced by each of their studies, which are currently transcribed for textual analysis. No doubt the technology will improve in future releases. We can also anticipate that the next phase of CAQDAS development may include automatic transcription and voice recognition software, which could offer efficiencies; but, at the time of writing, even those packages, such as Transana, which were designed to manage audio and video data and analysis, are unable to offer this feature.

Software packages that have been designed to assist in the analysis of unstructured textual data all have code and retrieval functions. Other functions include the ability to conduct selective retrievals using indexing terms (for example, the respondent's use of a particular term or a shared characteristic such as gender); to use algorithms to identify co-occurring codes in a range of logically overlapping or hierarchically arrayed possibilities; to attach annotations to sections of the text as 'memos'; to add new codes; and to join together existing codes. CAQDAS packages now also offer functions that enable far more complex organisation, annotation, data linkage, and retrieval of data than are possible in standard word processing packages.

It has been suggested that computer-assisted analysis can help the researcher to build theoretical links, search for exceptions, and examine 'crucial cases' where counter evidence might be anticipated. A systematic search for disconfirming evidence can be assisted by using Boolean operators (such as 'or', 'and', 'not') to examine the data. Extracts from transcripts can be gathered under codes and exported as reports containing all the grouped material, ready for further exploration using the analyst's preferred approach, such as 'mind-mapping' [26].

Specialist software can improve the rigour of analysis and certainly it can help with some of the more laborious aspects of data retrieval once the data have been coded, but some caution is advisable. Some qualitative researchers who have tried CAQDAS packages dislike the apparent segmentation of the data that can occur and are concerned that the analysis can lose touch with the context in which the data were generated – although this is not an inevitable by-product of using the packages. The researcher can revisit the context of coded data extracts by looking at other index terms (which could be sociodemographic variables or conceptual codes) that are attached to the data or by displaying the lines of text that surround it. It is important to note that the packages are not designed to provide the researcher with a particular methodological or analytic framework. Whilst the ability to index, gather, and sort are important for organising and accessing the data, these functions can only assist the analytic process, not design it or replace it.

Another concern about the use of CAQDAS is that the prospect of computer-assisted analysis may persuade researchers (or those who fund them) that they can manage much larger amounts of data and thereby increase the apparent 'power' of their study. Qualitative studies, which are not designed to be statistically representative, may gain little from an expanded sample size except a more cumbersome dataset. The nature and size of the sample should be directed by the research question and analytic requirements, not by the capacity of the available software. In some circumstances, a single case study may be the most successful way of generating theory (see Chapter 13 on case studies). Lee and Fielding [27] also warn that there is little evidence that using a computer package will make analysis less time consuming.

9.11 Developing Explanations – The Role of the Researcher

The essential tasks of studying the raw data (e.g. transcripts of interviews), recognising and refining the concepts, and coding the data are inescapably the work of the researcher. For these reasons, it is important to dispel the notion that software packages are designed to deliver qualitative analysis of textual and other data. A computer package may be a useful aid when gathering together chunks of data, establishing links between the fragments, organising and reorganising the display, and helping to find exceptions, but no package is capable of perceiving a conceptual link or defining an appropriate structure for the analysis. To take the analysis beyond the most basic descriptive exercise requires the researcher's analytical skills in moving towards hypotheses or propositions about the data and trying to test them.

The different analytical approaches described provide ways of sorting, arranging, and displaying data to assist the search for patterns and relationships within the data as a way of building explanations. To do this the researcher must ask, 'what lies behind this pattern?' and 'why does this relationship occur?' The analyst will also pay attention not only to *what* was said, but also *how* it was said, noting similarities and differences across the dataset which may suggest patterns. The search for deviant cases can be helpful here – it is often the exception or outlier that illuminates the rule or connection binding the other respondents or cases together. For example, in Chapple and Ziebland's study of humour in coping with the experience of testicular cancer, the few men who said that they had felt upset when others used humour were those who had lost both testicles or had been unable to preserve their fertility. This helped the authors to understand the distinction between 'pure' (jokes about the condition) and 'applied' humour (where jokes served a function – reassuring the man that he was being treated normally by his friends, establishing camaraderie, and so on).

Building explanations is a difficult process. It requires intimate knowledge of the data, creativity, and lateral thinking. It is usual during the analysis to return to the literature, both to look for relevant theory to help illuminate the findings and also to identify gaps which the study might address. Knowledge of the wider literature – other studies in the area, relevant theories, and sometimes apparently unrelated work – can play a central role in this (for example, a key piece of literature that one of us used to theorise about hospital waiting lists [28] was a paper about former Soviet Bloc bread shop queues [29]).

One way of developing explanations is analytic induction. Linked to Grounded Theory, this involves an iterative testing and retesting of theoretical ideas using the data. Bloor [30] describes in some detail how he used this procedure to reconstruct the decision-making rules used by ear, nose, and throat surgeons (see Box 9.3).

Box 9.3 Stages in the Analysis of Fieldnotes in a Qualitative Study of Ear, Nose, and Throat Surgeons' Disposal Decisions for Children Referred for Possible Tonsillectomy and Adenoidectomy (T&A) [30]

1) Provisional classification – For each surgeon, all cases categorised according to the disposal category used (for example, T&A or tonsillectomy alone).
2) Identification of provisional case features – Common features of cases in each disposal category identified (for example, most T&A cases found to have three main clinical signs).
3) Scrutiny of deviant cases – Include in (2) or modify (1) to accommodate deviant cases (for example, T&A performed when only two of three signs were present).
4) Identification of shared case features – Features common to other disposal categories (history of several episodes of tonsillitis, for example).
5) Derivation of surgeons' decision rules – From the common case features (for example, case history more important than physical examination).
6) Derivation of surgeons' search procedures (for each decision rule) – The particular clinical signs looked for by each surgeon.
7) Repeat (2) to (6) for each disposal category.

9.12 Working in a Team

Health services research sometimes needs quick answers to inform practice and policy. Whilst a sole qualitative researcher may struggle to work within a brief timeframe, a potential solution may be for a team to conduct the fieldwork. A recent study of how general practices have adopted 'alternatives to the face to face consultation' (such as telephone, web portals, email, or video conferencing) used a focused ethnography design [31]. Three field ethnographers worked for intensive periods in eight practices in urban and rural settings in England and Scotland during a 12-month period. Researchers used fieldnotes as well as informal and recorded interviews. The recorded interviews were transcribed for analysis. The field researchers spoke at least fortnightly and met regularly during the project. Each researcher produced a structured summary of the findings from their fieldnotes about each practice. Whilst some of the individual richness of the fieldnotes was probably sacrificed, the use of these summaries meant that the key, comparable data could be analysed, using a thematic approach and OSOP 'mind-mapping', by members of the team.

Some researchers suggest that qualitative analyses may carry greater weight when they can be shown to be consistent between researchers (particularly when the research has been undertaken to inform policy-makers). This is close to the concept of inter-rater reliability, which is familiar in quantitative research. For example, Daly et al.'s study of cardiac diagnosis [32] and Waitzkin [33] used more than one analyst in order to improve their analyses. However, the appropriateness of the concept of inter-rater reliability in qualitative research is contested. Some qualitative researchers claim that since a qualitative account cannot be held straightforwardly to represent the social world and all research findings reflect the identity of the researcher, different researchers are bound to offer different accounts, especially if the data are relatively unstructured. Another, less radical, assertion is that each researcher has unique insights into the data, which cannot be straightforwardly checked by others [34]. For example, the perspectives of colleagues from other disciplinary backgrounds can often add analytic depth to data interpretation and it would seem foolish to ignore such insights simply because they do not precisely overlap with the researcher's own.

Armstrong et al. [35] attempted to answer the question: Do qualitative researchers show consistency in their accounts of the same raw data? To test this, they asked six experienced qualitative researchers independently to analyse a single focus group transcript and to identify and rank in order of salience the major themes emerging in the discussion. Another social scientist, who had not read the transcript of the focus group, then read the six reports in order to determine the main themes and to judge the extent to which the six researchers agreed. There was quite close agreement about the identity of the basic themes, but the six researchers 'packaged', or linked and contextualised, the themes differently. Armstrong et al. concluded that such reliability testing was limited by the inherent nature of the process of qualitative data analysis. On the other hand, the interpretations of the six researchers had much in common despite the fact that they were from two different countries (Britain and the United States), and from three different disciplines (anthropology, psychology, and sociology). By deliberately selecting a diverse range of analysts (albeit all experienced), Armstrong et al. constructed a tough test of inter-rater agreement and one which would be unusual in a typical research study.

Despite the potential limitations of the concept of ‘reliability’ in the context of qualitative research, there may be merit in involving more than one analyst in situations where researcher bias (i.e. a lack of validity) is especially likely to be perceived as a risk by others; for example, where social scientists are investigating the work of clinicians or evaluating government policy. In their study of the contribution of echocardiography to the social process of diagnosing patients with suspected cardiac abnormalities, Daly et al. [32] developed a modified form of qualitative analysis involving both the sociologist researchers and the cardiologists who had managed the patients. The raw data consisted of transcripts of the consultations between the patients and the cardiologists, cardiologists’ responses to a structured questionnaire, and transcripts of open-ended research interviews with the cardiologists and with the patients.

First, the transcripts and questionnaire data were analysed by the researchers in order to make sense of the process of diagnosis, including the purpose of the test. From this analysis, the researchers identified the main aspects of the consultations that appeared to be related to the use of echocardiography. Next, these aspects or features of the clinical process were turned into criteria in relation to which other analysts could generate their own assessments of the meaning of the raw data. The cardiologists involved then independently assessed each case using the raw data in order to produce an account of how and why a test was or was not ordered and with what consequences. The assessments of the cardiologists and sociologists were compared statistically (an unusual procedure for a qualitative study) and the level of agreement was shown to be good. Finally, in cases where there was disagreement between the original researchers’ analysis and that of the cardiologist, a further researcher repeated the analysis. Remaining discrepancies were resolved by consensus after discussion between the researchers and the cardiologists. Although there was an element of circularity in part of this lengthy process (in that the formal criteria used by the cardiologists were derived from the initial researchers’ analysis), and it involved the derivation of quantitative gradings and statistical analysis of inter-rater agreement, which are unusual in a qualitative study, it meant that clinical critics could not argue that the findings were simply based on the subjective judgements of an individual researcher.

9.13 Conclusion

This chapter has shown that analysing qualitative data is not a simple or quick task. Done properly, it is systematic and rigorous, and therefore labour-intensive for the researcher(s) involved. Fielding contends that 'good qualitative analysis is able to document its claim to reflect some of the truth of a phenomenon by reference to systematically gathered data', in contrast, 'poor qualitative analysis is anecdotal, unreflective, descriptive without being focused on a coherent line of inquiry' [36] (p. 168–69). At its heart, good qualitative analysis relies on the skill, vision, and integrity of the researcher or researchers doing the analysis, and as Dingwall et al. have pointed out, this may require highly trained and, crucially, experienced researchers [37].

References

1 Lapadat, J.C. and Lindsay, A.C. (1999). Transcription in research and practice: from standardisation of technique to interpretive positionings. *Qualitative Inquiry* **5**: 64–86.

2 Economic and Social Research Council. QUALIDATA: Qualitative Data Archival Resource Centre, established 1994, University of Essex. 2014 https://sp.ukdataservice.ac.uk/qualidata/about/introduction.asp (accessed 13 April 2019).

3 Ziebland, S. and Hunt, K. (2014). Using secondary analysis of qualitative data of patient experiences of health care to inform health services research and policy. *Journal of Health Services Research and Policy.* **19** (3): 177–182.

4 Becker, H.S. (1971). *Sociological Work*. London: Allen Lane.

5 Miles, M. and Huberman, A. (1984). *Qualitative Data Analysis*. London: SAGE.

6 Seale, C., Charteris-Black, J., and Ziebland, S. (2006). Gender, cancer experience and internet use: a comparative keyword analysis of interviews and online cancer support groups. *Social Science and Medicine* **62** (10): 2577–2590.

7 Seale, C. and Charteris-Black, J. (2008). The interaction of age and gender in illness narratives. *Ageing and Society* **28** (07): 1025–1045.

8 Silverman, D. (1984). Going private: ceremonial forms in a private oncology clinic. *Sociology* **18**: 191–202.

9 Spencer, L., Ritchie, J., Ormston, R. et al. (2014). Analysis: principles and processes. In: *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, 2e (eds. J. Ritchie, J. Lewis, C. McNaughton Nicholls and R. Ormston), 269–294. London: SAGE.

10 Becker, H.S. and Geer, B. (1982). Participant observation: the analysis of qualitative field data. In: *Field Research: A Sourcebook and Field Manual* (ed. R.G. Burgess), 239–250. London: Allen and Unwin.

11 Chapple, A., Ziebland, S., and McPherson, A. (2004). Stigma, shame and blame: a qualitative study of people with lung cancer. *BMJ* **328**: 1470–1475.

12 Ziebland, S. and McPherson, A. (2006). Making sense of qualitative data analysis: an introduction with illustrations from DIPEx (personal experiences of health and illness). *Medical Education* **40** (5): 405–414.

13 Chapple, A. and Ziebland, S. (2004). The role of humour for men with testicular cancer. *Qualitative Health Research* **14**: 1123–1139.

14 Glaser, B.G. and Strauss, A.L. (1967). *The Discovery of Grounded Theory*. Chicago, IL: Aldine.

15 Glaser, B.G. and Strauss, A.L. (1965). *Awareness of Dying*. Chicago, IL: Aldine.

16 Husserl, E. (1999). *The Essential Husserl: Basic Writings in Transcendental Phenomenology* (ed. D. Welton). Bloomington and Indianapolis: Indiana University Press.

17 Heidegger, M. (1927/2005). *Being and Time*. (trans. J. Macquarrie and E. Robinson). Oxford: Blackwell.

18 Smith, J.A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative Research in Psychology* **1**: 39–54.

19 Lavie-Ajayi, M., Almog, N., and Krumer-Nevo, M. (2012). Chronic pain as a narratological distress: a phenomenological study. *Chronic Illness* **8** (3): 192–200.

20 Ritchie, J., Lewis, J., McNaughton Nicholls, C., and Ormison, R. (eds.) (2014). *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, 2e. London: SAGE.

21 Berlin, Scientific Software Development. ATLAS ti. Version 4.2. https://atlasti.com/., 2017.

22 QSR International Pty Ltd. NVivo qualitative data analysis Software Version 11. 2015.

23 Computer Software, Researchware, Inc. HyperRESEARCH 3.7.3. 2015.

24 Woods D., Fassnacht C. Transana v3.10. www.transana.com. 2017. Madison, WI: Spurgeon Woods LLC.

25 VERBI Software – Consult – Sozialforschung GmbH. MAXQDA, software for qualitative data analysis. 2017, Berlin, Germany.

26 Buzan, T. (1974). *Use Your Head*. London: BBC Books.

27 Lee, R. and Fielding, N. (1995). User's experiences of qualitative data analysis software. In: *Computer Aided Qualitative Data Analysis: Theory, Methods and Practice* (ed. U. Kelle), 29–40. London: SAGE.

28 Pope, C. (1991). Trouble in store: some thoughts on the management of waiting lists. *Sociology of Health and Illness* **13**: 193–212.

29 Czwartosz, Z. (1988). On queuing. *Archives Europeenes de sociologie* **29**: 3–11.

30 Bloor, M. (1978). On the analysis of observational data: a discussion of the worth and uses of inductive techniques and respondent validation. *Sociology* **12**: 545–552.

31 Higginbottom, G.M.A., Pillay, J.J., and Bouda, N.Y. (2013). Guidance on performing focused ethnographies with an emphasis on healthcare research. *The Qualitative Report* **18**: 16.

32 Daly, J., McDonald, I., and Willis, E. (1992). Why don't you ask them? A qualitative research framework for investigating the diagnosis of cardiac normality. In: *Researching Health Care: Designs, Dilemmas, Disciplines* (eds. J. Daly, I. McDonald and E. Willis), 189–206. London: Routledge.

33 Waitzkin, H. (1991). *The Politics of Medical Encounters*. New Haven: Yale University Press.

34 Morse, J.M. (1994). Designing funded qualitative research. In: *Handbook of Qualitative Research* (eds. N.K. Denzin and Y.S. Lincoln), 220–235. London: SAGE.

35 Armstrong, D., Gosling, A., Weinman, J., and Marteau, T. (1997). The place of inter-rater reliability in qualitative research: an empirical study. *Sociology* **31**: 597–606.

36 Fielding, N. (1993). Ethnography. In: *Researching Social Life* (ed. N. Fielding), 155–171. London: SAGE.

37 Dingwall, R., Murphy, E., Watson, P. et al. (1998). Catching goldfish: quality in qualitative research. *Journal of Health Services Research and Policy* **3**: 167–172.

Further Reading

Ritchie, J., Lewis, J., McNaughton Nicholls, C., and Ormston, R. (eds.) (2014). *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, 2e. London: SAGE. Chapters 10 and 11.

10

Conversation Analysis

Geraldine M. Leydon[1] *and Rebecca K. Barnes*[2]

[1] *Faculty of Medicine, University of Southampton, Southampton, UK*
[2] *Centre for Academic Primary Care, University of Bristol, Bristol, UK*

10.1 Introduction

This chapter provides a brief introduction to Conversation Analysis (CA) and its application in health care research. CA can be thought of usefully as both theory and method. From this chapter, readers will gain an overview of key theoretical principles, the sorts of research questions CA can address, how to collect and analyse CA data, and how to disseminate findings, but we encourage further reading and specialised training for those planning to undertake this type of analysis. We illustrate the different kinds of data conversation analysts can work with, showing the level of transcription that is needed to facilitate analysis, what analysis looks like, and direct practical applications to help readers understand what the method involves and the valuable role it can play.

10.2 What Is CA?

The foundations of CA lie in North America with the work of three sociologists: Harvey Sacks, Emanuel Schegloff, and Gail Jefferson. Sacks described CA as an 'observational science' concerned with the analysis of everyday talk to make explicit what 'we' (as members of society) know practically. For example, in 1964, Sacks had been pondering a

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope
and Nicholas Mays.

recurrent challenge that was reported by call takers at the Suicide Prevention Centre in Los Angeles; namely, how to solicit callers' names. Sacks was given access to stenographic transcripts and tapes of telephone calls to the Centre. He observed a repeated pattern that when a caller did not give her name during the opening exchange, it was likely to be difficult for the call taker to elicit it later in the call.

With his colleague, Schegloff, Sacks' approach to working with recordings of real-life data was the springboard for a new programme of sociological work focusing on 'ordinary conversation'. The aim of this programme was to discover the underlying rules and norms that guide how talk works. Jefferson's important contribution was the development of a unique transcription notation [1] for 'technically trapping' conversation. A significant body of work applying CA methods to a range of health care encounters has since emerged. The aim of this applied work has been to identify the rules and norms that guide the routine tasks and goals of health care – such as soliciting patients' problems, diagnosing, and prescribing – and how these norms can affect consultation outcomes. (see Barnes [2] for a recent overview).

Rather than treating talk as a route to participants' beliefs or perspectives 'under the skull', as in most qualitative interview studies, CA researchers focus on what participants are *doing* with their talk. This perspective relies on three key principles of conversation:

1) Social action: with each turn at talk, participants are 'doing' something (e.g. questioning or answering).
2) Action sequences: social actions are positioned in sequences known as 'adjacency pairs' in which, following an initiating action (e.g. a request), a responding action (e.g. a granting) is accountably due.
3) Turn design: the same actions can be implemented or accomplished in different ways. For example, a doctor's offer of sickness certification may be formulated as 'Do you need a sick note?' or 'Do you want some time off work?', implying different levels of endorsement and entitlement. In similar fashion, a recommendation for an antibiotic treatment can be formulated in varying ways, such as, 'It's probably viral, but just in case we could try some antibiotics if you like', versus 'I'm going to give you an antibiotic'. Systematic analysis tells us that such differing formulations can have consequences for the unfolding talk, such as acceptance of, or resistance to, a recommendation. See Sidnell and Stivers [3] for a fuller description of these fundamental structures of conversation.

10.3 What Kinds of Questions Can CA Be Used to Answer?

CA methods can be applied alone or as part of multiple or mixed methods studies of health care encounters. CA has been used to explore a range of different health care related research questions. One of the most popular applications has been to understand the different activity phases and routine tasks in general practice consultations, and the practical problems faced by patients and health care providers when talking together [4, 5]. Increasingly, researchers have been combining CA with statistical analysis, testing associations between interactional practices and other variables; for example, exploring how talk is influenced by the socio-demographic characteristics of patients and clinicians [6]. Other studies have focused on how talk practices can shape the trajectory of a health care encounter, the smooth progression of calls to a help line, and the extent to which decisions about treatment can be shared or outcomes such as patient satisfaction gauged (e.g. [7–9]). More recently, CA theory and methods have been applied in the context of clinical trials [10], as well as underpinning intervention development and the choice of outcome measures [11–13]. CA methods have been applied to trial processes, such as recruitment, and to assess the implementation of talk-based health care interventions [14, 15]. As evidence mounts regarding its utility, feasibility, and acceptability, it is likely that CA will play an increasingly important role in the development and evaluation of interventions that involve interactions of some kind, be it between people or between people and digital technologies that emulate language.

10.4 Collecting Naturalistic Data

Once a research question has been set and a CA approach agreed to be appropriate, there is the practical matter of how to access naturally occurring data that will enable the question(s) to be answered. The collection of health care data ‘in the wild’ has particular challenges and meticulous planning is important. Issues to consider will include the quantity of data needed, their format, where, how and for how long data will be stored, who will have access to the data, and a method for safe data transfer from the research site for transcription and for shared analysis with colleagues.

One of the most important distinguishing features of CA is its exclusive focus on naturalistic data – interactions that would have occurred regardless of the researcher's interest. Some naturally occurring interactions are not accessible and hence not researchable, so the research topic and question(s) need to be set with issues of accessibility in mind. Primary data collection can be labour intensive, so existing datasets are helpful. For example, the One in a Million archive at the University of Bristol [16] holds approximately 300 video-recorded primary care consultations between GPs and patients with permissions in place for reuse (subject to relevant ethical approvals).

Some health care interactions, particularly telephone calls, are routinely recorded for training and service improvement purposes, and this can be an efficient route to data collection. Informed consent is still required, and this will need to be configured to suit the organisation as well as to meet ethical standards. Often this can be done using an automated message to callers explaining that research is being conducted and asking callers if they are happy to have their call data included. This can be followed with an invitation to provide written consent, allowing time for callers and call takers to think through their participation and request withdrawal of their data if desired.

If existing datasets or routinely collected data are not available, primary data collection will be required. This means identifying whether or not there are scheduled encounters that can be recorded, where the interactions of interest are likely to occur and how often these occur, as well as practical issues such as whether the researcher needs to be present for the recordings and how these will be made. In one study of oncology consultations, it quickly became evident that practitioners were too overworked to manage the recording process in a busy clinic environment, so the researcher had to directly oversee the patient recruitment and recording [17]. Telephone calls can be recorded using a remote service or a simple telephone connector device and a digital recorder.

