NHS
Imperial College Healthcare
NHS Trust

Introduction to Qualitative Research Design & Methods

Mary Wells

AHSC Starting out in research course

Imperial College
Academic Health
Science Centre

What is qualitative research?

A naturalistic interpretive research approach, concerned with understanding the meanings people attach to phenomena such as actions, decisions, beliefs and values within their social world

(Richie and Lewis, 2003)

Common assumptions about qualitative research

Hierarchy of evidence

QUALITATIVE RESEARCH ?

Level of evidence

Ia Meta-analysis of randomised controll

Ib At least one randomised contr

IIa At least one well-design ut randomisation.

IIb At least one other asi-experimental study.

III Well-design riptive studies, such as compar studies and case studies.

IV Expert c or opinions and/or clinical experiences of respected s.

What kind of evidence do you need?

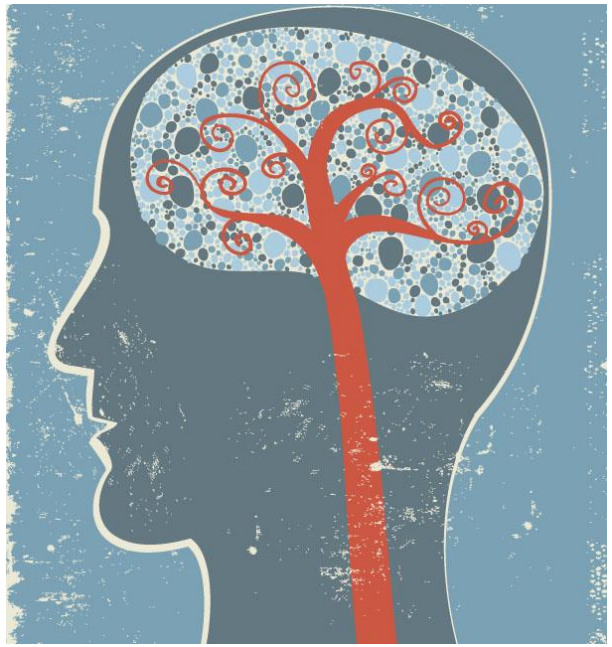
The goal of all research in health technology assessment should be to establish knowledge about which we can be reasonably confident…..Therefore, decisions about whether qualitative or quantitative methods are most appropriate to a particular research problem should be made on the basis of **which approach is likely to answer the question most effectively or efficiently** (HTA 1999)

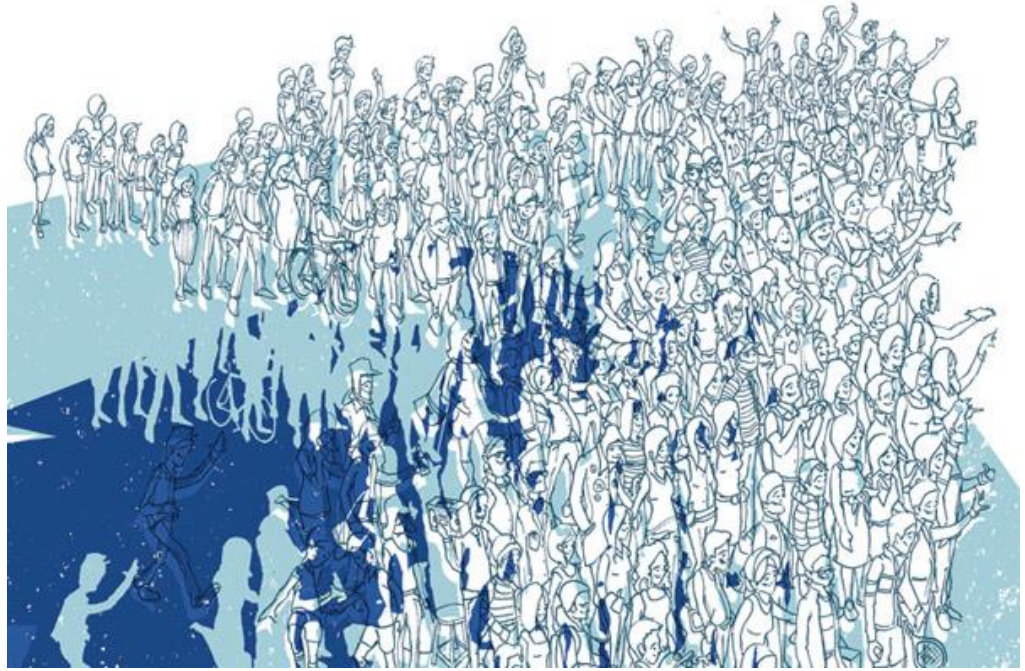
Methodologies cannot be true or false, only more or less appropriate (Atkin & Chatoo 2006)

What types of questions can qualitative research answer best?

Why?

In what way?





How?


three

Use A Qualitative Approach To.....

- Identify and explore people's feelings, beliefs and experiences
- Understand why certain things happened in the way they did – behaviours, processes
- Generate new theory
- Generate hypotheses to be tested later
- Gather data in a naturalistic setting

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Qualitative research is not the same