There are many unobtrusive audio recorders that can capture conversational data in face-to-face encounters. Video-recording is the optimum for CA as it enables more accurate transcription and allows researchers to study how talk is coordinated with visible conduct. Some researchers and research ethics committees take a rather paternalistic stance when it comes to recording real interactions, often suggesting that it is too intrusive for participants. But evidence from prior studies and experience in the field tells us that, even in settings that might involve 'delicate' discussions, more often than not, when asked, people will agree to be recorded. Indeed, recent work has highlighted that video-recording is an acceptable and worthwhile way of investigating communication, even in areas such as palliative medicine that might be considered interactionally sensitive [18]. It is therefore important that researchers do not rule out recording interactions from the outset because of an assumed impossibility and unacceptability of the method. It is often entirely possible and acceptable.

Audio- and video-recordings provide for repeated and detailed analyses of interactional phenomena which 'greatly enhances the range and precision of the observations that can be made' [19] (p. 4). However, an often-used argument against recording is that watching people can influence their behaviour – the so-called Hawthorne effect. Certainly, in the 1970s, Labov highlighted this problem when he observed that 'the aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain these data by systematic observation' [20] (p. 209). Whilst this paradox makes sense, it does not necessarily rule out the utility of recording since there is evidence to suggest that the Hawthorne effect may be overstated [21]. On the other hand, it is worth remembering that people who agree to be observed and recorded may differ from those who decline, though this problem is common to all social research, not just CA. It is important to document the identification and recruitment process to understand as much as possible the potential differences or similarities between those who agree and those who decline to take part. Further, if research ethics committees permit, it is good practice to ask potential participants to describe their reasons for declining to help gauge such differences.

10.5 Transcription

CA has had some 'bad press' over the years, perhaps, in large part, because the detailed approach to transcription in preparation for analysis can seem inaccessible to the untrained eye (see Box 10.1 for key to basic transcription notation). CA's theoretical orientation insists that 'no order of detail in interaction can be dismissed a priori as accidental or irrelevant' [22] (p. 241). Rather, it is essential that the details of interaction are captured so they are made available to the analyst (as they were to the participants) in order to determine what is or is not relevant to the question in hand. Professional transcription services for CA are inevitably costly, so researchers themselves often pay to have data transcribed verbatim and then work up selected fragments for a more detailed analysis (typically selected based on preliminary analysis of verbatim transcripts and listening/watching the recordings).

There are a number of software packages to support transcription. Their utility will vary depending on the type of data collected and the purpose of the research. Audacity (http://www.audacityteam.org) is freely available for working with audio data. ELAN (https://elan.dfg.de/dana-na/auth/url_3/welcome.cgi) is also freely available and can be used with both digital video and audio data as it allows transcription

Box 10.1 Key to Transcript Symbols

[	A left bracket indicates the point of overlap onset.
]	A right bracket indicates the point at which an utterance or utterance-part terminates vis-a-vis another.
(0.0)	Numbers in parentheses indicate elapsed time by tenths of seconds.
(.)	A dot in parentheses indicates a tiny 'gap' within or between utterances. It is probably of no more than one-tenth of a second's duration.
_	Underscoring indicates some form of stress, via pitch and/or amplitude. A short underscore indicates lighter stress than does a long underscore.
::	Colons indicate prolongation of the immediately prior sound. The longer the colon row, the longer the prolongation.
↑ ↓	Arrows indicate shifts into especially high or low pitch.
> <	Right/left carats bracketing an utterance or utterance-part indicate speeding up.
. , ? _	Punctuation markers are used to indicate intonation. ? = rising final intonation . = falling final intonation , = slightly rising _ = flat intonation
-	A dash indicates a cut-off.
(( ))	Doubled parentheses contain transcriber's descriptions.

and annotation of bodily conduct. Transana (http://www.transana.com) is available at cost and can be used for transcription and analysis of digital video and audio data.

CA transcription is a skill that requires training, practice and a 'good ear' for detail. It often takes several hearings of a turn at talk to get to a stage where the mechanics of a turn – that is, how the turn was produced – are adequately 'trapped' and annotated. Researchers need to bear in mind their research aims and the level of detail required, as the relevance of particular features of talk will vary across studies.

10.6 Analysis

When using CA methods to analyse health care encounters, the approach and focus of analysis is usually pre-specified by the research question and the nature of the data collected. 'Multi-modal' analysis of video-recorded encounters allows consideration of talk and visible conduct where relevant. This approach is considered the most accurate way to analyse face-to-face encounters, as it can include aspects such as body orientation, gaze, gesture, and use of objects such as information leaflets or electronic health records as well as the talk. Auditory analysis is the norm for telephone interaction. However, when data collection is restricted to audio-only recordings of face-to-face encounters, the accuracy of the analysis and the claims that can be made (e.g. interpretation of periods of silence) will be limited. Some studies have used a hybrid approach, synchronising audio and video data; for example, RB's study of telephone triage interactions where nurses were using computerised decision-support software (CDSS) [23]. This allowed consideration of how the CDSS's pre-allocated questions and fixed lists of possible answers restricted patient-initiated actions and constrained their responses [24].

Instead of looking for themes in what patients or health care providers are *saying* in their talk, as is the usual approach in much qualitative research, the aim in CA is to observe what participants are *doing* with their talk; or, put another way, what *action* they are producing or accomplishing in, and through, their talk. Typically, the researcher begins by watching or listening to the recording and reading the transcript to gain an overall sense of the structure of the interaction. Although interest in a particular

Box 10.2 Parsing a Series of Question–Answer Adjacency Pairs During History-Taking

GP Consultation

```
 1 DOC: Fb He's normally ↑fit and we::ll [↑healthy baby, Q
 2 MUM: Sb                               [Ye:p          A
 3         [yeah_
 4 DOC:    [Yeah?
---------------------------------------------------------
 5 DOC: Fb >Up to date with all his immunisa[tio:ns<. Q
 6 MUM: Sb                                  [Yep
                                            ((Nods))  A
 7 DOC:    Ye::s_
---------------------------------------------------------
 8 DOC: Fb Was he a (.) normal vaginal delivery::[o:r Q
 9 MUM: Sb                                           [No
           he's A
10         one of triplets. ((Looks away at baby))
11 DOC:    One of triplets_ course [he is I [remember that_
12 MUM:                            [Yeah,   [huh huh huh huh
```

Key:
Fb=First adjacency pair part
Sb=Second adjacency pair part

action or communication practice might be sparked by a common-sense, intuitive grasp of what is happening in the talk, the challenge with CA is to try to avoid a priori speculation about context or the psychological motives of participants.

A good route into analysis designed to help move beyond a vernacular sense of what is happening is to break up the transcript into discrete chunks or sequences so as to be able to understand the unfolding action from the participants' perspective. This can be as simple as drawing a line across the transcript where you think a sequence begins and ends (see Box 10.2). This facilitates closer attention to sequence structure. A useful next step is to annotate each sequence in terms of its constituent parts and their positioning; for example, any preliminary sequences, the initiating action, the responding action (if any) and any further sequence expansions (see Box 10.3). Once this is done, it is possible to consider the design features of individual turns at talk that make up the sequence. The researcher

Box 10.3 Annotating an Offer–Acceptance and a Request–Granting Pair

Nurse telephone triage

Offer

NUR: F_b I've ↑got an appointment actually Dr Johnson
this afternoo:n at ten ↑past (0.6) ↑fi::::ve,
PAT: S_b Yeah an- (.) any time would be goo::d_

Acceptance

Request

NUR: F_b This is part of a research this telephone
tria:ging,(.) would yo[u be] happy for the
PAT: [Yes_]
NUR: researcher to look in your notes in about
twelve weeks ti::me (.) to see if there's
anything else we >could have< done for you::,
PAT: S_b ↑Yeah of cou::rse (.) yeah_

Granting

Key
Fb=First pair part, base sequence
Sb=Second pair part, base sequence

can then search for other instances of what appears to be the same practice or phenomenon across the dataset, building a collection of similar cases for detailed inspection, moving between individual cases and a wider view of the collection of cases. The researcher looks for common and recurrent features in the data and pays attention to 'boundary cases' that help delineate and discriminate items of interest from other phenomena.

There is an increasing trend towards combining CA with other qualitative and quantitative approaches to enable multiple research questions to be addressed. Analytically, the initial steps are the same, but once the phenomenon of interest has been described fully it can be operationalised as a set of interaction variables in a formal CA-grounded coding scheme. This approach is ideal for working with large datasets. Associations between interaction variables and other exogenous variables can then be explored. In one such study, RB found that clinician talk that contained sequences that prepared the patient for a particular recommendation reduced the chance of patient resistance [25].

Combining CA and ethnography can promote a clearer understanding of the tasks, goals, and practical problems at hand in particular health care interactions. This can facilitate analysis by exposing embedded knowledge and/or experience that the researcher does not share. For example, Whalen spent 15 months working as a call taker and dispatcher at a public safety communications centre as part of his study of calls to the emergency services [26]. This helped the research team understand the work involved in this service and what the call takers needed to accomplish in each call. Whilst a full ethnography can be fruitful, it may not always be necessary, feasible, or appropriate. Even a modest spell of observation in the research setting can provide valuable insights into the broader context of practice. In one such study, GL spent time in the helpline centre she was studying with Paul Drew and Katie Ekberg, listening in to calls and getting to know staff informally and through semi-structured interviews, before embarking on a detailed CA of helpline calls [7, 8, 27].

10.7 Sharing CA to Inform Health Care Practice

Health care practice is often influenced by policy initiatives and guidelines describing best practice for the treatment of certain conditions. A CA approach can be useful here as a window into practice. CA findings can falsify or correct often long-held assumptions (e.g. that patients are more likely to request sickness certification than doctors are to offer it, [28] or more likely to push for antibiotics than doctors are to prescribe them [29]), offer a more detailed picture, a new dimension, or a description of specific communication practices not provided by abstract concepts such as shared decision-making or patient-centredness. Examples from this type of analysis have also been shown to have value when shared with practitioners and policy-makers in workshops or training events [30–40]. By sharing real examples of health care communication practices, researchers can render ‘visible and reportable’ practices that participants may not have had the opportunity to reflect on and learn from [7, 27]. CA informed findings have been used to successfully train a range of health care practitioners in the UK and internationally. There are too many to mention but these include training to change behaviour in the fields of mental health, end of life care, language and communication disorders, general practice, dementia care and many more besides. The Conversation Analytic Roleplay Method (CARM) co-developed by Elizabeth Stokoe and Rein Ove Sikveland also directly draws on CA and has been used to train a range of medical and non-medical practitioners; this has helped to further highlight the utility of CA for optimising communication (see https://www.carmtraining.org/). Often CARM utilises a researcher facilitated training workshop approach, while others have developed websites/manuals and these are made available to practitioners to use locally ‘on the ground’. It can be gratifying when participants provide feedback about the utility of viewing real-time interaction by saying things such as, ‘Oh yes. I do that, I just didn’t realise I did!’, or, ‘I didn’t realise that that would have such an impact on how the interaction worked out’, or, ‘I am much more aware in my practice now that I know the impact of my communication approach’. One such example involved GL teaching Masters students at the Institute of Cancer Research for several years, using real examples of talk from outpatient oncology consultations on how oncologists tended to follow relatively uncertain or bad tidings with better or more optimistic tidings and how this enabled a smoother transition to next activities. Year after year, oncologists signalled the value of having the opportunity to look at real practice and to discuss the impact of their communication practices on themselves and their patients [17].

Similarly, in the study of calls to cancer helplines mentioned above, CA was used to develop training for senior managers and call handlers. For example, the analysis showed that staff and callers found it interactionally difficult to ask and answer questions about ethnicity [25]. Using transcripts of real calls, staff were trained how to ask the ethnicity monitoring question in a way to optimise the comfort of both speakers and increase the validity of the ethnicity data collected.

10.8 Conclusion

CA is a robust scientific method for systematically interrogating talk-in-interaction. It requires technical skills that can be gained through specialist training and practice. As well as providing detailed documentation of routine medical practice [41, 42], it has proved especially useful in understanding the more challenging moments between health care providers and patients [43]. CA can be used in a standalone study design or in mixed methods studies. CA methods can be incorporated across the research cycle from primary research to the design of a communication-based intervention, including training interventionists, assessing implementation fidelity, and guiding its evaluation. Findings from applied CA studies can be incorporated into provider training programmes, thereby effecting changes in future health care practice [44].

10.9 Further Considerations for CA Research

There is now evidence of CA's utility for improving and supporting effective communicative practice in a range of healthcare settings. Further research is needed to explore how to evaluate and demonstrate the longer-term sustainable impact of CA researchers' endeavours to optimise communication behaviour. A further challenge for researchers wishing to use conversation analysis to examine medical interaction is how to convince colleagues and funders it can be a worthwhile approach. A powerful point made sometime ago by David Silverman seems relevant here. Silverman's critical constructionist approach and his appeal to work with naturally occurring data provides a compelling argument that if scientists rely solely on self reports (in interviews and focus groups) (in the canon of what he terms an "emotionalist" approach) to find out what people think rather than what they do, the scientific community will inevitably continue to tinker at the edges of the phenomenon of interest and the 'phenomenon will escape' [45].

References

1 Jefferson, G. (2004). Glossary of transcript symbols with an introduction. In: *Conversation Analysis: Studies from the First Generation* (ed. G. Lerner), 13–31. Amsterdam: John Benjamins Publishing Company.

2 Barnes, R.K. (2019). Conversation analysis of communication in medical care: Description and beyond. *Research on Language and Social Interaction* **52** (3): 300–315.

3 Sidnell, J. and Stivers, T. (eds.) (2013). *The Handbook of Conversation Analysis*. Oxford: Wiley Blackwell.

4 Robinson, J.D. (2003). An interactional structure of medical activities during acute visits and its implications for patients' participation. *Health Communication* **15** (1): 27–59.

5 Wheat, H., Barnes, R.K., and Byng, R. (2015). Practices used for recommending sickness certification by general practitioners: a conversation analytic study of UK primary care consultations. *Social Science and Medicine* **126**: 48–58.

6 Stivers, T. and Majid, A. (2007). Questioning children: interactional evidence of implicit bias in medical interviews. *Social Psychology Quarterly* **70** (4): 424–441.

7 Leydon, G., Ekberg, K., and Drew, P. (2013). "How can I help?" Nurse call openings on a cancer helpline and implications for call progressivity. *Patient Education and Counseling* **92**: 23–30.

8 Woods, C.J., Drew, P., and Leydon, G. (2015). Closing calls to a cancer helpline: expressions of caller satisfaction. *Patient Education and Counseling* **98** (8): 943–953.

9 Toerien, M., Shaw, R., and Reuber, M. (2013). Initiating decision-making in neurology consultations: 'recommending' versus 'option-listing' and the implications for medical authority. *Sociology of Health and Illness* **35** (6): 873–890.

10 Robinson, J. and Heritage, J. (2014). Intervening with conversation analysis: the case of medicine. *Research on Language and Social Interaction* **47** (3): 201–218.

11 Heritage, J., Robinson, J.D., Elliott, M.N. et al. (2007). Reducing patients' unmet concerns in primary care: the difference one word can make. *Journal of General Internal Medicine* **22**: 1429–1433.

12 McCabe, R., Priebe, S., John, P. et al. (2016). Training to enhance psychiatrist communication with patients with psychosis (TEMPO): cluster randomised controlled trial. *BJ Psychiatry* **209** (6): 517–524.

13 Leydon, G.M., Stuart, B., Summers, R.H. et al. (2018). Findings from a feasibility study to improve GP elicitation of patient concerns in UK general practice consultations. *Patient Education and Counseling* **101** (8): 1394–1402.

14 Robinson, J. and Heritage, J. (2015). How patients understand physicians' solicitations of additional concerns: implications for up-front agenda setting in primary care. *Health Communication* **31** (4): 434–444.

15 Barnes, R.K., Jepson, M., Thomas, C. et al. (2018). Using conversation analytic methods to assess fidelity to a talk-based intervention for frequently attending patients. *Social Science and Medicine* **11** (206): 38–50.

16 Jepson, M., Salisbury, C., Ridd, M.J. et al. (2017). The 'one in a million' study: creating a database of UK primary care consultations. *British Journal of General Practice* **67** (658): e345–e351.

17 Leydon, G. (2008). Yours is potentially serious but most of these are cured': optimistic communication in UK outpatient oncology consultations. *Psycho-Oncology* **17** (11): 1081–1088.

18 Parry, R., Pino, M., Faull, C., and Feathers, L. (2016). Acceptability and design of video-based research on healthcare communication: evidence and recommendations. *Patient Education and Counseling* **99** (8): 1271–1284.

19 Atkinson, J.M. and Heritage, J. (eds.) (1984). *Structures of Social Action: Studies in Conversation Analysis*. Cambridge: Cambridge University Press.

20 Labov, W. (1972). *Sociolinguistic Patterns*. Philadelphia: University of Pennsylvania Press.

21 McCambridge, J., Witton, J., and Elbourne, D.R. (2014). Systematic review of the Hawthorne effect: new concepts are needed to study research participation effects. *Journal of Clinical Epidemiology* **67** (3): 267–277.

22 Heritage, J. (1984). *Garfinkel and Ethnomethodology*. Cambridge: Polity Press.

23 Murdoch, J., Barnes, R.K., Pooler, J. et al. (2014). Question design in nurse and GP-led telephone triage for same-day appointment requests: a comparative investigation. *BMJ Open* **4**: e004515.

24 Murdoch, J., Barnes, R.K., Pooler, J. et al. (2015). The impact of using computer decision-support software in primary care nurse-led telephone triage: interactional dilemmas and conversational consequences. *Social Science and Medicine* **126**: 36–47.

25 Barnes, R.K. (2017). Preliminaries to treatment recommendations in UK primary care: a vehicle for shared decision-making? *Health Communication* **33** (11): 1366–1376.

26 Whalen, M.R. and Zimmerman, D.H. (1987). Sequential and institutional contexts in calls for help. *Social Psychology Quarterly* **50**: 172–185.

27 Leydon, G., Ekberg, K., Kelly, M., and Drew, P. (2013). Improving ethnic monitoring for telephone-based healthcare: a conversation analytic study. *BMJ Open* **3**: e002676.

28 Wheat H.C. The interactional management of 'early' mental health issues in GP-patient consultations.' PhD thesis, Peninsula Medical School, University of Plymouth. 2012.

29 Stivers, T. (2002). Participating in decisions about treatment: overt parent pressure for antibiotic medication in pediatric encounters. *Social Science and Medicine* **54**: 1111–1130.

30 Albury, C., Stokoe, E., Ziebland, S., et al. (2018). GP-delivered brief weight loss interventions: a cohort study of patient responses and subsequent actions, using conversation analysis in UK primary care. *Br J Gen Pract.* **68** (674): e646–e653.

31 O'Brien, R., Goldberg, S.E., Pilnick, A., et al. (2018). The VOICE study – A before and after study of a dementia communication skills training course. *PLoS ONE* **13** (6): e0198567.

32 Parry, R. (2016). VERDIS: Video-based communication research and training in decision-making, empathy and pain management in supportive and palliative care. End of award report. Retrieved from https://www.nottingham.ac.uk/research/groups/ncare/projects/video-research.aspx (accessed 12 November 2019).

33 Leydon, G., Stuart, B., Summers, R. H., et al. (2018). Findings from a feasibility study to improve GP elicitation of patient concerns in UK general practice consultations. *Patient Education and Counselling* **101**: 1394–1402.

34 Jenkins, L., and Reuber, M. (2014). A conversation analytic intervention to help neurologists identify diagnostically relevant linguistic features in seizure patients' talk. *Research on Language and Social Interaction* **47** (3): 266–279.

35 Heritage, J., Robinson, J. D., Elliott, M. N., et al. (2007). Reducing patients' unmet concerns in primary care: The difference one word can make. *Journal of General Internal Medicine* **22** (10): 1429–1433.

36 McCabe, R., John, P., Dooley, J., et al. (2016). Training to enhance psychiatrist communication with patients with psychosis (TEMPO): cluster randomised controlled trial. *British Journal of Psychiatry* **209** (6): 517–524.

37 Pilnick, A., Trusson, D., Beeke, S., et al. (2018). Using conversation analysis to inform role play and simulated interaction in communications skills training for healthcare professionals: identifying avenues for further development through a scoping review. *BMC Medical Education* **18** (1): 267.

38 Beeke, S. L., Sirman, N., Beckley, F., et al. (2018). The impact of Better Conversations with Aphasia on current practice by UK speech and language therapists. Presented at: International Aphasia Rehabilitation Conference (IARC). Aphasiology **32** (sup1): 16–17.

39 Bloch, S. and Leydon, G.M. (2019). Conversation Analysis and Telephone Helplines for Health and Illness: A Narrative Review. Research on Language and Social Interaction **52** (3): 193–211.

40 Stevenson, F., Hall, L., Sequin, M., et al. (2019). Practitioner's use of online resources during medical visits: managing the boundary between inside and outside the clinic. *Sociol Health Illn*. **41** (Suppl 1): 65–81.

41 Heritage, J. and Maynard, D.W. (eds.) (2006). *Communication in Medical Care: Interaction Between Primary Care Physicians and Patients*. Cambridge: Cambridge University Press.

42 Toerien, M., Reuber, M., Shaw, R., and Duncan, R. (2018). Generating the perception of choice: the remarkable malleability of option-listing. *Sociology of Health and Illness* **40**: 1250–1267.

43 Pino, M., Parry, R., Land, V. et al. (2016). Engaging terminally ill patients in end of life talk: how experienced palliative medicine doctors navigate the dilemma of promoting discussions about dying. *PLoS One* **11** (5): e0156174.

44 O'Brien, R., Goldberg, S.E., Pilnick, A. et al. (2018). The VOICE study – a before and after study of a dementia communication skills training course. *PLoS One* **13** (6): e0198567.

45 Silverman, D. (2006). Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction (Third edition). London: Sage, pp. 428 pages.

Further Reading

Sidnell, J. (2010). *Conversation Analysis: An Introduction*. Oxford: Wiley Blackwell.

Sidnell, J. and Stivers, T. (eds.) (2013). *The Handbook of Conversation Analysis*. Oxford: Wiley Blackwell.

Online Resources

http://emcawiki.net/Main_Page

11

Synthesising Qualitative Research

Nicholas Mays[1] *and Catherine Pope*[2]

[1] *Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK*
[2] *Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK*

11.1 Introduction

Qualitative research is, by its very nature, often focused on individual cases such as a single setting or a specific group of patients or health care practitioners. Even larger scale qualitative pieces of work – such as studies involving relatively large numbers of interviews or multiple settings – often focus on the minutiae of everyday life and provide detail about a unique local context and moment in time. As other chapters in this book attest, this kind of rich description is one of the strengths of qualitative research. However, one of the drawbacks is that this can produce fascinating, insightful, but hard-to-generalise studies. Even when it is possible to find a group of such studies on a similar topic and carried out in comparable settings or with similar respondents, the highly specific and context-dependent nature of the research can make it difficult to grasp the cumulative message from such a body of evidence. This can pose problems for those wishing to use the findings of qualitative research – for example, to inform policy-making or decisions about health care provision. Questions that might be asked are: what do a set of studies conducted in different countries about specific health care reforms and innovations tell us about how organisational change in general happens in health systems; or, what do the individual studies of patients'

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

attitudes to taking medicines tell us about the patient experience of medicine-taking overall?

One way of attempting to answer these kinds of questions might be to conduct a narrative review of literature, perhaps identifying key themes from each of the studies included. However, whilst such reviews can bring findings of different studies together, such literature reviews do not necessarily *integrate* evidence or develop new cumulative knowledge. In quantitative health research, systematic reviewing techniques have been developed, such as meta-analysis, to pool the results of randomised controlled trials [1], which enable the appraisal and integration of quantitative evidence on the effectiveness of treatments. The rationale is that the combined estimate of the effect of an intervention is better than relying on individual studies. These approaches have become highly standardised with the aims of ensuring that the process is adequately documented and that the findings are valid and reliable, as far as possible. Quantitative systematic reviews can also encompass non-experimental research findings, though in these cases it is seldom possible to pool the data from studies with different designs. Systematic reviews in the health care field tended initially to include only quantitative findings, but recently there have been attempts to include qualitative research in systematic reviews, where relevant [2, 3].

Alongside the development of largely quantitative systematic review methods, researchers have also begun to explore methods that allow the integration or *synthesis* of qualitative research evidence. This chapter looks at some of the main methods of synthesis that have been applied to qualitative research in the health care field, as well as methods for synthesis of qualitative and quantitative research. Before doing so, it is worth reflecting on whether the enterprise of synthesis of qualitative research is justifiable in the first place.

11.2 Should We Synthesise Qualitative Research at all?

There are arguments about whether it is feasible or desirable to synthesise evidence from multiple qualitative research studies, just as there are arguments about whether it is legitimate to mix different qualitative, and qualitative and quantitative methods in a single primary research study (see Chapter 12 on mixed methods). Some contend that aggregation or integration destroys the integrity of individual qualitative studies, and that differences in theoretical outlook and method between studies fundamentally militate against synthesis. This position is discussed in Chapter 15 on the assessment of the quality of qualitative research. For those who hold that each qualitative study is a unique representation of multiple realities or truths, the idea of synthesising several studies is anathema. However, as we make clear in Chapters 2 and 15, there is a defensible 'subtle realist' position [4] which we adopt, which holds that there is ultimately an underlying social reality which research studies attempt in different ways to apprehend. For this reason, we believe it is possible to undertake qualitative synthesis.

Moreover, as applied researchers working in health care research and policy environments, we believe that a significant proportion of research should be directed towards answering questions and supporting decision making relevant to health services and policy. We are also conscious that much health care research is not cumulative and does not build on work undertaken before. Even with the rise of electronic search engines and information technology, studies frequently do not reference or discuss other comparable research in the same field [5]. In addition, qualitative research reports can be difficult to locate [6–8]. For all these reasons, we hold that synthesis is a generally desirable and increasingly important part of qualitative health care research.

11.3 The Purposes of Synthesis

Synthesis can be conducted for different reasons with different sorts of outputs in mind. It may be focused on identifying gaps in knowledge or areas for further research. It can be conducted to summarise the implications of the qualitative evidence as part of a broader review process that includes a systematic review or other analyses of quantitative evidence (see below on syntheses of qualitative and quantitative evidence). Or, it may aim directly to inform policy or programme decision-making. As a result, there are many different audiences for synthesis. These can include other researchers, health care practitioners or providers of services, managers, policy-makers and research funders. In addition to attending to the reason for the synthesis, it is worth recognising that these different audiences may have different needs in terms of how the synthesis is conducted and expressed.

Most qualitative synthesis depends on comparison, identifying the similarities and differences between the findings of different studies related to their particular contexts. This leads to three broadly different purposes when undertaking synthesis: *aggregative, configurative,* and *integrative,* helpfully distinguished by Booth et al. [9]. *Aggregative* synthesis is primarily a mapping of the evidence in an area, perhaps for a scoping review. It would focus on questions such as: what are the main types of studies on this topic; what are the main themes that emerge from these studies; and are there any obvious gaps in the evidence (e.g. settings and/or populations that are absent)? *Configurative* synthesis focuses on trying to produce a comprehensive explanation for a phenomenon by trying to answer questions like: how do the different themes identified across studies relate to one another; and what are the main areas of agreement and disagreement between studies, and how can they be explained? *Integrative* synthesis aims to bring together data produced using different methods (including qualitative and quantitative studies) to generate additional insights. This can explore whether the findings produced using different methods can be reconciled or are contradictory.

The later parts of this chapter consider four main methods that can be used to synthesise qualitative research: narrative synthesis; framework synthesis; cross-case analysis; and meta-ethnography. These are followed by a brief overview of methods for mixed, qualitative, and quantitative synthesis. In general, qualitative synthesis is more iterative and less strictly linear in execution than quantitative synthesis. However, all the methods depend on a number of generic synthesis activities which are now discussed.

11.4 Generic Issues in Qualitative Synthesis

11.4.1 Refining the Research Question and Search Strategy

Although this may not always be possible at the outset, it is important eventually to specify the question(s) underpinning the synthesis in some detail. Sometimes, questions are adapted or re-framed during the process of collecting and analysing the evidence, but, as with other aspects of qualitative research, it is important to be clear ultimately about the question(s) addressed. Preliminary scoping of potential literature sources can help the process of refining the question(s) prior to a more extensive search.

The strategy for searching and decisions about which literature is relevant are partly dependent on the research question and partly on the nature of the literature (e.g. if it crosses a number of disciplines, it may be necessary to sample purposively, assuming it is possible to construct a robust sample frame, since it may not be feasible to be exhaustive [10]). As in other aspects of qualitative synthesis, such as quality assessment of studies (see below), there is a lively debate about the appropriateness and feasibility of following an approach to searching derived from the methods of quantitative systematic reviews. For example, there is the possibility in qualitative synthesis of reaching 'saturation' in which extra studies do not appear to be adding to the explanation of the phenomenon of interest – at which point searching might be stopped. However, this decision should not be taken lightly since electronic searching for qualitative literature is known to be inefficient as databases have been slow to index qualitative research appropriately.

For this reason, hand-searching of journals and citation chasing is strongly advised, alongside consulting subject area experts, whilst attempting to refine the terminology for database searches. It is worth remembering that much qualitative literature is published in monographs, book chapters, or theses, rather than journal papers. In contrast to some systematic reviews – for example of changing technologies, which might focus on the latest findings – qualitative synthesises can cover long time periods, partly to ensure that early 'classic' studies, which may make a significant theoretical contribution, are included [11]. Given that one part of the rationale for qualitative syntheses is the observed lack of citation of earlier studies in the primary literature and thus the lack of cumulative learning, reviewers would be well advised to err on the side of greater breadth in searching for relevant primary studies [12].

11.4.2 Data Extraction

Carefully planned, consistent data extraction from reports of studies underpins a systematic approach to any review. The challenge in qualitative synthesis is how to select sufficient, but not overwhelming, data from the included studies. The data extraction form needs to be tailored to the topic and the types of research encountered. Whereas some parts of it may be very similar to quantitative review data extraction forms (e.g. description of the research questions, location, methods of data collection and analysis), the findings section is likely to comprise chunks of text relating to the main themes and/or concepts, divided between reviewer summaries and supporting verbatim quotes from the original study report. Even with a data extraction form, it is often necessary to return to the full text of a paper or report during the analysis. Data extraction itself may take place iteratively, starting with more basic information and adding more complex information as initial analysis progresses.

11.4.3 Quality Appraisal of Studies

There is ongoing debate as to the worth of appraising the literature for quality, particularly if this is with a view to excluding poor-quality studies before undertaking the synthesis of findings [5, 8, 13, 14]. Some authors argue that exclusion on the grounds of some measure of quality should not be done, even though it is a common feature of quantitative systematic reviews, and, instead, that the value of specific pieces of research will only become apparent during the synthesis process. There is also some evidence that qualitative research appraisal tools may not so much assess the quality of a study as the amount of methodological detail in the research report [15]. One way through this controversy is to include what appear to be 'weaker' studies as long as their relative quality (e.g. in terms of meaningfulness or usefulness) is clear when they are used. As discussed in Chapter 15, there are various checklists and guidelines for assessing qualitative research quality, and the Critical Appraisal Skills Programme (CASP) Qualitative Research Checklist [16] is probably the most widely used in qualitative synthesis. Such appraisal can be helpful in ensuring that the researchers conducting the synthesis are familiar with the strengths and weaknesses of each of the studies collected for the synthesis, but there does not seem to be compelling evidence that the results of such appraisal should be the only arbiter of inclusion versus exclusion.

11.4.4 Analysis and Interpretation

As the analysis progresses, usually by continuously reading, re-reading, and comparing the data extraction forms and the study reports, the dataset evolves from being a group of separate studies towards a set of codes and patterns that encompasses the body of evidence on a subject. These can be summarised in a number of different ways, including using tables, mind-maps, and logic models (see Section 11.6.2), before proceeding to more sophisticated methods of synthesis such as thematic synthesis or meta-ethnography, outlined below. These more sophisticated methods are designed to generate new explanations or theories that try to account for the whole body of findings. They emphasise not only identifying the similarities between studies, but also encouraging the analyst to seek out and attempt to explain 'deviant' cases that appear to contradict the emerging interpretations. This is a very important aspect of the synthesis process. The approach to analysis in qualitative synthesis has much in common with the analysis of raw data in primary qualitative research (see Chapter 9 on analysis).

11.5 Methods for Synthesising Qualitative Research

11.5.1 Narrative Synthesis

All reviews depend on narrative to varying degrees. *Narrative synthesis* is strongly rooted in a narrative or story-telling approach and seeks to generate new insights or knowledge by systematically and transparently bringing together existing research findings. Narrative synthesis aims to move beyond the study-by-study summaries found in traditional narrative literature reviews to identify the key themes in the body of evidence (which is why it is sometimes referred to as *thematic synthesis,* similar to thematic analysis of primary qualitative data). Hammersley describes this process as akin to fitting together the findings of each study to produce a mosaic which produces a new picture distinct from the original pieces [17]. There is helpful guidance for undertaking narrative synthesis, including worked applications of this approach [18]. Narrative synthesis has the major advantage that it can be used with qualitative, quantitative, and mixed bodies of research.

Meta-narrative mapping or review [19] is a specific form of narrative synthesis which is particularly useful when confronted with an extensive literature across a number of different disciplines and research traditions. It is suited to the synthesis of qualitative and quantitative research (see below). In meta-narrative mapping, the focus is on drawing out the central theories or causal mechanisms identified within multiple studies and building an explanation of the body of research by telling the story of the evolution of the field of enquiry or mapping the domains covered by the literature in an area. In a meta-narrative mapping of the large, diverse literature on innovation in health care compared with innovation in other sectors, the resulting synthesis identified 13 different research traditions and 7 key dimensions relating to spread and sustainability of innovation and related organisational change [10]. The authors were able to assemble these disparate elements in a narrative structure, both chronologically and thematically (i.e. describing the theoretical development from early and more recent literature and identifying thematic groupings) to tell the story of this extensive but complex literature.

11.5.2 Framework Synthesis

Whereas methods such as thematic synthesis are frequently strongly inductive in approach, *framework synthesis,* like its primary research counterpart – framework analysis (described in Chapter 9), is highly structured and largely deductive. It uses a ‘framework’ determined in advance to organise and guide the analysis of the data, though additional themes or concepts can be added more inductively. The idea is that it provides a more manageable way of handling the very large amount of textual material typically generated by qualitative studies. This is particularly attractive when time is short and when the research questions are strongly externally directed, as in a review commissioned by a policy agency. A good example is a review of children’s, adolescents’, and parents’ views of walking and cycling undertaken to complement a quantitative synthesis of the effectiveness of interventions to increase walking and cycling and reduce car dependence [20].

11.5.3 Qualitative Cross-Case Analysis

Qualitative cross-case analysis presents the findings from multiple cases (i.e. different studies) to develop new explanations for an entire body of findings. It typically uses some form of matrix display, such as those advocated by Miles and Huberman [21]. Although developed for analysing primary qualitative data from a number of case studies, the same tabular ways of representing data can be used to explore and compare relationships between the findings of different studies. Matrices or charts are used to display variables, themes or concepts from a series of studies to facilitate systematic comparison. Yin [22] describes this process as akin to the constant comparative approach used in Grounded Theory (see Chapter 9 for more on Grounded Theory). He suggests using pattern matching (i.e. searching for similar variables) to group together key concepts with the aim of identifying the core or essential elements and thereby developing new concepts or explanations from the findings of a set of studies.

11.5.4 Meta-ethnography

Meta-ethnography [23] is a more ambitious, highly interpretive, inferential method of qualitative synthesis that has been used increasingly in recent years, in particular to provide a better understanding of patient experience to inform policy [24]. It uses primary qualitative research techniques to re-analyse multiple qualitative reports with the aim of moving beyond simpler aggregation towards the integration of a body of knowledge. The name is slightly misleading in that it implies, wrongly, that the approach can only be used with ethnographic studies. It also unfortunately engenders some confusion with the term 'meta-analysis', which is a statistical technique for demonstrating the average effect of an intervention derived from individual experimental studies.

A helpful worked example of meta-ethnography is provided by Britten et al. [25]. It involves induction and interpretation (i.e. re-analysis) of the published reports of previous studies, thereby demonstrating the main procedures of meta-ethnography. A key feature of meta-ethnography is the use of *reciprocal translation* – a process in which different studies are translated or interpreted into one another. This entails systematically searching through each study in the synthesis, extracting key findings and interpretations, and comparing each with the rest in order to develop a set of overarching concepts or overlapping areas. Reciprocal translation is most straightforward when two or more studies each use the same terms or concepts to describe or explain a phenomenon. It becomes more demanding when similar ideas or concepts are given different terms (e.g. taken from different disciplines) or when different ideas are given the same terminology. This process resembles the constant comparison methods used in primary qualitative research approaches such as Grounded Theory. Each finding (e.g. a concept or interpretation) is examined to see whether it is like (or unlike) those in the other studies, and these are matched, merged, and adapted to enable the generation of a new, combined set of interpretations. As additional studies are analysed, concepts and explanations for the set of findings are modified so as to continue to be able to include all the studies.

The product of a meta-ethnography may be simply this reciprocal translation, but more often this can be developed further into a new *line of argument* synthesis. The originators of the approach [23] also suggest that it is possible to use meta-ethnography to demonstrate and explain opposing interpretations in the literature (this is called *refutational synthesis*).

An example of a line of argument synthesis is provided by Pound et al.'s [5] meta-ethnography of published literature reporting patients' views of taking medicines prescribed for short- or long-term conditions. This identified seven main groups of papers related to corresponding groups of medicines/conditions and used this body of evidence to develop a new model of medicine-taking and to expound the novel concept of patient *resistance* to medicines. The idea of resistance is that patients actively engage with medicines – that is, they deliberately modify and adapt their prescribed medication-taking because of complex understandings, meanings, and beliefs, which they bring to medicine-taking. According to this 'line of argument', non-adherence with regimens is not simply the result of a passive failure to take medicines, but is the result of active decision-making by the patient.

11.6 Synthesis of Qualitative and Quantitative Evidence

As discussed in Chapter 12, there is some controversy about whether to combine qualitative and quantitative methods in primary studies, and these concerns are writ large whenever the subject of integrating qualitative and quantitative evidence from more than one study is mooted. Qualitative–quantitative synthesis is the logical extension of a mixed method approach to primary research and offers considerable potential benefits to policy and health care decision-making, where issues of appropriateness, acceptability, and fairness can be as important as questions of the effectiveness of policies and programmes [16]. However, there is no single, agreed framework for synthesising these diverse forms of evidence and the exercise demands technical expertise across a wide range of quantitative and qualitative research. Methods for synthesising qualitative and quantitative research are at a relatively early stage of development.

There are four overall strategies for integrating qualitative and quantitative data in a review: integrating at the level of the review itself; using a common framework or model; integrating through 'translation' of the data; and using a method designed specifically for integration [26]. The choice of approach will depend on the aim of the review and the type of evidence available.

11.6.1 Integrating at the Review Level

This approach is probably the least conceptually demanding and the most frequently used. It comprises a review of quantitative evidence (usually of effectiveness studies, which could include a meta-analysis of randomised controlled trials), a qualitative review (e.g. to identify potential explanations for variations in outcomes between the quantitative studies), and, finally, an integrating, largely narrative review bringing the two separate reviews together. This is the approach developed by the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) at University College London's, Institute of Education [27, 28]. Harden et al.'s review, which combined a meta-analysis of trial data with a thematic analysis of qualitative studies to identify barriers to, and facilitators of, healthy eating amongst children is a good example of this type of narrative-based synthesis of qualitative and quantitative research [2]. A methodological and conceptual matrix was used to juxtapose the findings of the qualitative 'views' studies against the findings of the quantitative 'outcome' studies. Three questions guided the synthesis: (i) which interventions promoting an increase in children's consumption of fruit and vegetables match recommendations derived from children's views and experiences of healthy eating; (ii) do those interventions which match children's views show bigger effect sizes and/or better explain heterogeneity between studies than those which do not; and (iii) which recommendations derived from children's views have yet to be addressed by interventions evaluated by outcome studies?

11.6.2 Integrating Using a Common Structure, Framework, or Model

This approach brings qualitative and quantitative data together using devices such as matrices, logic models, concept maps, flow charts, and other diagrammatic representations of the relationships between phenomena. For example, a logic model could be developed drawing on qualitative and quantitative findings of studies in the form of a 'production function' tracing the relationships between inputs, processes (shaped by contextual factors), outputs (consequences), and outcomes (e.g. impacts on the health and wellbeing of patients and carers). Baxter and colleagues developed a logic model of the impact of patient demand management interventions in general practice based on qualitative and quantitative study findings [29]. Findings from qualitative and quantitative studies of different types were summarised textually. This was followed by a qualitative process of charting and categorising the findings and then a thematic analysis was undertaken to identify the different components in the logic model (see Figure 11.1).

The flow chart in Figure 11.1 shows the mechanisms of change along the pathway between demand management interventions and their outcomes, as well as the moderating or mediating factors that may influence these outcomes. The attraction of logic models is that they are able to summarise a great deal of evidence in a single, relatively easily understood diagram.

11.6.3 Integrating Through 'Transformation' of Data

These methods either transform qualitative findings into quantitative form or, much less commonly, in the opposite direction to enable a synthesis to take place. Converting all the evidence into quantitative (i.e. numerical) form can be carried out using techniques such as *quantitative case survey* – a process in which a set of structured questions is used to extract 'observations' from a set of qualitative studies which are then converted into numerical form and analysed statistically.

Another quantitative approach to synthesising qualitative and quantitative evidence is to use *content analysis* – a technique for categorising the data into themes which can then be counted and converted into frequencies to identify dominant issues across a number of studies. Such methods are criticised by most qualitative researchers for being reductionist, stripping the nuances and complexity from qualitative studies.

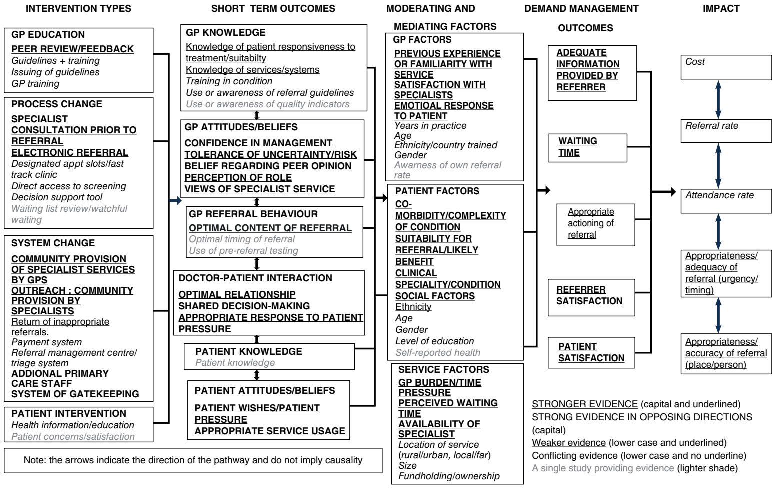

Figure 11.1 Synthesis of qualitative and quantitative study findings on demand management interventions using a logic model. *Source:* Baxter et al. [29].

11.6.4 Using an Integrative Method

This group of approaches are the most ambitious in that they attempt to develop an explanation for the qualitative and quantitative evidence which does not require the findings of either type of study to be refashioned. *Critical interpretive synthesis,* developed by Dixon-Woods and colleagues, is an example of this approach in which the unit of analysis is not so much the individual studies as the body of qualitative and quantitative evidence on the topic as a whole. The goal, as the title suggests, is to critique a relatively large body of evidence that could not be handled via the rigid procedures of a conventional systematic review [30]. It largely uses the analytical approach of meta-ethnography (see above).

Similar narrative syntheses include *meta-narrative mapping/review* discussed earlier in this chapter [10] and would also encompass approaches such as Young's review of the qualitative and quantitative literatures on illness behaviour [31]. This incorporated studies from 1973 onwards, covering a range of disciplinary approaches – including sociological, geographical, and economic research – to develop an integrated hierarchical model of illness behaviour.

Bayesian synthesis, sometimes referred to as *Bayesian meta-analysis,* is another method used to accommodate quantitative and qualitative data in a single review process. It applies the principles of Bayesian analysis to synthesis. It starts by using qualitative findings to identify potentially important factors likely to affect a particular impact or outcome in the form of a probability distribution (a set of 'priors' or estimates of these factors' relative importance and likelihood of being valid). It then uses the quantitative evidence in the form of a meta-analysis to confirm or modify these prior assumptions about the relationships between variables. Bayesian synthesis is designed mainly for *decision support* [32]. Though it has been little used to date, it has potential to inform policy or practice decision-making and can incorporate expert or public opinion as well as qualitative research evidence into the quantitative modelling/analysis [33]. One such synthesis used the method to assess factors affecting uptake of immunisation [34] by using the findings from qualitative studies of immunisation uptake to inform a prior distribution (a numerical ranking of factors affecting immunisation uptake from individual studies). These prior probabilities were then combined with probabilistic data extracted from quantitative studies and analysed together to identify and gauge the importance of a wider range of factors linked to uptake than either the qualitative or quantitative literatures could have provided alone.

Realist synthesis is another integrative approach to synthesis of qualitative and quantitative studies with other sources of data to identify and assess the effects of an underlying social 'mechanism' that generates change differentially in different contexts. It builds on realist evaluation and has been proposed particularly for evaluating the effectiveness of policies by identifying and testing context–mechanism–outcome relationships or theories of change. [35] Such reviews are devoted to trying to find out where, when and for which people a policy or programme is likely to be effective, based on understanding how the mechanism of change underlying the policy or programme works. Training materials on realist synthesis and its reporting are available on the RAMESES (Realist And Meta-narrative Evidence Syntheses: Evolving Standards project) website (http://www.ramesesproject.org).

11.7 Conclusion

Ultimately, the choice of synthesis approach should relate to both the specific aim of the review and the nature of the available evidence. If only qualitative evidence is available or required, then one of the methods for qualitative synthesis described above may be appropriate. If a combination of qualitative and quantitative evidence is necessary to answer the question, it may be worth exploring the other approaches outlined, with the caveat that some of these are less well developed than narrative synthesis, meta-ethnography or cross-case analysis. For qualitative–quantitative synthesis, it may be that more than one approach will be required.

In general, as with the methods used in primary research, the methods for synthesis should be explicit and transparent, but the key stages should be seen as flexible, pragmatic, and iterative rather than strictly sequential. Inevitably, syntheses of complex bodies of evidence, whether solely qualitative, or combining qualitative and quantitative evidence, require experience and judgement on the part of the researcher.

References

1 Chalmers, I. and Altman, D.G. (1995). *Systematic Reviews*. London: BMJ Books.

2 Harden, A., Garcia, J., Oliver, S. et al. (2004). Applying systematic review methods to studies of people's views: an example from public health research. *Journal of Epidemiology and Community Health* **58**: 794–800.

3 Garcia, J., Bricker, L., Henderson, J. et al. (2002). Women's views of pregnancy ultrasound: a systematic review. *Birth* **29**: 225–250.

4 Hammersley, M. (1991). *What's Wrong with Ethnography?* London: Routledge.

5 Pound, P., Britten, N., Morgan, M. et al. (2005). Resisting medicines: a synthesis of qualitative studies of medicine taking. *Social Science and Medicine* **61**: 133–155.

6 Evans, D. (2002). Database searches for qualitative research. *Journal of the Medical Library Association* **3**: 290–293.

7 Shaw, R.L., Booth, A., Sutton, A.J. et al. (2004). Finding qualitative research: an evaluation of search strategies. *BMC Medical Research Methodology* **4**: 5.

8 Dixon Woods, M., Fitzpatrick, R., and Roberts, K. (2001). Including qualitative research in systematic reviews: problems and opportunities. *Journal of Evaluation in Clinical Practice* **7**: 125–133.

9 Booth, A., Sutton, A., and Papaioannou, D. (2016). *Systematic Approaches to a Successful Literature Review*, 2e, 217. London: SAGE.

10 Greenhalgh, T., Robert, G., Bate, P. et al. (2005). *Diffusion of Innovations in Health Service Organisations: A Systematic Literature Review*. Oxford: Blackwell.

11 Campbell, R., Pound, P., Pope, C. et al. (2003). Evaluating meta-ethnography: a synthesis of qualitative research on lay experiences of diabetes and diabetes care. *Social Science and Medicine* **56**: 671–684.

12 Britten, N., Garside, R., Pope, C. et al. (2017). Asking more of qualitative synthesis: a response to Sally Thorne. *Qualitative Health Research* **27**: 1370–1376.

13 Melia, K.M. (2010). Recognizing quality in qualitative research. In: *The SAGE Handbook of Qualitative Methods in Health Research* (eds. I. Bourgeault, R. Dingwall and R. de Vries), 559–574. London: SAGE.

14 Majid, U. and Vanstone, M. (2018). Appraising qualitative research for evidence syntheses: a compendium of quality appraisal tools. *Qualitative Health Research* **28** (13): 2115–2131.

15 Smith, K.E. and Anderson, R. (2017). Understanding lay perspectives on socioeconomic health inequalities in Britain: a meta-ethnography. *Sociology of Health and Illness* **40** (1): 146–170.

16 Critical Appraisal Skills Programme (CASP) Qualitative research checklist https://casp-uk.net/casp-tools-checklists. 2018 (accessed: 17 April 2019).

17 Hammersley, M. (2001). On 'systematic' reviews of research literatures: a 'narrative' response to Evans and Benefield. *British Educational Research Journal* **27**: 543–554.

18 Popay, J., Roberts, H., Sowden, A. et al. (2006). *Guidance on the Conduct of Narrative Synthesis in Systematic Reviews. A Product from the ESRC Methods Programme*. Lancaster: NSSR, Division of Health Research, University of Lancaster http://www.lancaster.ac.uk/shm/research/nssr/research/dissemination/publications.php (accessed 17 April 2019).

19 Greenhalgh, T. (2004). Meta-narrative mapping: a new approach to the synthesis of complex evidence. In: *Narrative Research in Health and Illness* (eds. B. Hurwitz, T. Greenhalgh and V. Skultans), 349–381. London: BMJ Publications.

20 Brunton, S., Oliver, S., Oliver, K., and Lorenc, T. (2006). *A Synthesis of Research Addressing children's, Young people's and parents' Views of Walking and Cycling for Transport*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London http://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/WalkingAndCyclingWEB.pdf (accessed 17 April 2019).

21 Miles, M.B., Huberman, A.M., and Saldana, J. (2013). *Qualitative Data Analysis: A Methods Sourcebook*, 3e. Thousand Oaks, CA: SAGE.

22 Yin, R.K. (2018). *Case Study Research and Applications: Design and Methods*, 6e. Thousand Oaks, CA: SAGE.

23 Noblit, G. and Hare, R. (1988). *Meta-Ethnography: Synthesising Qualitative Studies*. Newbury Park, CA: SAGE.

24 Wanat, M., Boulton, M., and Watson, E. (2016). Patients' experience with cancer recurrence: a meta-ethnography. *Psycho-Oncology* **25**: 242–252.

25 Britten, N., Campbell, R., Pope, C. et al. (2002). Using meta ethnography to synthesise qualitative research: a worked example. *Journal of Health Services Research and Policy* **7**: 209–215.

26 Mays, N., Pope, C., and Popay, J. (2005). Systematically reviewing qualitative and quantitative evidence to inform management and policy making in the health field. *Journal of Health Services Research and Policy* **10** (Suppl 1): 6–20.

27 Thomas, J., Harden, A., Oakley, A. et al. (2004). Integrating qualitative research with trials in systematic reviews. *BMJ* **328**: 1010–1012.

28 Thomas, J., Sutcliffe, K., Harden, A. et al. (2003). *Children and Healthy Eating: A Systematic Review of Barriers and Facilitators*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London http://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/FinalReport-webV2.pdf?ver=2010-11-25-155950-117 (accessed 17 April 2019).

29 Baxter, S.K., Blank, L., Buckley Woods, H. et al. (2014). Using logic model methods in systematic review synthesis: describing complex pathways in referral management interventions. *BMC Medical Research Methodology* **14**: 62.

30 Dixon-Woods, M., Cavers, D., Agarwal, S. et al. (2006). Conducting a critical interpretive synthesis of the literature on access to healthcare by vulnerable groups. *BMC Medical Research Methodology* **6**: 35.

31 Young, J.T. (2004). Illness behaviour: a selective review and synthesis. *Sociology of Health and Illness* **26**: 1–31.

32 Dowie, J. (2006). The Bayesian approach to decision making. In: *Public Health e: Changing the Health of the Public* (eds. A. Killoran, C. Swann and M. Kelly), 309–321. Oxford: Oxford University Press.

33 Voils, C., Hasselblad, V., Crandell, J. et al. (2009). A Bayesian method for the synthesis of evidence from qualitative and quantitative reports: the example of antiretroviral medication adherence. *Journal of Health Services Research and Policy* **14**: 226–233.

34 Roberts, K.A., Dixon-Woods, M., Fitzpatrick, R. et al. (2002). Factors affecting the uptake of childhood immunisation: a Bayesian synthesis of qualitative and quantitative evidence. *Lancet* **360**: 1596–1599.

35 Pawson, R. (2006). *Evidence-Based Policy: A Realist Perspective*. London: SAGE.

Further Reading

Booth, A., Sutton, A., and Papaioannou, D. (2016). *Systematic Approaches to a Successful Literature Review*, 2e. London: SAGE.

Pope, C., Mays, N., and Popay, J. (2007). *Synthesizing Qualitative and Quantitative Evidence: A Guide to Methods*. Maidenhead: Open University Press.

12

Mixed Methods Research

Alicia O'Cathain

School of Health and Related Research, University of Sheffield, Sheffield, UK

12.1 Introduction

Researchers can undertake standalone qualitative studies or combine qualitative research with quantitative research within mixed methods studies. There are various definitions of mixed methods research in use, with some researchers requiring that integration of qualitative and quantitative data or findings occurs within a study if the label 'mixed methods' is to be used. The definition of mixed methods used here is a study where there is quantitative data collection with statistical analysis and qualitative data collection with some form of thematic analysis. In a good quality mixed methods study, researchers also attend to integration of the qualitative and quantitative components.

A key justification for undertaking mixed methods research is that health care is complex, and therefore the types of research questions to be addressed are diverse. Quantitative and qualitative methods have strengths for addressing different types of research questions. The complexity of health care, including the need to understand how patients experience specific health conditions, how organisations provide health care, how context affects outcomes, or the complexity of interventions under evaluation, often requires that qualitative research is used in addition to quantitative research. This is most evident in evaluation of health care, which has moved over recent decades from only measuring the

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

effectiveness and cost-effectiveness of interventions to also assessing how processes related to context, mechanisms of impact, and implementation contribute to effectiveness [1].

12.2 Dealing with the 'Paradigm Wars'

In the 1980s, some researchers debated whether it was possible to undertake qualitative and quantitative research in the same study because they believed it was not feasible to combine paradigms. They argued that qualitative and quantitative research were founded on such different philosophies that this precluded integration of methods. This is no longer a widely held concern in many disciplines where mixed methods research is practised, including health related research. It is now widely understood that methods are not necessarily associated with paradigms and that mixed methods research can be undertaken within a variety of paradigms including pragmatic [2], dialectical [3], and transformative [4], as well as the more traditional paradigms of constructivism and post-positivism. 'Paradigm wars' tend not to concern most social researchers in health care. Discussions of the philosophical stance of researchers rarely appear in journal articles or reports to funders, but this does not mean that philosophical and epistemological problems do not occur when practising mixed methods research. These paradigm-related issues can play out, for example, in team dynamics as researchers from different academic and health care disciplines bring with them different sets of beliefs and values about how best to undertake research. This is discussed in more detail later in the chapter.

12.3 Getting to Grips with Mixed Methodology

There is a methodology for combining qualitative and quantitative methods, with excellent books offering brief introductions to the key issues [5], detailed overviews of why and how to undertake good quality mixed methods studies [6], and books focused specifically on issues pertinent to the health sciences [7]. The authors of these books usually address study design typologies, integration techniques, quality assessment, team working, and reporting of mixed methods studies; these are now discussed.

12.4 Mixed Methods Study Designs

There are specific mixed methods study designs in common use. An example is the sequential explanatory design [8], where a quantitative method such as a survey is followed by a qualitative method such as an interview study. The current fashion, however, is to describe very broad design types based largely on the timing of the methods within a study [6]. Sequential designs are where one method is completed before the second method. Concurrent or triangulation designs are where two methods are undertaken at the same time. The timing and type of integration of methods within a study may be design dependent. The use of broad descriptions of designs is likely due to the complexity of study designs in the real world. For example, a recently completed project addressing variation in the rates of patients not transported to hospital by the ambulance service – a practice known as non-conveyance – consisted of three sequential phases [9]. The first phase consisted of a qualitative interview study of managers, paramedics, and health care commissioners to understand the issues affecting variation and measurement of variation. This was followed in the second phase by three concurrent studies, two of which were quantitative and involved the analysis of routine data to test the factors explaining variation and the appropriateness of non-conveyance, and one qualitative study making use of non-participant observation and interviews to explore variation in one type of non-conveyance (telephone advice rather than sending an ambulance out to a patient). The third phase was a mixed methods component bringing together all the data about calls to ambulance services for a specific reason – breathing difficulties – from the different datasets in the earlier phases. The best way of describing these more complex designs is to express clearly the order in which the different components are undertaken and present a diagram of this for readers. Diagrams can be simple or can include data collection and analysis stages of each component and show where integration occurred within a study.

Examples of different designs are described below in the context of some of the types of research that health care researchers undertake.

12.4.1 Evaluation

Historically, the approach to evaluation in health care has been exclusively outcomes-focused, using randomised controlled trials (RCTs), or quasi-experimental designs, to measure the effectiveness of interventions and economic modelling to estimate cost-effectiveness. This approach has gradually been replaced by a tendency to employ mixed methods evaluation [1, 10, 11]. A common design is the concurrent use of outcome, process, and economic evaluation. Outcomes can be measured using RCTs, quasi-experimental or non-randomised designs. Concurrent process evaluations usually make use of both qualitative and quantitative data to explore the context in which the intervention is being implemented, how the intervention works, the feasibility and acceptability of the intervention, and how it is implemented in practice – including fidelity to planned implementation [12]. Some process evaluations are qualitative only, consisting of interviews with practitioners delivering an intervention, interviews with people receiving the intervention, and sometimes non-participant observation of intervention delivery. An example is the evaluation of a telehealth intervention for people with chronic conditions [13]. Two chronic conditions were studied within separate RCTs and the intervention was found to have a small effect size for one condition and improve some of the outcomes for the other condition [14, 15]. A qualitative process evaluation, or embedded qualitative study as they are sometimes called, identified the importance of human factors in facilitating or reducing engagement with the telehealth service [16]. Patients described how the enthusiasm of some health care staff involved in the intervention delivery encouraged them to use the intervention, in contrast to staff who appeared to be 'going through the motions'. The qualitative study, comprising 21 interviews with staff delivering the intervention or related health care, and 24 patients in the intervention arms of the two RCTs, offered an understanding of why the size of effect of the intervention was small rather than large and how service providers implementing the intervention in the real world might achieve that effect size or possibly improve upon it.

As well as using qualitative research concurrently with the outcome evaluation, it can also be used prior to the outcome evaluation. For example, it can be used in preparation for the full evaluation phase, either to help develop an intervention by interviewing the target population about their needs, or observing them using early versions of the intervention and interviewing them about the feasibility and acceptability of early prototypes [17]. At the feasibility phase of an evaluation, qualitative research can be used to further understand the feasibility and acceptability of the intervention to help refine the intervention prior to full evaluation, or to understand how to improve evaluation processes [18]. In policy evaluations, qualitative research may be useful in identifying variables of interest, such as potential intermediate indicators of impact or potential explanatory variables that can then be explored using routine data in a later phase of the evaluation.

The contributions of qualitative research in the specific context of an evaluation where outcomes are measured using an RCT have been explored in detail [19] and guidance offered on how to use qualitative research at the feasibility phase of an RCT [18]. In the latter situation, a key issue is a dynamic or iterative use of qualitative research alongside a pilot RCT so that the intervention and RCT conduct is refined continuously during the feasibility phase rather than at the end.

12.4.2 Survey and Interviews

There is a long history of using a combination of survey or routine data with qualitative research, often in a sequential design, to explore a health or health care issue. For example, a study of variation in rates of avoidable emergency admissions used statistical regression of routinely available data to identify factors explaining the differences between rates of admission in different emergency and urgent care systems [20]. This was followed by case studies of six systems which involved documentary analysis; qualitative interviews with a range of stakeholders such as GPs, emergency department staff, and health care commissioners; and the analysis of routine data for each case. The design was a specific one, called ethnographic or qualitative residual analysis, where the six cases for the second phase of the study were selected based on the size of the residuals in the regression analysis from the first phase. That is, integration was built into the design because sampling of the more qualitative phase of the study was dependent on findings from the quantitative first phase.

12.4.3 Development of Questionnaires and Measures

Sequential designs can consist of qualitative interviews or focus groups to generate domains (topics), questions, and language for a questionnaire that is then used within a survey. The qualitative component of the study is considered to be a mark of the quality of the questionnaire development, ensuring that the questionnaire is both relevant and comprehensible to potential respondents. Qualitative research can also be used for cognitive testing in questionnaire design where qualitative interviews are used to assess the validity of questions prior to finalising the questionnaire. A related application of qualitative research is in the development of outcome measures for health, quality of life, or satisfaction with services where a similar sequential design is usually used. For example, synthesis of qualitative research [21] was followed by interviews with mental health service users [22] in combination with other methods to develop a new measure of the quality of life of people with mental health problems.

12.5 Integration of Qualitative and Quantitative Data and Findings

Researchers need to consider when and how links will be made between components within a mixed methods study. Sometimes this integration is built into the study design; for example, the results of a survey may help identify the sample for a later in-depth interview component. Here, the integration occurs because the analysis of one method produces a sampling frame for the other method that might otherwise have been difficult to obtain. Integration is not built into concurrent designs and therefore researchers need to make extra efforts to undertake this in these cases – and be explicit about how and where the integration occurred. Techniques for integration have been identified that may be useful in health care research [23, 24]. Three techniques are described here.

First, the qualitative and quantitative components of a study can be analysed and the findings then triangulated using an adapted triangulation protocol [25]. This involves displaying all findings on the same page, within themes, and then considering the relationships between findings from different components. The authors of this approach recommend that agreement, partial agreement, dissonance, and silence between components be considered.

Complementarity rather than partial agreement may be a more appropriate approach in some mixed methods studies, so that analysts consider how the findings from one method help to explain or illuminate those of another. An example of this in health care research is a comparison of the findings from an interview study with GPs delivering an intervention, an interview study with patients receiving an intervention, a survey of GPs, and a survey of patients [26]. The intervention aimed to reduce antibiotic prescriptions for acute cough. The triangulation protocol identified a discrepancy between GP and patient views of the necessity of one part of the intervention. GPs felt they needed the results of a test to convince patients that they did not need antibiotics, whereas patients described being convinced by the GP without the need for this test. This led to the researchers reconsidering the necessity of this component within their intervention.

Second, hypotheses can be generated from findings from one dataset to be tested in another dataset, and then any emerging findings explored further in the first dataset using the concept of 'following a thread' [27]. Third, data rather than findings can be combined where there are both qualitative and quantitative data on the same individuals or cases within a study. Data can be displayed in a matrix where the rows are cases and the columns are data from different components of the study. Researchers then look for patterns within and across these cases or might also consider using Qualitative Comparative Analysis for this purpose [28] (see Chapter 13 on case studies for more detail this type of analysis).

12.6 Thinking About Quality

A considerable amount of thought has been given to the meaning and assessment of the quality of mixed methods studies in recent years [29, 30]. Best practices for submitting high-quality mixed methods grant applications to a specific funder in the United States have been produced [31]. Two issues are important to qualitative researchers working within mixed methods studies. First, they need to produce good quality qualitative research and attend to the general quality criteria for doing this (see Chapter 15). Second, they need to contribute to good reporting of a mixed methods study to ensure that others can assess the quality of the whole study. Reporting guidance, consisting of six items, called Good Reporting of a Mixed Methods Study (GRAMMS), may be helpful for thinking about transparent reporting [32] (see Box 12.1).

Box 12.1 Good Reporting of a Mixed Methods Study (GRAMMS) [32]

1) Describe the justification for using a mixed methods approach to the research question.
2) Describe the design in terms of the purpose, priority, and sequence of methods.
3) Describe each method in terms of sampling, data collection, and analysis.
4) Describe where integration has occurred, how it has occurred, and who participated in it.
5) Describe any limitation of one method associated with the presence of the other method.
6) Describe any insights gained from mixing or integrating methods.

12.7 Team Working

Undertaking qualitative research in the context of a mixed methods study means that qualitative researchers will work with colleagues from different disciplines who have different knowledge bases, training, history, values, and understanding of research quality [7]. Qualitative researchers, like the other team members, need to work at developing a team understanding of the focus of the study and emerging findings. They also need to be interested in how others think about their research and how they undertake it, and how findings from other methods might affect their own component of the mixed methods study. Different values and beliefs about research can be held by different team members, sometimes leading to qualitative research being seen as less important than the quantitative research, particularly when RCTs are used to measure outcomes. This perceived status differential may detrimentally affect the contribution qualitative research can make to RCTs [33]. One way of reducing the risk of such problems is to discuss these issues at the outset of any study and have a clear agreement about the contribution of each of the methods used.

12.8 Publishing

It has become common practice to break a mixed methods study into its methodological pieces when publishing in peer-reviewed journals. This is understandable because researchers need to report the detail of all the components of their study and a single article may not allow the space for this. However, this can reduce the opportunity to report the findings from integration, and it is important that the learning from integration is published. This can be done by publishing the integration within an article based on a single method. The integration can be addressed in the introduction or discussion of this mono-method article, referencing other parts of the mixed methods study. Alternatively, researchers can write a mixed methods article. There are examples of these in a variety of journals; for example, a sequential study of qualitative interviews followed by a survey to explore patient and carer views of a new way of delivering an angioplasty service [34]. These are more possible than in previous decades because electronic publishing allows for the longer articles required for a mixed methods study, some journals may allow longer word limits for mixed methods articles, and there is also a journal dedicated to publishing mixed methods research and methodological innovation: the *Journal of Mixed Methods Research*.

12.9 Conclusions

Combining qualitative and quantitative methods in the same study is an important approach to consider as part of an array of study designs available to researchers. Indeed, a mixed methods approach is the norm when researching health care in the UK currently and is becoming increasingly popular internationally. Qualitative research contributes to understanding health care, and integration of qualitative and quantitative research undertaken within the same study can lead to insights that would not be possible otherwise.

References

1 Craig, P., Dieppe, P., Macintyre, S. et al. (2008). Developing and evaluating complex interventions: the new Medical Research Council guidance. *BMJ* **337**: a1655.

2 Morgan, D.L. (2007). Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research* **1** (1): 48–76.

3 Johnson, B.R. and Schoonenboom, J. (2016). Adding qualitative and mixed methods research to health intervention studies. Interacting with differences. *Qualitative Health Research* **26** (5): 587–602.

4 Mertens, D.M. (2010). Transformative mixed methods research. *Qualitative Inquiry* **16** (6): 469–474.

5 Creswell, J.W. (2015). *A Concise Introduction to Mixed Methods Research*. Thousand Oaks, CA: SAGE.

6 Creswell, J.W. and Plano Clark, V.L. (2011). *Designing and Conducting Mixed Methods Research*, 2e. Thousand Oaks, CA: SAGE.

7 Curry, L.A., O'Cathain, A., Plano Clark, V.L. et al. (2012). The role of group dynamics in mixed methods health sciences research teams. *Journal of Mixed Methods Research* **6** (1): 5–20.

8 Ivankova, N.V., Creswell, J.W., and Stick, S.L. (2006). Using mixed-methods sequential explanatory design: from theory to practice. *Field Methods* **18** (1): 3–20.

9 O'Cathain, A., Knowles, E., Bishop-Edwards, L. et al. (2018). Understanding variation in ambulance service non-conveyance rates: a mixed methods study. *Health Services and Delivery Research* **6** (19): 1–192.

10 Raine, R., Fitzpatrick, R., Barratt, H. et al. (2016). Challenges, solutions and future directions in the evaluation of service innovations in health care and public health. *Health Services and Delivery Research* **4** (16) https://doi.org/10.3310/hsdr04160.

11 Drabble, S.J. and O'Cathain, A. (2015). Moving from randomised controlled trials to mixed methods intervention evaluations. In: *The Oxford Handbook of Multimethod and Mixed Methods Research Inquiry* (eds. S. Hesse-Biber and B. Johnson), 406–425. Oxford: Oxford University Press.

12 Moore, G., Audrey, S., Barker, M. et al. (2015). Process evaluation of complex interventions. Medical Research Council guidance. *BMJ* **350**: h1258.

13 Salisbury, C., O'Cathain, A., Thomas, C. et al. (2017). An evidence-based approach to the use of telehealth in long-term health conditions: development of an intervention and evaluation through pragmatic randomised controlled trials in patients with depression or raised cardiovascular risk. *Programme Grants for Applied Research* **5** (1) https://doi.org/10.3310/pgfar05010.

14 Salisbury, C., O'Cathain, A., Thomas, C. et al. (2016). Telehealth for patients at high risk of cardiovascular disease: pragmatic randomised controlled trial. *BMJ* **353**: i2647.

15 Salisbury, C., O'Cathain, A., Thomas, C. et al. (2016). Effectiveness of an integrated telehealth service for patients with depression: a pragmatic

randomised controlled trial of a complex intervention. *Lancet Psychiatry* **3** (6): 515–525.

16 O'Cathain, A., Drabble, S.J., Foster, A. et al. (2016). Being human: a qualitative interview study exploring why a telehealth intervention for management of chronic conditions had a modest effect. *Journal of Medical Internet Research* **18** (6): e163.

17 Yardley, L., Ainsworth, B., Arden-Close, E., and Muller, I. (2015). The person-based approach to enhancing the acceptability and feasibility of interventions. *Pilot and Feasibility Studies* **1**: 37.

18 O'Cathain, A., Hoddinott, P., Lewin, S. et al. (2015). Maximising the impact of qualitative research in feasibility studies for randomised controlled trials: guidance for researchers. *Pilot and Feasibility Studies* **1**: 32.

19 O'Cathain, A., Thomas, K.J., Drabble, S.J. et al. (2013). What can qualitative research do for randomised controlled trials? A systematic mapping review. *BMJ Open* **3**: e002889.

20 O'Cathain, A., Knowles, E., Turner, J. et al. (2016). Variation in avoidable emergency admissions: multiple case studies of emergency and urgent care systems. *Journal of Health Services Research and Policy* **21** (1): 5–14.

21 Connell, J., Brazier, J.E., O'Cathain, A. et al. (2012). Quality of life of people with mental health problems: a synthesis of qualitative research. *Health and Quality of Life Outcomes* **10**: 138.

22 Connell, J., O'Cathain, A., and Brazier, J. (2014). Measuring quality of life in mental health: are we asking the right questions? *Social Science and Medicine* **120**: 12–20.

23 O'Cathain, A., Murphy, E., and Nicholl, J.P. (2010). Three techniques for integrating qualitative and quantitative methods in health services research. *BMJ* **341**: 1147–1150.

24 Fetters, M.D., Curry, L.A., and Creswell, J.W. (2013). Achieving integration in mixed methods designs – principles and practices. *Health Services Research* **48** (6 pt 2): 2134–2156.

25 Farmer, T., Robinson, K., Elliott, S.J., and Eyles, J. (2006). Developing and implementing a triangulation protocol for qualitative health research. *Qualitative Health Research* **16**: 377–394.

26 Tonkin-Crine, S., Anthierens, S., Hood, K. et al. (2016). Discrepancies between qualitative and quantitative evaluation of randomised controlled trial results: achieving clarity through mixed methods triangulation. *Implementation Science* **11**: 66.

27 Moran-Ellis, J., Alexander, V.D., Cronin, A. et al. (2006). Triangulation and integration: processes, claims and implications. *Qualitative Research* **6** (1): 45–59.

28 Cragun, D., Pal, T., Vadaparampil, S.T. et al. (2015). Qualitative comparative analysis. *Journal of Mixed Methods Research* **10** (3): 251–272.

29 Fàbregues, S. and Molina- Azorín, J.F. (2016). Addressing quality in mixed methods research: a review and recommendations for a future agenda. *Quality and Quantity* **51** (6): 2847–2863.

30 O'Cathain, A. (2010). Assessing the quality of mixed methods research: toward a comprehensive framework. In: *Handbook of Mixed Methods Research*, 2e (eds. A. Tashakkori and C. Teddlie), 531–555. Thousand Oaks, CA: SAGE.

31 Creswell, J.W., Klassen, A.C., Plano Clark, V.L. et al. (2011). *Best Practices for Mixed Methods Research in the Health Sciences*. National Institutes of Health: Bethesda.

32 O'Cathain, A., Murphy, E., and Nicholl, J.P. (2008). The quality of mixed methods studies in health services research. *Journal of Health Services Research and Policy* **13**: 92–98.

33 O'Cathain, A., Goode, J., Drabble, S.J. et al. (2014). Getting added value from using qualitative research with randomised controlled trials: a qualitative interview study. *Trials* **15**: 215.

34 Sampson, F., O'Cathain, A., and Goodacre, S. (2010). Is primary angioplasty an acceptable alternative to thrombolysis? Quantitative and qualitative study of patient and carer satisfaction. *Health Expectations* **13**: 350–358.

Further Reading

Creswell, J.W. and Plano Clark, V.L. (2017). *Designing and Conducting Mixed Methods Research*, 3e. Thousand Oaks, CA: SAGE.

Curry, L. and Nunez-Smith, M. (2015). *Mixed Methods in Health Sciences. A Practical Primer*. Thousand Oaks, CA: SAGE.

13

Case Studies

Alec Fraser[1] *and Nicholas Mays*[2]

[1] *King's Business School, King's College London, London, UK*
[2] *Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK*

13.1 Introduction

Case studies enable researchers to explore particular phenomena in one or more real-life settings. They typically draw on multiple methods of data collection, either qualitative or quantitative, or both, depending upon the question the researcher wants to explore. Because case study approaches frequently combine different research methods, it is helpful to think of case study as a research design or as a strategy for increasing understanding, rather than as a research method in its own right.

Case studies have been used within many academic disciplines because they help explain and learn from real-life events and situations. For example, historians may study the causes of the World War II as a case study of the consequences of the breakdown of the international order, and anthropologists might use them when studying tribal groups (see Chapter 6 for a detailed discussion of ethnography). In medicine, too, there is a long history of case studies – either taking individual patients as the 'case' or localised disease outbreaks. Classic studies by medical sociologists such as Becker et al. [1] and Goffman [2] used case studies to understand health care institutions and the experiences of those working in and receiving health care. These kinds of studies established the utility of qualitative methods for increasing understanding about what

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

occurs in health care settings, and they offered powerful explanations for behaviours and attitudes of the people found in these settings. Likewise Alford's [3] research about New York City public health care showed how changes in the system were the result of the inter-play and conflicts between three main sets of interests: the dominant group of 'professional monopolists' (the medical profession), a rival group of 'bureaucratic rationalisers' (the managers), and a repressed, marginal group of patients and the public. This single case study identified the key 'structural interests' that can also be seem to operate in almost all high-income country health care systems, providing insights that have informed subsequent analyses of health care system dynamics [4, 5].

There is an increasing recognition of the importance of mixed method case studies in health services research and policy evaluations. For example, it has become relatively common in the United Kingdom (UK) to nest a number of carefully selected local case studies within a larger policy or programme evaluation which also uses quantitative methods such as the analysis of patient surveys or routine activity data [6, 7]. In this chapter, we explore the kinds of research questions that are amenable to case study research and how to go about using qualitative case study research in health care settings.

13.2 Types of Case Study Research

Case studies may involve small scale, localised, single site, one-time research or larger, multiple site, and longitudinal approaches. Flyvbjerg [8] lists common criticisms of single or small number case studies, notably concerns about generalisation and the idea that context dependent analyses are unsuited to hypothesis testing. He argues that generalisation from a single case is indeed possible so long as the case is well selected and the methods used are sufficiently rigorous. Case studies may offer rich, detailed information; by selecting an atypical or extreme case, the researcher may reveal more about the underlying general processes, procedures and actions than a larger representative sample of cases. Not all writers are as confident as Flyvbjerg concerning the generalisability of case studies, and some qualitative researchers prefer to use the concept of transferability, asking how far the 'findings of a particular study may be applied to similar contexts' [9] (p. 195). In a similar vein, Tsoukas suggests that single case studies help clarify structures and the associated generative mechanisms that may underpin phenomena [10].

Ragin [11] explores the contrast between idiographic (case-based) and alternative (variable-based) traditions in social science research. He suggests that the former is holistic and looks at the operation of complex patterns of causality within the case, whilst the latter assesses the relationships between variables, or aspects of cases across a sample of observations to specify general patterns that hold for the sample as a whole. As a response to what he felt were the limitations of both traditions, Ragin developed Qualitative Comparative Analysis (QCA). This is a distinct type of comparative case study analysis which is useful when there are too few instances of a phenomenon available to use conventional regression analysis to explain the factors influencing a particular decision, result, or outcome. QCA aims to ascertain the necessary and sufficient conditions across cases that have to be present to produce a particular result. It can be used both with original case studies and as a method of synthesis of previously reported cases. Rather than being strictly qualitative or quantitative, QCA is probably best seen as a 'logical' approach to analysis, as it uses Boolean algebra to identify the most parsimonious explanation that applies to all the available cases of any phenomenon. QCA has been used to explain why some poor countries were able to lower their HIV/AIDS prevalence more than others [12]. Cronqvist and Berg-Schlosser compared countries (as 'cases') in sub-Saharan Africa which had had a high HIV prevalence rate in 1997 to see which country-level contextual factors seemed to be associated with significantly lower rates by 2003 and thus more effective prevention strategies. The QCA showed more clearly than a previous statistical analysis that prevention policies at that time seemed to work better in countries with fewer migrant workers and where the mortality rate from AIDS at the start of the period had been high enough to show the population the health dangers of HIV and the need for sexual behaviour change.

It is often helpful to compare two or more cases. Smith [13] drew on two contrasting public health issues – tobacco control and health inequalities – to identify the differences in how and why evidence was used to guide macro-level policy-making. These two cases were selected as they demonstrated that whilst there was strong research evidence in each to suggest that policy should move in a certain direction, action on tobacco control was more successfully pursued than action on health inequalities. Smith demonstrated that this was because there were stronger links between research, advocacy, and policy communities around tobacco control that fostered the development of persuasive 'policy frames' that were used to counter opposing views.

At a regional or meso-level, Fulop et al. [14] and Turner et al. [15] explored the different approaches taken towards the large-scale stroke service reconfiguration in London and Manchester. By closely describing contextual factors, their comparative approach offers a rich understanding not only of the differences between the reconfiguration process and results in each city, but also why the service models diverged, and how local political factors shaped these approaches. They found that the more consensual approach taken in Manchester generated a more complex care pathway for emergency stroke care compared with London's simpler care pathway, which appeared to be easier to implement and had better outcomes. This case study research also drew on quantitative analysis to identify whether the changes were likely to prove cost-effective [16], providing valuable insights for policy-makers. Combining qualitative and quantitative methods in this way provided rich insights to inform policy and future service development.

13.3 Practical Considerations for Using Case Study Approaches in Health Care Settings

13.3.1 Defining Cases

The first question that faces a researcher considering a case study approach to research is how to define the case. What constitutes a case, and where do the boundaries of the case lie? There are no hard and fast answers to these questions – they ultimately depend on the research question that the researcher seeks to answer and will inevitably involve a trade-off between principle on the one hand and pragmatism on the other. Sometimes, the boundaries are relatively simple to identify – for example, Boaz et al. [17] set out to explore the implementation of evidence-based thrombolysis services for stroke patients across four case studies in England and Sweden. In each case, the research team identified all members of staff who were involved in the strategic planning of thrombolysis services and the delivery of these services, particularly those staff members whose care of stroke patients following thrombolysis may have been affected by the local stroke thrombolysis protocols. In other studies, drawing the boundary has been more difficult. For example, the Department of Health in England commissioned an evaluation of its ‘Pioneer programme’ and this adopted, in part, a case study design [18]. This programme had recruited 25 ‘Pioneer sites’ to work to improve the coordination of NHS health services and local authority-led social care. These sites aimed to develop and test new and different ways of integrating care services across England, involving voluntary and community services as well as health services. One of the first challenges for the evaluators was to define which of the many local service improvement activities should be seen as part of the Pioneer programme. Some activities predated the Pioneer programme, and some were linked or badged as part of other, ongoing improvement activities. Likewise, when trying to obtain the views and experiences of local staff and user representatives involved in the sites, ‘involvement’ had to be defined. Given the scale of the programme and the range of different organisations in play, there were large numbers of people who could be considered as participants. This was further complicated by the fact that lead managers in each site differed in how they defined ‘key participants’.

Sometimes the boundaries of the case can shift over time, including when the researcher is already in the field. For example, Ledger [19] set out to study the use of management knowledge in health care commissioning through comparative case studies of Primary Care Trusts (PCTs) in the English NHS, only for PCTs to be abolished by the government whilst she was researching them. This required her to recalibrate the boundaries (both organisational and geographical) of her original cases, as well as some of the key aims of her research, which increasingly came to focus on the impacts of organisational turbulence in health care commissioning. The ability to dig down deeply into the contingent nature of organisational processes and broader themes is valuable – especially if research is focused on exploring or explaining change within organisations [20] – and Ledger’s work demonstrates this well.

13.3.2 Sampling

The next question relates to sampling. The decisions researchers make about sampling are crucially important as these are linked to questions of generalisability or transferability of the findings (some of these issues will be covered further in Chapter 15). The advantage of generalisability is that it may make findings more useful for policy-makers and therefore more likely to influence policy. Stake emphasises the importance of internal validity – that is, depth of understanding as opposed to breadth in case study approaches. He suggests:

> We take a particular case and come to know it well, not primarily as to how it is different from others but what it is, what it does. There is an emphasis on uniqueness and that implies knowledge of others that the case is different from, but the emphasis is on understanding the case itself. [21]

However, it is important that the commitment to uniqueness is not total; otherwise, no claims can be made about learning from one case to apply to other similar situations.

There are a number of sampling methods open to case study research, some being more or less robust than others, once more highlighting the trade-off between principle and pragmatism. At the less robust end of the spectrum are convenience and opportunistic sampling methods. The advantages of such approaches are that they are relatively quick, and useful for piloting ideas. They may well make sense for student projects – for example, if a researcher works on a specific ward in a hospital and has noted a local problem and wishes to explore this then it may well be logical to select that ward as a case study. The drawbacks of such sampling approaches, of course, are that they lack rigour and may be hard to justify should the researcher wish to publish findings of the research. More sophisticated approaches include ‘critical case’ sampling [22] in which one or more cases are sampled on the basis that it or they are likely to provide the researcher with the greatest knowledge about a specific phenomenon. For example, Ferlie et al. [23] took a novel approach to study innovations in health care settings by comparing two broad cases – (i) acute care and (ii) primary care – and then following the spread of two innovations characterised as supported by strong research evidence and two others seen as having a more contested evidence base, so as to explore how different innovations with different levels of evidence spread across different contexts. In comparative case study approaches, researchers may seek the greatest difference between cases to learn about a specific issue – for instance, a high-performing hospital or set of hospitals might be compared to a low-performing hospital or set of hospitals so that researchers can compare the organisational factors in each case that might help explain variation. The justification here is that it is likely to be easier to spot the differences between the two sets of hospitals than if a random sample had been drawn from all the hospitals available. Another approach is to select one or more ‘deviant cases’; that is, examples where known information may appear to contradict widely held assumptions. For example, this could be a very poor country whose population appears to have much better health than other countries at the same level of economic development.

Conversely, a researcher might prefer to sample for a ‘typical case’ – that is, one that demonstrates factors that might be expected to be found in many other places. For comparative case study research of ‘typical’ cases, the guiding logic is one of greatest similarity. Researchers need access to other sources of knowledge, data, and insight to determine typicality to help identify what marks out critical, as opposed to typical, cases. For example, the Boaz et al. [17] study into thrombolysis implementation in stroke services sought to identify two ‘typical’ stroke services in English hospitals (one urban and one rural) and two ‘typical’ stroke services in Swedish hospitals (one urban and one rural, again). Typicality of cases was assured through comparisons of audit data from Riksstroke in Sweden and the National Sentinel Stroke Audit in England – these audit tools included data on both clinical and organisational factors, which were affirmed by national clinical experts in each country. The researchers also selected one urban and one rural case study site in each country to explore the potential impact of location on the development of stroke services. This was important as it was hypothesised that factors linked to geographical location within each country might have an impact upon staff recruitment and retention.

13.3.3 Data Collection Methods

The methods that researchers use in order to generate data will once more depend on the nature of the research question, the sampling strategy, and the time and resources of the researcher or research team. Observational methods can be particularly useful in case studies, because, after all, case studies seek to explore activity and behaviour within real-life contexts. Ethnographic approaches using observation, often in combination with other qualitative data collection methods, are highly suited to case studies – especially where there is an opportunity for long-term research which can track change and describe this in a rich, detailed manner over time. Documentary analysis is also very useful for case study research – this enables the researcher to analyse protocols and policies and compare the ideal ‘official’ goals of a policy or organisation with the reality as perceived by the observer or presented by local actors during interviews, which are also frequently used in case study research.

13.3.4 Analysis

Since case studies depend on multiple sources of data, data analysis is sometimes difficult simply because different sources can suggest different interpretations of what is happening within and between cases. The narratives unearthed through interviews, documents, and sometimes observations of meetings or work in action can be contested and conflict with one another. This is not so surprising since ‘cases’, by definition, have ‘sides’ because they contain different interests such as system leaders (governors and senior executives), middle managers, front line staff, patients and patient representatives, the public, local politicians, etc. All of these actors have different perspectives. Analysing these data may often pose challenges for researchers. The researcher must make a judgement – does she seek to find the commonalities between conflicting narratives that respect the different viewpoints? Such an approach would tend towards an interpretation of the case that might be generally accepted by the participants. By contrast, the researcher might legitimately take the view that the contested narratives are in themselves significant and so choose to present these conflicting views, thereby inviting the reader to be the judge of the veracity of the different viewpoints offered. A third approach might be to provide an interpretation, which is neither that of any one interested party nor necessarily accepted in full by any of the participants. An example of these challenges is provided by an issue which emerged in Boaz et al.’s [17] fieldwork. The researchers discovered that two senior staff members at one of the sites had had a long-standing personal feud, which other informants suggested had a negative impact on the rest of the stroke team and may have indirectly inhibited effective implementation of key aspects of evidence-based stroke care. The decision about whether or not to include these data in project outputs was very difficult for the researchers; and once a decision had been made to include these findings, great care had to be taken to anonymise the individuals and the site to protect the identity of those who had taken part in the research. This particular project was not highly politicised, and the findings were published a number of years after the fieldwork had been carried out – which may have made this decision a little easier. However, sometimes case study findings can have more politically or commercially salient, high-profile, and immediate implications, and, in these situations, researchers may come under some pressure from research participants to present their findings in ways that do not harm reputations, for example. Such situations may be hard to deal with and there can be a natural temptation to 'self-censor' that research teams must endeavour to avoid.

13.4 Conclusions

This chapter has discussed some of the key issues that researchers need to consider should they wish to conduct case study research. It has shown that the strategy of studying cases has a long and consistently valuable role in health services research. This is because it is always important for researchers, health service staff, patients, and policy-makers to understand what is happening in real-life health care settings. This applies in a regulatory sense – as highlighted, for example, in the organisational case studies performed by the English Care Quality Commission in the NHS and social care; in a policy and managerial sense – in the research commissioned by the National Institute for Health Research's Health Services and Delivery Research Programme; and, in an organisational sense, in smaller scale local research projects.

References

1 Becker, H.S., Geer, B., Hughes, E.C., and Strauss, A.L. (1961). *Boys in White: Student Culture in Medical School*. New Brunswick: Transaction Press.

2 Goffman, E. (1961). *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. New York: Random House.

3 Alford, R.R. (1973). *Health Care Politics: Ideological and Interest Group Barriers to Reform*. Chicago: University of Chicago Press.

4 Hunter, D. (2016). *The Health Debate*, 2e. Bristol: Policy Press.

5 Mannion, R., Davies, H., and Marshall, M. (2004). *Cultures for Performance in Health Care*. McGraw-Hill Education: Maidenhead, Berkshire.

6 Pope, C., Banks, J., Salisbury, C. et al. (2008). Improving access to primary care: eight case studies of introducing advanced access in England. *Journal of Health Services Research and Policy* **13**: 33–39.

7 Robert, G., Morrow, E., Maben, J. et al. (2011). The adoption, local implementation and assimilation into routine nursing practice of a national quality improvement programme: the Productive Ward in England. *Journal of Clinical Nursing* **20**: 1196–1207.

8 Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry* **12** (2): 219–245.

9 Murphy, E. and Dingwall, R. (1998). Qualitative methods in health services research. In: *Health Services Research Methods: A Guide to Best Practice* (eds. N. Black, B. Reeves, J. Brazier and R. Fitzpatrick), 129–140. London: BMJ Publishing.

10 Tsoukas, H. (1989). The validity of idiographic research explanations. *Academy of Management Review* **14** (4): 551–561.

11 Ragin, C. (1987). *The Comparative Method: Moving beyond Qualitative and Quantitative Strategies*. Berkeley: University of California Press.

12 Cronqvist, L. and Berg-Schlosser, D. (2006). Determining the condition of HIV/AIDS prevalence in sub-Saharan Africa. In: *Innovative Comparative Methods for Policy Analysis* (eds. B. Rihoux and H. Grimm), 145–166. New York: Springer.

13 Smith, K. (2013). *Beyond Evidence Based Policy in Public Health: The Interplay of Ideas*. Basingstoke: Palgrave Macmillan.

14 Fulop, N., Ramsay, A., Perry, C. et al. (2016). Explaining outcomes in major system change: a qualitative study of implementing centralised acute stroke services in two large metropolitan regions in England. *Implementation Science* **11** (1): 80.

15 Turner, S., Ramsay, A., Perry, C. et al. (2016). Lessons for major system change: centralization of stroke services in two metropolitan areas of England. *Journal of Health Services Research and Policy* **21** (3): 156–165.

16 Morris, S., Hunter, R., Ramsay, A. et al. (2014). Impact of centralising acute stroke services in English metropolitan areas on mortality and length of hospital stay: difference-in-differences analysis. *BMJ* **349**: g4757.

17 Boaz, A., Baeza, J., and Fraser, A. (2016). Does the 'diffusion of innovations' model enrich understanding of research use? Case studies of the implementation of thrombolysis services for stroke. *Journal of Health Services Research and Policy* **21** (4): 229–234.

18 Erens, B., Wistow, G., Mounier-Jack, S. et al. (2017). Early findings from the evaluation of the integrated care and support pioneers in England. *Journal of Integrated Care* **25**: 137–149.

19 Ledger J. Competing knowledges in turbulent times: the use of management knowledge in commissioning organisations in the English NHS. Doctoral dissertation. London: King's College London. 2014. Available at https://kclpure.kcl.ac.uk/portal/files/67208901/2014_Ledger_Jean_0975118_ethesis.pdf (accessed 18 April 2019).

20 Rodgers, M., Thomas, S., Harden, M. et al. (2016). Developing a methodological framework for organisational case studies: a rapid review and consensus development process. *Health Services and Delivery Research* (1): 170.

21 Stake, R.E. (1995). *The Art of Case Study Research*. Thousand Oaks, C.A.: SAGE.

22 Patton, M.Q. (2001). *Qualitative Research and Evaluation Methods*, 2e. Thousand Oaks, C.A.: SAGE.

23 Ferlie, E., Fitzgerald, L., Wood, M., and Hawkins, C. (2005). The nonspread of innovations: the mediating role of professionals. *Academy of Management Journal* **48** (1): 117–134.

Further Reading

Yin, R.K. (2014). *Case Study Research Design and Methods*, 5e. Thousand Oaks, C.A.: SAGE.

14

Participatory Research in Health Care

Kath Maguire and Nicky Britten

College of Medicine and Health, University of Exeter, Exeter, UK

14.1 Introduction

Participatory or participative research is a cluster of research practices in which people who are not professional researchers are involved in the conduct of the research in active research roles rather than as research subjects, informants, or advisors. Depending on the research topic and context, people participating in these research roles might include service users (patients, carers, and families), the wider public and community groups, health care staff, service managers, and policy-makers. Participatory research often uses qualitative methods to understand and represent the experiences of patients, service users, and carers, but can include qualitative and/or quantitative methods.

There are a number of models of participation that distinguish different levels of involvement (see Table 14.1). Often these are explicitly built on Arnstein's Ladder of Citizen Participation [1]. The ladder metaphor has been criticised for oversimplifying what is a complex range of participatory practices. It may be more useful to see different types of participation as a continuum of processes and activities that need to be chosen in order to match the requirements of specific circumstances and required outcomes [5, 6]. It has also been argued that Arnstein overemphasises the dimensions of relative power and control. From the perspective of those involved in participatory research, the sharing of different types of

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope
and Nicholas Mays.

Table 14.1 Examples of linear participation models.

Arnstein [1]		Wilcox [2]			Carman et al. [3]	Assumpção et al. [4]	
Ladder of citizen participation		**Framework for participation**			**From: Patient and Family Framework**	**Citizen science**	
Citizen Control	Citizen Power	←Level and stance→	Supporting	Substantive Participation	Partnership and Shared Leadership	Extreme	Collaboration in problem definition, data collection and analysis
Delegate Power			Acting together				
Partnership						Participantory	Participation in problem definition and data collection
Placation	Tokenism		Deciding together		Involvement		
Consultation						Distributed intelligence	Citizens as interpreters
Informing			Consultation				
Therapy	Non-Participation				Consultation	Crowdsourcing	Citizens as sensors
Manipulation			Information				

knowledge and expertise may be equally or even more important to participants than their relative power over the research process [7].

Another way of categorising different participative practices is based on whether involvement of patients or citizens is driven by the participants themselves or by the organisations they are working with – what Beresford [8] has designated 'consumerist' or 'democratic' drivers. This recognises the range of different motives for participation in health research. Some of these arise from the researchers' preferences. They may have a particular desire to root their work in the practical experience of practitioners and service users, or they may have a personal commitment to democratic values and sharing the benefits of research widely [9]. This has been described as researchers having either a 'utilitarian' perspective which aims to achieve specific health outcomes or access particular information, or a 'social justice' perspective which focuses on the redistribution of power and knowledge [10].

Involvement of practitioners, patients, citizens, and communities is also a priority for many funders and policy-makers in health research and care, not least because they are seen as beneficiaries of the outputs of health and social care research. Their involvement in the research process can help ensure that research produces targeted and usable outputs. It can also support a sense of 'ownership' of that knowledge on the part of the intended beneficiaries. This adds value to the research by encouraging implementation of research findings and supports service development. This can extend the impact derived from the funds invested in research.

A related driver of participatory research is the desire to improve public understanding of research and increase public trust in research evidence. At a point in history when public trust in science has been severely challenged, both researchers and policy-makers are particularly concerned to widen public participation and engagement. This mistrust has often been seen as due to a public deficit in scientific knowledge and understanding. However, this explanation fails to recognise that the institutional cultures of researchers and policy-makers are frequently responsible for alienating people [11]. Working in partnership with communities to co-create a research agenda, rather than just giving people information, can help to share knowledge and build trust [6].

At the same time, there is another very different organisational driver of wider public participation: the potential for the public to provide a large human resource that may enable the gathering and analysis of large amounts of data. This is the moving force behind the burgeoning citizen science movement.

There is a final movement pressing for greater public involvement in research, which has arisen from a range of patient and civil society activist movements [12]. The disability rights movement contributed the model of Emancipatory Research [13] which aimed to fundamentally change the social relations of research production. For example, through the gay rights movement of the 1960s and 1970s, people demonstrated that political action can influence what is accepted as scientific truth through their campaigns to have the categorisation of homosexuality as a mental illness removed from the Diagnostic and Statistical Manual of Mental Disorders in the USA and the World Health Organisation's International Classification of Diseases [14]. This movement then directly empowered and informed campaigns of HIV/AIDS activists seeking to influence health services research.

For convenience, in this chapter, we divide participatory research into four categories that represent different ways of working with participants: co-production; action research; service user-controlled research; and citizen science. It is, however, important to remember that participation in research may be better understood as occurring along a continuum. The distinctions between these categories may become blurred in practice. In addition, over the lifetime of a research project, the different categories of participation may be drawn on to a greater and lesser extent. For example, a project may be service user-controlled, in terms of setting the research question, managing research governance, and controlling dissemination, but may not involve service users in the collection or analysis of data.

14.2 Co-production

The co-production model in health care research usually describes working with at least two distinct interest groups: service users and service providers. It has been described as a way to support health service development that enables and empowers both patients and staff. Co-production rests on the principle that service users and service providers should be recognised as co-creators of service improvements. This is intended to support equal partnerships and shared power in a way that can make services more efficient and more effective. In co-production, the researcher's role is often one of facilitating processes, and mediating between different perspectives and interests, as well as managing and analysing data.

Co-production has been seen as a way of reconciling person-centred care with the increasing demands on health and social care services. In reality, both patients and practitioners always play a role in shaping health outcomes within a health service. There is a convincing argument to be made that the benefit of using qualitative methods to support co-production in health care research and service improvement is that they are able to bring to light relational knowledge [15]. This is knowledge which is created within the relationship between patient and practitioner, and which is an essential part of health care. Qualitative methods enable that knowledge to be utilised more consciously and positively than other methods [16].

A particular form of co-production known as Evidence Based Co-Design (EBCD) [17] uses in-depth interviews, observations, and discussions with groups of patients, carers, and staff members to identify points in their experiences of care which have had a particularly significant positive or negative emotional significance (see Box 14.1). These significant points, known as 'touch points', might be occasions where a casual word or action was found comforting or encouraging; they might also be things that were experienced as distressing or undermining. The issues identified are explored using short, edited films from patient interviews describing how the service is experienced. These films are shared separately with staff and patients who are then brought together to discuss the issues raised and to identify how changes could be made to the service or care pathway that could help support the more positive experiences and address the negative ones.

A danger of the rhetoric of shared power and responsibility central to co-production is that this laudable intention to work as an equal partnership can obscure genuine structural inequalities. This is one reason for the persistence of linear models like those in Table 14.1. There are likely to be several such inequalities in partnerships between service providers and service users; for instance, in access to information and resources, and/or differences in status between professional and patient roles [19, 20]. There are also likely to be inequalities between patients, with some groups having a greater capacity and inclination to share decision-making responsibilities. This lack of 'parity of participation'

Box 14.1 Using EBCD to Implement Patient-Centred Cancer Care [18]

This project took place in a large cancer centre in an English inner-city. It used EBCD to identify and implement improvements for breast and lung cancer patients. It also explored differences between the two cancer groups. Finally, it explored participants' experiences of the EBCD process.

Filmed narrative interviews with patients, ethnographic observation of services and interviews with staff were used alongside a 12-month facilitated co-design process which included both patients and staff. Follow-up interviews with some staff and patients focused on the value of the approach.

Whilst the project found that both cancer groups experienced similar 'touch points', that is, issues that impacted positively or negatively on their care experience, the specific improvements which patients and staff chose to prioritise were different. For example, breast cancer patients identified a need for better information on treatment side-effects, whilst lung cancer patients prioritised post-surgery information. Researchers highlighted the difference in priorities between groups as something important for those developing patient-centred cancer services to consider.

Four characteristics of EBCD were highlighted as key to successful implementation of service improvement:

- patient involvement
- patient responsibility and empowerment
- a sense of community
- close connection between service experiences and improvement priorities.

[21] needs to be actively acknowledged and addressed in order for partnerships to become genuinely equal. As Jane McGrath [22] has pointed out, a test of this might be whether service users are able to raise issues seen as inconvenient to service providers without jeopardising the partnership. Another test might be whether the findings of a participatory research process are widely disseminated. This highlights another important source of inequality to take into account when designing or facilitating co-production processes; namely, the structural relationships of health care professionals with service provider organisations.

Organisational priorities and the position of individual staff members in career and management structures can inhibit open discussion of some issues.

14.3 Participatory Action Research

Participatory action research is a systematic investigation undertaken by, or in partnership with, those who are affected by the issue being studied. It is an approach intended to directly address inequalities of information and resource. Developed from the civil rights and community development traditions, participatory action research is founded on democratic principles. In particular, it has been advocated by social rights activists as a means of addressing entrenched imbalances of power in situations where inequalities in the resources of education and research may have been used to uphold unjust power structures [23].

It has also been argued that this sort of collaborative research approach makes particularly good sense when the aim is to bring about practice change [24]. In a similar way to co-production, participatory action research also prioritises the relational knowledge that is embedded in context, social interactions, and practice – knowledge which is often tacit and uncodified. This means that participatory action research partnerships can sometimes effect changes beyond the immediate goals of the project and facilitate unexpected outcomes. For example, during an arts-based participatory action research project involving mental health professionals and service users, both groups identified that they felt they lacked power within the mental health system, helping them develop a sense of mutual empathy [25].

Another benefit claimed for participatory action research is that it supports the implementation of research evidence into practice. It has been argued that the poor uptake of evidence in some fields of practice indicates that what is needed is not just better dissemination, but wider 'ownership' of knowledge which can be facilitated by participatory action research [26]. When the community feels this 'ownership', it is more likely to act on the knowledge created through the research. For instance, church groups involved in participatory action research on a weight loss programme continued to use this programme after the end of the project, an outcome attributed to the project's ability to directly address an issue of community interest and to identify strategies that were culturally appropriate for that population [27].

Projects may be initiated by practitioners, community members, or researchers, but to be effective they must recognise and pay attention to the relationships between these different actors. Often, the role of the professional researchers is to support training, design, and undertaking of the research in partnership with practitioners and/or community members. The exact methods used in participatory action research will depend on the issues under investigation and the context in which the research is taking place (see Box 14.2).

Box 14.2 Community Mobilisation and Collaboration [28]

This research aimed to identify culturally appropriate health promotion programmes for women of South Asian background. It was based in Toronto, Canada. Though the project was initiated by the lead researcher, the women approached to take part agreed that existing programmes did not address their unique circumstances or needs and welcomed the cultural focus of the project.

Women from two different South Asian backgrounds were included. Information sessions were held separately for each group. Qualitative data were collected through focus groups, again held separately for each group.

Women wanted to be included as research partners, taking on the administration of the finances and practical organisation of focus group sessions. However, their lack of research experience led them to prefer to include public health nurses to facilitate the conduct and recording of sessions.

In focus groups of 6–8 participants, women discussed the stories and metaphors they used in understanding their lives. One group held 10 sessions of about 2 hours each and the other held 6 sessions, each of about 3–4 hours. Sessions were held in community settings or in women's homes. Initially, these were audio-recorded, but later written notes were preferred. These were reviewed by the group at the end of the session and again at the beginning of the next, to support the reflective process and the self-ascription of meaning. These focus groups allowed the groups to interpret their own discussions and produce their own explanations and interpretations. This supported participants to identify problems and helped them to plan and revise their own action strategies.

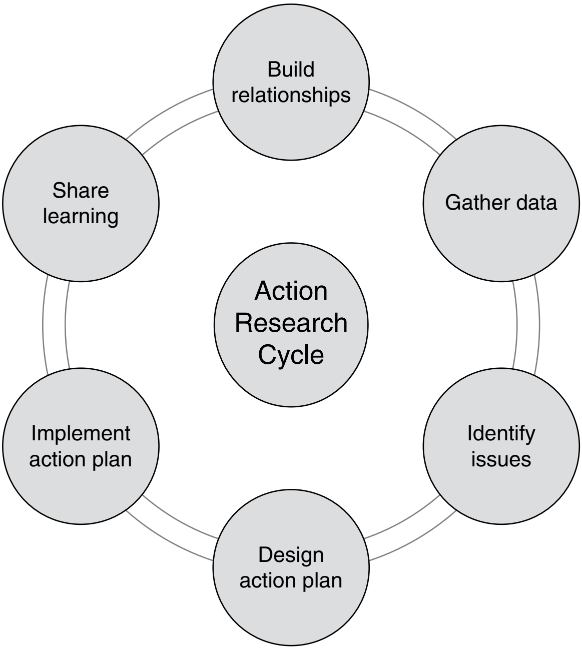

Figure 14.1 Simple participatory action research cycle model.

Typically, participatory action research involves a cyclic design that moves through iterative processes of information and evidence gathering, followed by planning and implementation, accompanied by reflection and adaptation (see Figures 14.1 and 14.2). The aim throughout these cycles is to draw on the practical experiences and local knowledge of participants to inform the development of the research, and to support them to use the new knowledge they have generated in their future practice. Just as in co-production, there is a delicate balance to be struck in ensuring active engagement. It is important to recognise power relations and structural disadvantage [29].

14.4 Service User-Controlled Research

Sometimes described as service user-led research, this is research that service users actively control, manage, or undertake for themselves. Key components of service user control are that service users determine the

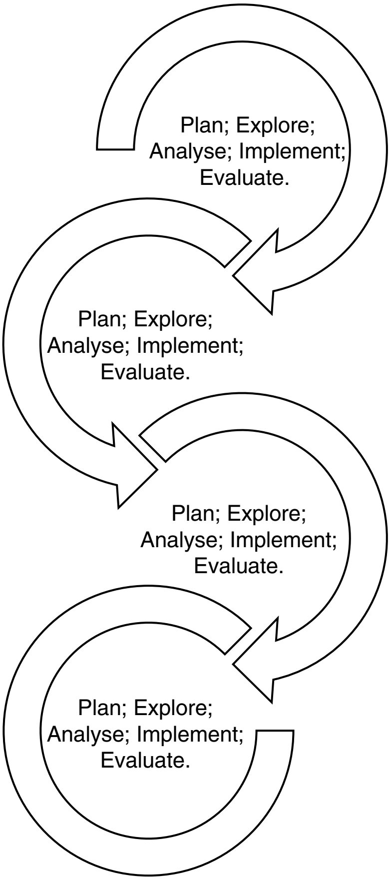

Figure 14.2 Multi-level participatory action research cycle model.

research focus, the research process, the interpretation of the findings, and the conclusions to be drawn for practice and policy [30]. In practice, however, this may include different levels of participation in the conduct of the research processes. This has led some to make a distinction between the terms ‘service user-controlled’ and ‘service user-led research’.

Service user-controlled research is frequently driven by the perception on the part of service users of a need for information or change which has been overlooked or ignored by mainstream health care researchers and service providers. The service users set the research agenda and make the important decisions on methods, governance, and dissemination. They may then either employ researchers to undertake the research

Box 14.3 Public and Patient Involvement in Theory and in Practice [31]

The topic for this study was developed from discussions in the Peninsula Public Involvement Group (PenPIG) in South West England about its members' different backgrounds and approaches to health research whilst being involved with the National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care South West Peninsula (PenCLAHRC). This was developed by a PenPIG member as a PhD study with the research question: 'What motivates and sustains patient and public involvement from the perspective of lay participants?' Because PenPIG was resourced by PenCLAHRC, it was possible to actively involve its members throughout the study in the following ways:

- discussions about study management and governance, including advising on participant recruitment and the qualitative interview methods;
- reviewing documents at meetings and through an online forum;
- mapping their own involvement to inform data analysis;
- playing board games based on sociological explanations of patient and public involvement in health research;
- rating short stories based on anonymised interview data as 'like me', 'like someone I know', or 'not known';
- commenting on presentations of the research alongside academic researchers;
- giving detailed feedback on the final thesis.

or design it as participatory service user-controlled research, working with researchers (see Box 14.3).

Service user-led research, on the other hand, is seen as often driven more by the research agenda of service providers and commissioners rather than the genuine interests of service users. As a result, the service users leading the research may have little real influence on the choice of research question, methods or dissemination plan – what Berrisford [8] described as 'consumerist' rather than 'democratic' service user research. In the context of mental health research, Faulkner and Nichols [32] have explicitly linked participatory service user-controlled research to Oliver's concept of emancipatory research [33]. They argue that there are a number of advantages in research being both controlled and undertaken by service user researchers. These can include: improved access to marginalised groups; independence from professional health and social care services; different insights which provide opportunities to both ask different questions and find different answers; and the personal benefit from reclaiming the value of service users' own experiential knowledge, in contrast to professionalised and medicalised knowledge. Faulkner and Nichols further suggest that by sharing key aspects of identity with research participants, service user researchers can reduce the imbalance of power in relationships between researchers and research participants. Service user control in mental health research has been argued to improve the 'ecological validity' [34] of research by utilising the expertise derived from subjective experience, thereby providing a better, more nuanced, understanding of issues such as 'non-compliance' with treatment.

Yet, the experience of trying to promote the experiential knowledge of service users in what is often perceived by service users as a hostile academic and/or medical culture can in itself feel extremely disempowering [35]. It has been pointed out that it can be difficult for service user-controlled research to gain access to the academic support needed. Academic researchers can be put off working in service user-controlled projects because they fear it may be more time-consuming and resource-intensive, particularly when involved in processes that have fixed deadlines and require a quick turnaround; for instance, seeking ethical approval or preparing articles for publication [36]. This can affect access to resources in terms of planning, undertaking and disseminating service user-controlled research projects.

14.5 Citizen Science

Whilst much participatory research could be described in broad terms as citizen science, the term is most often used to describe a way of crowdsourcing contributions to research from the wider population. This type of participation may require a minimal level of engagement or commitment by members of the public and little or no training. Not all citizen science takes place online, but by using the opportunities the internet provides to communicate with large numbers of people at relatively low cost, citizen science platforms can support extensive data collection and/or analysis. Citizen science may use either qualitative or quantitative methods.

There are two main models for a citizen science project. One involves members of the public in a mass observation exercise. They are invited to contribute to the gathering of large amounts of data, which is then most often submitted to professional researchers for analysis. Some of the most familiar projects using this model are wildlife observations like the Royal Society for the Protection of Birds' annual 'Big Garden Birdwatch' [37]. A citizen science project from Public Health England and the London School of Hygiene and Tropical Medicine is 'Flusurvey' [38]. This maps the incidence of influenza across the UK.

An example of this method being used to gather qualitative data is the Mass Observation project which has asked people to contribute their anonymised opinions and experiences of everyday life, including stories, lists, letters, drawings, diaries, photographs, press cuttings, etc. over a wide variety of topics in the UK since 1981. These are archived and some data can be accessed as part of the University of Sussex's Observing the 1980s project [39].

In the second model, the public is asked to contribute to the analysis of large datasets. Qualitative analysis tasks are typically those which require pattern recognition, a skill in which human beings largely outperform machines. These projects are normally designed so that people can contribute even if they only engage with them for a very short time, and may be described and presented in ways that resemble computer games. Analyses by multiple individuals are aggregated to counter individual errors. Examples of citizen science being used to analyse health data include 'Etch a cell' [40] where people are asked to draw around parts of cells to help identify changes in cell structure and understand the differences between diseased and healthy cells.

Citizen science websites frequently provide information and links to research, providing a way of engaging the wider public in understanding the value of science. Both the models of the public as data collectors and as analysts also have a pragmatic element of using the public as a research resource to enhance research capacity. Most citizen science projects are instigated and managed by professional researchers. Yet there are some, like the West Oakland Environmental Indicators Project (see Box 14.4), which have grown from a local community desire to address a public health issue, and so have features in common with service user-controlled research. Others have been driven by patients and

Box 14.4 The Particulate Matter Survey: West Oakland Environmental Indicators Project [42]

The West Oakland Environmental Indicators Project is a resident-led organisation focusing on creating healthy neighbourhoods. It is based in West Oakland California, where a high incidence of asthma and coronary heart disease raised local concerns about the impacts of air pollution from industry and traffic.

The Project's particulate matter survey involves ordinary citizens using small portable particulate sensors to collect data about the levels of pollution they encounter in the course of their daily lives. They can then upload their data online where it is mapped giving a detailed picture of air quality on frequently travelled routes, and around homes and schools. This is intended to enable a more realistic model of individual, street-level, exposure than is provided by the static monitors used to gather government data.

The focus of the Project is on providing residents with evidence they can use to improve their neighbourhood environment and to bring about better health outcomes in their community. It is also hoped that it will support technical development of low-cost portable sensors which could be used by other researchers and campaigners, as well as increasing community engagement with science.

carers wanting to share information to improve their own understanding of their condition. The website Patients Like Me [41] provides a platform which is a mixture of citizen science and social networking for patients. The site enables patients to share their personal stories as well as data about their health conditions and the treatments they have experienced. It also provides access to information about illness and available treatments whilst enabling peer support and learning between patients with the same conditions.

14.6 Conclusion

We have described participatory health research in health care as a cluster of practices in which patients, service users, carers, or members of the public contribute to research. This participation is one form of patient and public involvement (PPI) in health research, which may sit alongside other forms of PPI – such as membership of a project steering group or as co-applicants on research grant proposals. In the context of this book, it is important to emphasise that participatory research is not synonymous with qualitative research, but it has been included here because, as we have shown, it often uses qualitative methods and may be informed philosophically by interpretivist approaches to data.

References

1 Arnstein, S.A. (1969). Ladder of citizen participation. *Journal of the American Planning Association* **35** (4): 216–224.

2 Wilcox, D. (1994). *The Guide to Effective Participation*. Brighton: Delta Press.

3 Carman, K.L., Dardess, P., Maurer, M. et al. (2013). Patient and family engagement: a framework for understanding the elements and developing interventions and policies. *Health Affairs (Millwood)* **32**: 223–231.

4 Assumpção, T.H., Popescu1, I., Andreja, J., and Solomatine, D.P. (2018). Citizen observations contributing to flood modelling: opportunities and challenges. *Hydrology and Earth System Sciences* **22**: 1473–1489.

5 Bishop, P. and Davis, G. (2002). Mapping public participation in policy choices. *Australian Journal of Public Administration* **61** (1): 14–29.

6 Maguire, K., Garside, R., Poland, J. et al. (2019). Public involvement in research about environmental change and health: a case study. *Health* **23** (2): 215–233.

7 Tritter, J.Q. and McCallum, A. (2006). The snakes and ladders of user involvement: moving beyond Arnstein. *Health Policy* **76** (2): 156–168.

8 Beresford, P. (2002). User involvement in research and evaluation: liberation or regulation? *Social Policy and Society* **1** (02): 95–105.

9 Gradinger, F., Britten, N., Wyatt, K. et al. (2013). Values associated with public involvement (PI) in health and social care research: a narrative review. *Health Expectations* **18**: 661–675.

10 Brunton, G., Thomas, J., O'Mara-Eves, A. et al. (2017). Narratives of community engagement: a systematic review-derived conceptual framework for public health interventions. *BMC Public Health* **17** (1): 944.

11 Wynne, B. (2006). Public engagement or dialogue as a means of restoring public trust in science? Hitting the notes but missing the music. *Community Genetics* **9** (3): 211–220.

12 Williamson, C. (2010). *Towards the Emancipation of Patients*. Bristol: The Policy Press.

13 Oliver, M. (1997). Emancipatory research: realistic goal or impossible dream? In: *Doing Disability Research* (eds. C. Barnes and G. Mercer), 15–31. Leeds: The Disability Press.

14 Smith, G., Bartlett, A., and King, M. (2004). Treatments of homosexuality in Britain since the 1950s – an oral history: the experience of patients. *BMJ* **328**: 427–428.

15 Park, P. (2006). Knowledge and participatory research. In: *eds The Handbook of Action Research* (eds. P. Reason and H. Bradbury), 27–37. London: SAGE.

16 Batalden, M., Batalden, P., Margolis, P. et al. (2016). Coproduction of healthcare service. *BMJ Quality and Safety* **25**: 509–517.

17 Point of Care Foundation EBCD: Experience-based co-design toolkit. 2013 www.pointofcarefoundation.org.uk/resource/experience-based-co-design-ebcd-toolkit (accessed 4 May 2019).

18 Tsianakas, V., Maben, J., Wiseman, T. et al. (2012). Using patients' experiences to identify priorities for quality improvement in breast cancer care: patient narratives, surveys or both? *BMC Health Services Research* **12**: 271.

19 Hewlett, S., Wit, M., Richards, P. et al. (2006). Patients and professionals as research partners: challenges, practicalities, and benefits. *Arthritis and Rheumatology* **55** (4): 676–680.

20 Maguire, K. and Britten, N. (2018). You're there because you are unprofessional: patient and public involvement as liminal knowledge spaces. *Sociology of Health and Illness* **40** (3): 463–477.

21 Fraser, N. Rethinking recognition. *New Left Review* (3 May–June 2000)

22 McGrath, J. Co-production: an inconvenient truth? Kings Fund. 2016. www.kingsfund.org.uk/blog/2016/10/co-production-inconvenient-truth (accessed 4 May 2019).

23 Fals Borda, O. (2006). Participatory (action) research in social theory. In: *The Handbook of Action Research* (eds. P. Reason and H. Bradbury), 27–37. London: SAGE.

24 Bergold, J. and Thomas, S. (2012). Participatory research methods: a methodological approach in motion. *Forum: Qualitative Social*

Research **13** (1) http://www.qualitative-research.net/index.php/fqs/article/view/1801/3334 (accessed 4 May 2019).

25 Spaniol, S. (2005). Learned hopefulness: an arts-based approach to participatory action research. *Art Therapy: Journal of the American Art Therapy Association* **22** (2): 86–91.

26 Ungar, M., McGrath, P., Black, D. et al. (2015). Contribution of participatory action research to knowledge mobilization in mental health services for children and families. *Qualitative Social Work* **14** (5): 599–615.

27 Hye-cheon, K.H., Linnan, L., Campbell, M.K. et al. (2006). The WORD (wholeness, oneness, righteousness, deliverance): a faith-based weight-loss program utilizing a community-based participatory research approach. *Health Education and Behavior* **35**: 634–650.

28 Choudhry, U.K., Jandu, S., Mahal, J. et al. (2002). Health promotion and participatory action research with south Asian women. *Journal of Nursing Scholarship* **34** (1): 75–81.

29 Cooke, B. and Kothari, U. (2001). *Participation The New Tyranny?* London: Zed.

30 Evans, C. and Jones, R. (2004). Engagement and empowerment, research and relevance: comments on user-controlled research. *Research, Policy and Planning* **22** (2): 5–13.

31 Maguire, K. Public and patient involvement in theory and practice. PhD Thesis, Exeter: Peninsula College of Medicine and Dentistry; 2014

32 Faulkner, A. and Nicholls, V. (2002). *User-Led Research: Towards a Radically Different Mental Health System*. London: Mental Health Foundation http://www.critpsynet.freeuk.com/Faulkner.htm (accessed 4 May 2019).

33 Oliver, M. (1997). Emancipatory research: realistic goal or impossible dream. In: *Doing Disability Research* (eds. C. Barnes and G. Mercer), 15–31. Leeds: The Disability Press.

34 Faulkner, A. and Thomas, P. (2002). User-led research and evidence-based medicine. *British Journal of Psychiatry* **180** (1): 1–3.

35 Branfield, F. and Berrisford, P. (2006). *Making User Involvement Work: Supporting Service User Networking and Knowledge*. Joseph Rowntree Foundation: York.

36 McLaughlin, H. (2010). Keeping service user involvement in research honest. *British Journal of Social Work* **40** (5): 1591–1608.

37 RSPB. Big Garden Birdwatch. 2019. www.rspb.org.uk/get-involved/activities/birdwatch (accessed 4 May 2019).

38 FluSurvey. 2019. https://flusurvey.net (accessed 4 May 2019).

39 Mass Observation Project. Observing the 80s. 2019. http://blogs.sussex.ac.uk/observingthe80s/home/mass-observation (accessed 4 May 2019).

40 Zooniverse. Etch a cell. 2019. https://www.zooniverse.org/collections/eleonora01/etch-a-cell (accessed 4 May 2019)

41 Patients Like Me. 2019. https://www.patientslikeme.com/?format=html (accessed 4 May 2019).

42 West Oakland Environmental Indicators Project. 2019. http://www.woeip.org (accessed 4 May 2019).

Further Reading

Higginbottom, G. and Liamputtong, P. (2015). *Participatory Qualitative Research Methodologies in Health*. London: SAGE.

15

Quality in Qualitative Research

Nicholas Mays[1] *and Catherine Pope*[2]

[1] *Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK*
[2] *Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK*

15.1 Introduction

Thus far, this book has outlined the main methods of data collection and analysis used in qualitative health care research. As noted in Chapter 1, qualitative methods have long been used in the social sciences, but their use in health and health care research is comparatively recent. Over the last 25 years, qualitative methods have been used increasingly in health services research and health technology assessment, and there has been a corresponding rise in the reporting of qualitative research studies in medical, nursing, and related journals [1]. Interest in these methods and their wider exposure in the field of health and health care research have led to necessary scrutiny of qualitative research. Researchers from other traditions are increasingly concerned to understand qualitative methods and, most importantly, to examine the claims researchers make about the findings obtained from these methods. The issue of 'quality' in qualitative research is part of a much larger and contested debate about the nature of the knowledge produced by qualitative research, whether its quality can legitimately be judged according to a single set of general principles and, if so, how.

Qualitative research in health and health services has had to overcome prejudice and a number of misunderstandings. For example,

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.

some people believe that qualitative research is ‘easy’ – a soft option that requires no skills or training. In fact, the opposite is more likely to be the case. The data generated by qualitative studies are cumbersome and difficult to analyse well, and their analysis requires a high degree of interpretative skill. Qualitative research also suffers from the ‘stigma of the small *n*’ [2] because it tends to deal with a small number of settings or respondents and does not seek to be statistically representative. However, strictly speaking, this feature is irrelevant to the strength of the approach.

Nonetheless, the status of all forms of research depends on assessing the quality of the methods used and the results generated by these methods. In the field of qualitative research, concern to be able to assess quality has manifested itself in the proliferation of guidelines for doing and judging qualitative work, particularly in the health field [3–11]. This has been further stimulated by the extension of systematic literature reviews to include qualitative studies, leading to a call for tools to assess the quality of included studies similar to those used for quantitative studies, such as clinical trials of the effectiveness of treatments. Those using and funding research have also played an important role in the development of these guidelines as they become increasingly familiar with qualitative methods, but require some means of assessing their quality and of distinguishing ‘good’ and ‘poor’ quality research. To this end, the English National Health Service (NHS) Research and Development Programme (now the National Institute for Health Research) funded a review of qualitative research methods relevant to health technology assessment in the mid-1990s [12]. However, while the sponsors of this review may have hoped for a small set of simple quality guidelines to emerge, any thoughtful analysis of the issue is inevitably far more complex.

Subsequently, the United Kingdom (UK) Cabinet Office commissioned a study to develop a framework to guide assessments of the quality of qualitative evaluation research. This project was a response to the fact that the Government was commissioning and using an increasing number of qualitative policy and programme evaluation studies, but without access to any explicitly agreed standards as to what constituted good quality in qualitative research [7]. This framework remains influential and is the basis of the discussion of quality below, supplemented in a small way by further criteria taken from more recent tools for critical appraisal of qualitative health research.

In outlining some of the most frequently used qualitative methods and demonstrating their contemporary application in health and health care research, Chapters 4–8 of this book have referred to the strengths and limitations of particular methods. This chapter outlines two views of how qualitative methods might be judged. It goes on to argue that qualitative research can be assessed with reference to the same broad criteria of quality as quantitative research, albeit the meaning attributed to these criteria may not be exactly the same and they may be assessed differently. The chapter concludes with a list of questions that can be used as a guide to assessing the quality of a piece of qualitative research, derived largely from the review by Spencer et al. [7] introduced above.

15.2 Can We Use the Same Quality Criteria to Judge Qualitative and Quantitative Research?

There has been considerable debate among qualitative researchers over whether qualitative and quantitative methods can and should be assessed according to the same quality criteria. The debate is complex because there is an underlying lack of consensus about precisely what qualitative research is and the variety of approaches to data collection and analysis included under this heading. Other than the total rejection of any quality criteria on the extreme relativist grounds that social reality does not exist independently of human constructions or accounts of that reality, thereby making assessments of ‘quality’ impossible and irrelevant (see below) [13], it is possible to identify two broad, opposing positions [14]. First, there are those who have argued that qualitative research represents a distinctive paradigm that generates a different type of knowledge from quantitative research. Therefore, different quality criteria should apply, even though ‘quality’ can still be described and assessed. Second, there are those who have argued that there is no separate philosophy of knowledge underpinning qualitative research as a whole and so the same criteria in general terms can legitimately be applied to qualitative and quantitative research (see Chapter 2 for more on this). Within each position, it is possible to see a range of views. Much of the debate within and between these two positions, which are briefly summarised below, concerns different concepts of ‘validity’ and to a lesser extent of ‘reliability’ (that is, the reproducibility of qualitative findings) [7]. Concepts of 'validity' include the more obvious notions of the truth and/or credibility of findings, but can also include notions of the value or worth of the findings of a piece of qualitative research.

15.2.1 Qualitative and Quantitative Research are Separate and Different: The Anti-Realist Position

Advocates of this position argue that since qualitative research represents a distinct paradigm that generates a distinct form of knowledge, it is inappropriate to apply criteria derived from an alternative paradigm. This means that qualitative research cannot and should not be judged by conventional measures of validity (the test of whether the research is true to some underlying reality), generalisability (the degree to which the specifics of the research can be applied more widely to other settings and populations) and reliability (the extent to which the same findings can be produced by repeating the research procedures). For those who adopt this anti-realist position, it would also be inappropriate to use mixed or multiple methods in the same study.

At the core of this position is a rejection of what Lincoln and Guba [15] call 'naïve realism' – a belief that there is a single, unequivocal social reality or truth that is entirely independent of the researcher and of the research process. Instead, they suggest that '"truth" is defined as the best informed ... and most sophisticated ... construction on which there is consensus (although there may be several constructions extant which simultaneously meet that criterion) ... the inquirer and the inquired are interlocked in such a way that the findings of an investigation are the *literal creation* of the inquiry process' [15].

As touched on above, there are still more extreme relativists who hold that there is no basis even for the consensus referred to by Guba and Lincoln, and that all research perspectives are unique and each is equally valid in its own terms. The absence of any external standards would clearly make it impossible for one researcher to judge another's research [13]. Yet, as Murphy et al. note, in health services research such an extreme relativist position precludes qualitative research from deriving any unequivocal insights relevant to action and would, therefore, command little support among applied health researchers [12].

Those relativists who maintain that separate criteria are required to evaluate qualitative research have put forward a range of different assessment schemes. In part, this is because the choice and relative importance of different criteria of quality depend on the topic and the purpose of the research. If the key question for qualitative researchers is: 'Why do people do what they do?' then for Popay et al. research quality relates to the sampling strategy, adequacy of theory, collection and analysis of data, the extent to which the context has been understood, and whether the knowledge generated incorporates an understanding of the nature of the subjective meanings that people use to make sense of the world in their social contexts [16]. From this perspective, while there may be some broad similarities between quality standards in quantitative and qualitative research – that is, similar concerns with truth, applicability, consistency, and neutrality of research – the fundamental differences in the knowledge each approach generates require that quality is assessed differently in the two traditions [17].

Hammersley has attempted to summarise the different quality criteria and concerns of the relativists (or anti-realists), as follows. [14]

- The degree to which substantive and formal theory is produced and the degree of development of such theory.
- The novelty of the claims made from the theory.
- The consistency of the theoretical claims with the empirical data collected.
- The credibility of the account to those studied and to readers.
- The extent to which the description of the culture of the setting would provide a basis for competent performance in the culture studied.
- The extent to which the findings are transferable to other settings.
- The reflexivity of the account – that is, the degree to which the effects of the research strategies on the findings are assessed and/or the amount of information about the research process that is provided to readers.

These criteria are open to challenge. For example, it is arguable whether all research should be concerned to develop theory. At the same time, many of the criteria listed are not necessarily even exclusive to qualitative research (for example, the extent to which findings are transferable to other settings), suggesting that there is at least some case for assessing both qualitative and quantitative research against the same broad guiding principles, even if that assessment has to be tailored to the type of research.

15.2.2 It Is Possible to Assess Qualitative and Quantitative Research Using Similar Criteria: The Subtle Realist Position

Hammersley [18] and Kirk and Miller [19] agree that all research involves the researcher's subjective perceptions and observations, and that different methods will produce different pictures of the social phenomena being studied. However, unlike the anti-realists, they argue that this does not mean that we cannot believe in the existence of phenomena independent of our claims about them; that is, they argue that there is some underlying reality that may be studied, however imperfectly. The role of qualitative and quantitative research is thus to attempt to represent that reality rather than to imagine that 'the truth' can be attained. Hammersley calls this *subtle realism*. The logic of this position is that there are ways to assess the different perspectives offered by different research processes against each other, and against criteria of quality common to both qualitative and quantitative research. Hammersley identifies the common criteria of validity and relevance (by which he means whether research touches on issues that matter to people) as being fundamental [14]. However, the means of assessing quality may be modified to take account of the distinctive goals of qualitative and quantitative research. For example, qualitative research generally does not seek to generalise to a wider population for predictive purposes, but seeks to understand specific behaviour in a naturally occurring context. Similarly, reliability, as conventionally defined, may be of little importance if unique situations cannot be reconstructed or if the setting studied is undergoing considerable social change [20]. Murphy et al.'s review [12] supports Hammersley's case [14] for assessing such research according to its validity, defined as the extent to which the account accurately represented the social phenomena to which it referred, and its relevance – defined in terms of the capacity of the research to help some group – such that health care practitioners can solve the problems they face. Each broad criterion will be discussed in turn from a subtle realist perspective.

15.3 Assuring and Assessing the Validity of Qualitative Research

There are no mechanical or 'easy' solutions to limit the likelihood that there will be errors in qualitative research. Furthermore, there is no single way to separate out 'good' from 'bad' qualitative research because it is so diverse. However, there are various ways of improving validity, each of which requires the exercise of judgement on the part of the researcher and, ultimately, the reader of the research. Six are briefly described below, starting with triangulation.

15.3.1 Triangulation

Triangulation is a term borrowed from navigation and orienteering. It is used to describe the process of comparing the results from either two or more different methods of data collection (for example, interviews and observation) or from two or more data sources (for example, interviews with members of different interest groups) to develop or corroborate an overall interpretation. Whilst triangulation is generally accepted as a means of ensuring the comprehensiveness of a set of findings, it is more controversial as a genuine test of the truthfulness (i.e. validity of a study). Triangulation as a test of validity relies on the assumption either that any weaknesses in one method will be compensated by strengths in another, or that agreement between findings from two different methods can be interpreted as strengthening the confidence which can be placed in the findings. In practice, findings may diverge or support contradictory interpretations. Sometimes, qualitative methods will reveal inadequacies in quantitative measures or show that quantitative results are at odds with observed behaviour. For example, Stone and Campbell's depth interviews in Nepal (mentioned in Chapter 1) revealed very different reported behaviour and attitudes towards, and in relation to, abortion and family planning from those recorded in formal fertility surveys, because of the different ways in which questions are posed and responded to in surveys and depth interviews [21]. Similarly, Meyer's multi-method study of lay participation in ward-level hospital care highlighted the gap between the findings derived from attitudinal scales and everyday talk about, and practice in relation to, lay involvement in care [22].

Silverman argues that data from different sources can only be used to identify the context-specific nature of differing accounts and behaviour [23]. He points out that discrepancies between different data sources (such as from doctors and their patients) present a problem of adjudication between rival accounts. It cannot be assumed on a priori grounds that one account is to be believed over another. Thus, triangulation may be better seen as a way of making a study more comprehensive, or of encouraging a more *reflexive* analysis of the data (see below) rather than as a pure or simple way of assuring validity.

15.3.2 Respondent Validation

Respondent validation, or member checking as it is sometimes called, includes a range of techniques in which the investigator's interpretation is compared with the accounts of those who have been investigated by providing research participants with the researcher's account in order to establish the level of correspondence between the two sets. The reactions of those studied to the researcher's interpretation are then incorporated into the study findings. Lincoln and Guba [15] regard respondent validation as the strongest available check on the credibility of a research project. However, there are limitations to this technique as a validation test. For example, the account produced by the researcher is generally designed for a wider audience and will, inevitably, be different from the account of an individual informant simply because of their different roles in the research process and their access to different bodies of data. Furthermore, it is possible that individual informants have personal reasons for promoting specific accounts and criticising interpretations of events that do not support their self-interest. This is particularly likely in research on controversial topics or in evaluations of programmes where at least some of the informants were responsible either for initiating or implementing the programme. As a result, it is better to think of respondent validation as part of a process of error reduction, which also generates further original data – which, in turn, require interpretation – rather than as a straightforward check on validity [24].

15.3.3 Clear Exposition of Methods of Data Collection and Analysis

Since the methods used in all types of social research unavoidably potentially influence the objects of enquiry (and qualitative researchers are particularly aware of this), it is important to provide a clear account of the process of data collection and analysis. This is so that readers can judge the evidence upon which conclusions are drawn, taking into account the way that the evidence was gathered and analysed. For example, in an observational study, it would be particularly pertinent to document the period of time over which observations were made and the extent of the researcher's access to the research setting (e.g. the range of settings, people, and activities which s/he was able to observe).

A common failing of qualitative research reports is an inadequate account of the process of data analysis (see Chapter 9). This is compounded by the inductive nature of much qualitative work in which extensive prior conceptualisation is largely inappropriate since the aim is to develop new concepts and categories, and identify their inter-relationships through the process of undertaking the analysis. As a result, the processes of data collection and analysis are frequently interwoven. Nonetheless, by the end of the study, it should be possible to provide a clear account of how earlier, simpler systems of classification evolved into more sophisticated coding structures, and thence into clearly defined concepts and explanations for the data collected. In some situations, it may be appropriate to assess the inter-rater reliability of coding by asking another researcher independently to code some of the raw data using coding criteria previously agreed. Where this is not feasible or appropriate (see Chapter 9 for more on this), it may be preferable to show that a range of potential explanations has been explored to make sense of the data collected. Finally, it is important to include in the written account sufficient data to allow the reader to judge whether the interpretation offered is adequately supported by the data. This is one of the reasons why qualitative research reports are generally longer than those of quantitative studies, since it can be difficult to summarise the data that support a concept or explanation as economically as is possible with a quantitative graph or table.

15.3.4 Reflexivity

Reflexivity means sensitivity to the ways in which the researcher and the research process have shaped the data collected, including the role of prior knowledge, assumptions, and experience, which can influence even the most avowedly inductive enquiries. Researchers can keep a personal research diary alongside the data collection and analysis in which to record their reactions to events occurring during the research and their changing interpretation of what they are witnessing. Furthermore, they can and should make their personal and intellectual biases plain at the outset of any research reports to enhance the credibility of their findings and help the reader interpret the findings and conclusions. The effects of personal characteristics such as age, gender, social class, and professional status (for example that of doctor, nurse, physiotherapist, sociologist, etc.) on the data collected and the 'distance' between the researcher and those researched also need to be discussed.

15.3.5 Attention to Negative Cases

As well as exploring alternative explanations for the data collected, a long-established tactic for reducing error is to search for, analyse in detail, and discuss in the written account, elements in the data that contradict, or appear to contradict, the emerging explanation of the phenomena under study. Such *deviant case analysis* helps refine the analysis until it can explain all or the vast majority of the cases under scrutiny. It is similar to the Popperian quest for evidence that disproves established theories and formal hypotheses in the natural sciences and can help counteract some of the preconceptions that all researchers bring to their research. In this way, it can contribute to increasing the sophistication and credibility of research reports [25]. Another version of deviant or negative case analysis is to attempt to incorporate seemingly different findings from different studies into a more refined, overarching synthesis (see Chapter 11).

15.3.6 Fair Dealing

The final technique for improving validity in qualitative research is to ensure that the research design explicitly incorporates data from a wide range of different perspectives so that the viewpoint of one group is never presented as if it represents the sole truth about any situation. Dingwall [26] coined the term 'fair dealing' to describe this process of attempting to be non-partisan; for him, fair dealing marks the difference between social science and 'muck-raking journalism'. However, this concern to deal even-handedly with all those studied is not shared by all researchers. Indeed, there is a long tradition in sociology, dating from the 1920s Chicago School, of adopting the perspective of the 'underdog' against the dominant views of powerful elites [27]. This position has been severely mauled in recent times: Strong scathingly described it as being more concerned with being 'right on' than with being right [28]. For example, in qualitative health care research, especially when undertaken by researchers with a clinical background, there is a risk of assuming that greater weight should invariably be given to the accounts of ‘front line’ staff than those of managers and those occupying governance roles.

15.4 Relevance

Hammersley’s second principle of quality common to quantitative and qualitative research is ‘relevance’. He argues that good quality qualitative research has to be relevant in some way to a public concern, though this does not necessarily mean that the research should slavishly adhere to the immediate concerns or problems defined by policy-makers, professionals, or managers [14]. Research can be relevant when it either adds to knowledge or increases the confidence with which existing knowledge is regarded.

Another important dimension of relevance is the extent to which findings can be transferred beyond the setting in which they were generated. Quantitative researchers frequently criticise qualitative studies for their lack of statistical representativeness and resultant lack of generalisability. It is important to ensure that the research report has sufficient descriptive detail for the reader to be able to judge whether or not the findings apply in other similar settings.

It must be remembered that qualitative research does not rely on statistical logic. The extent to which inferences can be drawn from one setting to another depends on the adequacy of the explanatory theory on which they are based rather than statistical representativeness [25]. Thus, the test is whether categories of cases or settings that are theoretically similar behave in the same way, rather than cases or settings that are substantively similar. One way of looking at this is to explore the extent to which the sample of cases studied includes the full range of potentially relevant cases. This is *theoretical sampling,* in which an initial sample is drawn to include as many as possible of the factors that might affect variability in the behaviour being studied, but is then extended, as required, in the light of early findings and emergent theory explaining that behaviour [2]. In conceptual or theoretical sampling, statistical ‘minority’ groups are frequently over-represented in order to test whether the emerging explanations are equally robust when applied to widely differing populations. The full sample, therefore, attempts to include the full range of settings relevant to the conceptualisation of the subject.

15.5 The Appropriate Role for Quality Guidelines in Qualitative Research

The hotly contested debate about whether quality criteria should be applied to qualitative research, together with the differences of view between ‘experts’ about which criteria are appropriate and how they should be assessed, should warn against unthinking reliance on any one set of guidelines derived from these criteria of quality either to use when undertaking such research in the first place, or subsequently to judge the quality of research outputs (e.g. when considering which studies to include in a systematic review). As the preceding sections of this chapter have begun to show, most of the individual criteria proposed in guidelines are not straightforward to assess. Each requires judgements to be made. As mentioned previously, a number of checklists have been published to help in a practical way to judge the quality of qualitative work [3–11]. These checklists cover a wide range of aspects of research that may potentially be relevant to the rigour of individual qualitative studies of various types.

A rigorously developed and widely used framework, mentioned above, was produced by Spencer and her colleagues in the early 2000s and is summarised below [7]. This was an attempt to bring some order to the disparate frameworks then in existence. The authors systematically reviewed the research literature on concepts, standards and measures of the quality of qualitative research, including all the existing frameworks (they identified 29 written in English in 2002). The research team also interviewed a wide range of qualitative researchers and users of research in order to produce a framework for assessing qualitative evaluations of social policies and programmes. The framework is based on the perspective, which we share, that the concerns that lie behind conventional (quantitative) conceptions of quality have relevance for qualitative enquiry, but need to be reformulated and assessed somewhat differently.

The framework drew heavily on previous quality assessment criteria and checklists, and attempted to build on the most practicable of the approaches then available. The framework requires relatively little or no augmentation to take account of the criteria included in more recent tools for critical appraisal of qualitative health research.

The authors emphasise wisely that it is an aid to informed judgement of quality, not a set of rules to be applied invariantly to all qualitative studies though it is relevant to most types of qualitative research. It is most applicable to accounts of evaluative, qualitative research which has been undertaken using the commonest methods; namely, individual interviews, focus groups, observation, and documentary analysis. Nevertheless, the principles and many of the questions suggested can be applied to qualitative research using a wider range of methods (e.g. conversation or linguistic analysis, archival or historical research, multimedia methods, etc.), and, with suitable modification, to non-evaluative research. Though the framework was primarily designed to assess the outputs of completed research, most of the questions can also be used by researchers at different times during the life of a research project in order to help improve its quality or by those preparing or assessing research proposals.

15.5.1 Spencer and Colleagues' Framework for Assessing the Quality of Qualitative Research Evidence

The framework comprises a set of guiding principles, a set of appraisal questions and, for each question, a set of quality indicators.

15.5.1.1 Guiding Principles

There are four principles derived from recurrent themes in the literature and interviews conducted that underpin the framework and help structure the set of appraisal questions. The principles indicate that qualitative evaluation research should be:

- *contributory* in advancing wider knowledge or understanding about policy, practice, or theory (close to the notion of 'relevance' discussed above);
- *defensible in design* by providing a research strategy that can address the questions posed (i.e. the methods of enquiry should be appropriate to the objectives of the study);
- *rigorous in conduct* through the systematic and transparent collection, analysis, and interpretation of qualitative data (this includes the specific techniques for ensuring validity discussed above);
- *credible in claim* through offering well-founded and plausible arguments about the significance of the evidence generated.

Table 15.1 Framework for assessing quality of qualitative studies, particularly policy evaluations.

Features/ processes of the study	**Appraisal questions**	**Quality indicators (i.e. possible features of the study for consideration)**
Findings	1. How credible are the findings?	Findings are supported by data/study evidence. Findings 'make sense'; i.e. have a coherent logic. Findings are resonant with other knowledge. Corroborating evidence is used to support or refine findings (other data sources or other research evidence).
Findings	2. How has knowledge or understanding been extended by the research?	Literature review summarising previous knowledge and key issues raised by previous research. Aims and design related to existing knowledge, but identify new areas for investigation. Credible, clear discussion of how findings have contributed to knowledge and might be applied to policy, practice, or theory development. Findings presented in a way that offers new insights or alternative ways of thinking. Limitations of evidence discussed and what remains unknown or unclear.
Findings	3. How well does the study address its original aims and purpose?	Clear statement of aims and objectives, including reasons for any changes. Findings clearly linked to purposes of the study. Summary/conclusions related to aims. Discussion of limitations of study in meeting aims.
Findings	4. How well is the scope for making wider inferences explained?	Discussion of what can be generalised to the wider population from which the sample was drawn or cases selected. Detailed description of the contexts in which the data were collected to allow assessment of applicability to other settings. Discussion of how propositions/findings may relate to wider theory and consideration of rival explanations. Evidence supplied to support claims for wider inference. Discussion of limitations on drawing wider inferences.

(*Continued*)

Table 15.1 (Continued)

Features/ processes of the study	Appraisal questions	Quality indicators (i.e. possible features of the study for consideration)
Findings	5. How clear is the basis of evaluative appraisal? *(only relevant to evaluations)*	Discussion of how evaluative judgements (e.g. of effectiveness) have been reached. Description of any formal appraisal criteria used. Discussion of nature and source of any divergence in evaluative appraisals. Discussion of any unintended consequences of policy/intervention, their impact and why they arose.
Design	6. How defensible is the research design?	Discussion of how the overall research strategy was designed to meet the aims of the study. Discussion of rationale for study design. Convincing argument for specific features/components. Use of different features and data sources evidence in findings presented. Discussion of limitations of design and their implications for evidence produced.
Sample	7. How well defended is the sample design or target selection of cases/ documents?	Description of study locations, and how and why chosen. Description of population of interest and how sample selection relates to it. Rationale for selection of target sample, settings or documents. Discussion of how sample/selections allowed necessary comparisons to be made.
Sample	8. How well is the eventual sample composition/case inclusion described?	Detailed description of achieved sample/cases covered. Efforts taken to maximise inclusion of all groups. Discussion of any missing coverage in achieved samples/cases and implications for study evidence. Documentation of reasons for non-participation among sample approached or cases selected. Discussion of access and methods of approach, and how these might have affected coverage.

Data collection	9. How well were the data collected?	Discussion of who collected the data; procedures and documents used; checks on origin, status, and authorship of documents. Audio- or video-recording of interviews, focus groups, discussions, etc. (if not, were justifiable reasons given?) Description of conventions for taking fieldnotes. Description of how fieldwork methods may have influenced data collected. Demonstration, through portrayal and use of data. that depth, detail, and richness were achieved in collection.
Analysis	10. How well has the analysis been conveyed?	Description of form of original data (e.g. transcripts, observations, notes, documents, etc.) Clear rationale for choice of data management method, tools, or software package. Evidence of how descriptive analytic categories, classes, labels, etc. were generated and used. Discussion, with examples, of how any constructed analytic concepts, typologies, etc. were devised and used.
Analysis	11. How well are the contexts of data sources retained and portrayed?	Description of background, history and socioeconomic/organisational characteristics of study sites/settings. Participants' perspectives/observations are placed in personal context (e.g. use of case studies, vignettes, etc. are annotated with details of contributors). Explanation of origins of written documents. Use of data management methods that preserve context (i.e. facilitate within case analysis).
Analysis	12. How well has diversity of perspectives and content been explored?	Discussion of contribution of sample design/case selection to generating diversity. Description of diversity/multiple perspectives/ alternative positions in the evidence displayed. Evidence of attention to negative cases, outliers or exceptions (deviant cases). Typologies/models of variation derived and discussed. Examination of reasons for opposing or differing positions. Identification of patterns of association/linkages with divergent positions/groups.

(*Continued*)

Table 15.1 (Continued)

Features/ processes of the study	Appraisal questions	Quality indicators (i.e. possible features of the study for consideration)
Analysis	13. How well has detail, depth and complexity (i.e. richness) of the data been conveyed?	Use and exploration of contributors' terms, concepts and meanings. Portrayal of subtlety/intricacy within data. Discussion of explicit and implicit explanations. Detection of underlying factors/influences. Identification of patterns of association/conceptual linkages within data. Presentation of illuminating textual extracts/observations.
Reporting	14. How clear are the links between data, interpretation and conclusions?	Clear conceptual links between analytic commentary and presentation of original data (i.e. commentary relates to data cited). Discussion of how/why a particular interpretation is assigned to specific aspects of data, with illustrative extracts to support this. Discussion of how explanations, theories, and conclusions were derived; how they relate to interpretations and content of original data; and whether alternative explanations were explored. Display of negative cases and how they lie outside main propositions/theory; or how propositions/theory revised to include them.
Reporting	15. How clear and coherent is the reporting?	Demonstrates link to aims/questions of study. Provides a narrative or clearly constructed thematic account. Has structure and signposting that usefully guide reader. Provides accessible information for target audiences. Key messages are highlighted or summarised.

Reflexivity and neutrality	16. How clear are the assumptions, theoretical perspectives and values that have shaped the research and its reporting?	Discussion/evidence of main assumptions, hypotheses and theories on which study was based and how these affected each stage of the study. Discussion/evidence of ideological perspectives, values, and philosophy of the researchers and how these affected methods and substance of the study. Evidence of openness to new/alternative ways of viewing subject, theories, or assumptions. Discussion of how error or bias may have arisen at each stage of the research, and how this threat was addressed, if at all. Reflections on impact of researcher(s) on research process.
Ethics	17. What evidence is there of attention to ethical issues?	Evidence of thoughtfulness/sensitivity to research contexts and participants. Documentation of how research was presented in study settings and to participants. Documentation of consent procedures and information provided to participants. Discussion of how anonymity of participants/sources was protected, if appropriate or feasible. Discussion of any measures to offer information, advice, support, etc. after the study where participation exposed need for these. Discussion of potential harm or difficulty caused by participation and how avoided.
Auditability	18. How adequately has the research process been documented?	Discussion of strengths and weaknesses of data sources and methods. Documentation of changes made to design and reasons; implications for study coverage. Documents and reasons for changes in sample coverage, data collection, analysis, etc. and implications. Reproduction of main study documents (e.g. interview guides, data management frameworks, letters of invitation).

Source: adapted from Spencer et al. [7], p. 22–28.

15.5.1.2 Appraisal Questions

The guiding principles are used to identify 18 appraisal questions to help assess studies. They cover all the key features and processes involved in qualitative studies: design; sampling; data collection; analysis; reporting; reflexivity and neutrality; ethics; auditability; and assessment of findings. When assessing completed studies, it is suggested that the findings are appraised first since this will help in assessing the research process that preceded them.

15.5.1.3 Quality Indicators

For each appraisal question, there is a series of quality indicators which point to the kinds of information needed to judge whether or not the quality feature concerned has been achieved. Though the list is fairly detailed (see Table 15.1), it is not intended to be comprehensive in that other indicators may need to be added for specific studies and, in turn, not all the indicators will be relevant to all studies being assessed. Some knowledge of qualitative research and some expertise in using qualitative methods is desirable in using the framework, particularly in order to determine the relative weight to give to different indicators in the context of specific studies.

15.5.1.4 The Framework

The full details of the framework and its derivation can be found in Spencer et al. [7] and Table 15.1 provides a summary of this.

15.5.2 Additional Quality Assessment Criteria

More recent quality appraisal frameworks include a small number of additional appraisal questions and related quality indicators not explicitly included in Spencer et al. that are potentially worthy of consideration in specific cases. These are now described in relation to the different aspects of the research process used by Spencer et al. to structure their framework in Table 15.1.

15.5.2.1 Data Collection

Were the methods reliable? For instance, was more than one method of data collection used? If so, was a process of triangulation undertaken? [9]. Spencer et al. discuss whether corroborating evidence is used to support or refine the findings but do not specifically see more than one method of data collection within the study, as opposed to consulting other data sources or other research evidence, as a potential criterion of quality. As discussed above, triangulation is not necessarily straightforward, but a case can be made for regarding the use of different data sources as a potential strength of a qualitative study.

15.5.2.2 Analysis

*Is the analysis reliable and/or reproducible? For example, was a second coder involved and, in the event of differences of view between coders, was there a process for deliberation and arbitration (*e.g. *involving a third researcher)?* [9]. This aspect of the analytical process is not discussed by Spencer et al., perhaps because reproducibility had traditionally not been a major concern of qualitative researchers. Indeed, as mentioned above, some researchers actively rejected the notion that one researcher's interpretation could or should be reproduced by another researcher as constraining creativity. However, double coding, for instance of transcripts, is generally seen as a positive attribute of a study, at least in the health field where concepts of quality derived from quantitative enquiry perhaps carry greater weight than elsewhere in the social sciences.

Is there congruity between the stated philosophical perspective, and the methods, analytical approach and the interpretation of the results? [11]. This theoretical concern is not explicitly addressed in the Spencer et al. schema, though there is a high-level quality indicator related to whether the researchers have discussed the ways in which their philosophy has shaped the methods and findings of the study. For Spencer et al., this appears to be principally a test of whether the researchers are adequately reflexive rather than an assessment of the extent of 'fit' between the researchers' avowed epistemological position and the way that they conducted the research in practice. This type of quality assessment requires a high degree of expertise in qualitative research from different theoretical traditions (see Chapter 2) as Hannes et al. note [11] (p. 6).

15.6 Conclusion

Although the issue of quality in qualitative health and health services research has received considerable attention, as late as 1998, Dingwall and colleagues were able to argue, legitimately, that 'quality in qualitative research is a mystery to many health services researchers' [29]. This chapter has shown how qualitative researchers have endeavoured to remedy this deficiency in their research and in devising frameworks for assessing the quality of reported studies. It has outlined the broad debates about the nature of the knowledge produced by qualitative research and indicated some of the main ways in which the validity and relevance of qualitative studies can be assured. Finally, it has set out what is still one of the most comprehensive and practically useful frameworks for assessing the quality of qualitative studies, supplemented by a small number of additional appraisal questions that it may be helpful to use in specific circumstances.

As in quantitative research, the basic strategy to ensure rigour, and thus quality, in qualitative research, is systematic, self-conscious research design, data collection, interpretation, and communication. Qualitative research has much to offer. Its methods can, and do, enrich our knowledge of health and health care. It is not, however, an easy option or the route to a quick answer. As Dingwall et al. conclude, 'qualitative research requires real skill, a combination of thought and practice and not a little patience' [29].

References

1 Harding, G. and Gantley, M. (1998). Qualitative methods: beyond the cookbook. *Family Practice* **15**: 76–79.

2 Faltermaier, T. (1997). Why public health research needs qualitative approaches: subjects and methods in change. *European Journal of Public Health* **7**: 357–363.

3 Boulton, M. and Fitzpatrick, R. (1994). Qualitative methods for assessing health care. *Quality in Health Care* **3**: 107–113.

4 Blaxter, M. (1996). Criteria for evaluation of qualitative research. *Medical Sociology News* **22**: 68–71.

5 Secker, J., Wimbush, E., Watson, J., and Milburn, K. (1995). Qualitative methods in health promotion research: some criteria for quality. *Health Education Journal* **54**: 74–87.

6 Mays, N. and Pope, C. (1995). Rigour in qualitative research. *BMJ* **311**: 109–112.

7 Spencer, L., Ritchie, J., Lewis, J., and Dillon, L. (2003). *Quality in Qualitative Evaluation: A Framework for Assessing Research Evidence*. London: Government Chief Social Researcher's Office, Prime Minister's Strategy Unit, Cabinet Office https://www.gov.uk/government/publications/government-social-research-framework-for-assessing-research-evidence (accessed 12 October 2019).

8 Hannes, K. (2011). Chapter 4: critical appraisal of qualitative research. In: *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions*. Version 1 (updated August 2011) (eds. J. Noyes, A. Booth, K. Hannes, et al.). Cochrane Collaboration Qualitative Methods Group http://cqrmg.cochrane.org/supplemental-handbook-guidance (accessed 18 April 2019).

9 National Institute for Health and Care Excellence (NICE) (2012). *Methods for the Development of NICE Public Health Guidance: Appendix H. Quality Appraisal Checklist – Qualitative Studies*, 3e, 206–217. London: NICE.

10 Critical Appraisal Skills Programme (CASP) Qualitative research checklist. 2018. Available at https://casp-uk.net/casp-tools-checklists (accessed: 18 April 2019).

11 Joanna Briggs Institute. Critical appraisal tools for use in JBI systematic reviews: checklist for qualitative research. Adelaide: Joanna Briggs Institute, Faculty of Health and Medical Sciences, University of Adelaide. 2016 Available at http://joannabriggs.org/research/critical-appraisal-tools.html (accessed: 18 April 2019).

12 Murphy, E., Dingwall, R., Greatbatch, D. et al. (1998). Qualitative research methods in health technology assessment: a review of the literature. *Health Technology Assessment* **2** (16) https://doi.org/10.3310/hta2160.

13 Smith, J.K. (1984). The problem of criteria for judging interpretive inquiry. *Educational Evaluation and Policy Analysis* **6**: 379–391.

14 Hammersley, M. (1990). *Reading Ethnographic Research*. New York: Longman.

15 Lincoln, Y.S. and Guba, E.G. (1985). *Naturalistic Inquiry*. Newbury Park, CA: SAGE.

16 Popay, J., Rogers, A., and Williams, G. (1995). Qualitative research and the gingerbread man. *Health Education Journal* **54**: 389–443.

17 Popay, J., Rogers, A., and Williams, G. (1998). Rationale and standards for the systematic review of qualitative literature in HSR. *Qualitative Health Research* **8**: 341–351.

18 Hammersley, M. (1992). *What's Wrong with Ethnography?* London: Routledge.

19 Kirk, J. and Miller, M. (1986). *Reliability and Validity in Qualitative Research*, Qualitative Research Methods Series no 1. London: SAGE.

20 Seale, C. and Silverman, D. (1997). Ensuring rigour in qualitative research. *European Journal of Public Health* **7**: 379–384.

21 Stone, L. and Campbell, J.G. (1986). The use and misuse of surveys in international development: an experiment from Nepal. *Human Organisation* **43**: 27–37.

22 Meyer J.E. Lay participation in care in a hospital setting: an action research study. Unpublished PhD thesis. London: University of London; 1995.

23 Silverman, D. (1993). *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*. London: SAGE.

24 Bloor, M. (1997). Techniques of validation in qualitative research: a critical commentary. In: *Context and Method in Qualitative Research* (eds. G. Miller and R. Dingwall), 37–50. London: SAGE.

25 Silverman, D. (1989). Telling convincing stories: a plea for more cautious positivism in case studies. In: *The Qualitative-Quantitative Distinction in the Social Sciences* (eds. B. Glassner and J.D. Moreno), 57–77. Dordrecht: Kluwer Academic.

26 Dingwall, R. (1992). Don't mind him – he's from Barcelona: qualitative methods in health studies. In: *Researching Health Care* (eds. J. Daly, I. McDonald and E. Willis), 161–175. London: Tavistock/Routledge.

27 Guba, E.G. and Lincoln, Y.S. (1989). *Fourth Generation Evaluation*. Newbury Park, CA: SAGE.

28 Strong, P. (1988). Qualitative sociology in the UK. *Qualitative Sociology* **11**: 13–28.

29 Dingwall, R., Murphy, E., Watson, P. et al. (1998). Catching goldfish: quality in qualitative research. *Journal of Health Services Research and Policy* **3**: 167–172.

Further Reading

Noyes, J., Booth, A., Flemming, K., et al. (2018). Cochrane Qualitative and Implementation Methods Group Guidance Paper 2: Methods for assessing methodological limitations, data extraction and synthesis, and confidence in synthesized qualitative findings. *Journal of Clinical Epidemiology* **97**: 49–58.

Dixon-Woods, M., Shaw, R.L., Agarwal, S., and Smith, J.A. (2004). The problem of appraising qualitative research. *Qualitative Research in Health Care* **13**: 223–225.

The Cochrane Qualitative and Implementation Group's Supplemental Handbook Guidance on assessing the methodological quality of qualitative studies can be found at: https://methods.cochrane.org/qi/supplemental-handbook-guidance (accessed 15 September 2019).

Index

Qualitative Research in Health Care, Fourth Edition. Edited by Catherine Pope and Nicholas Mays.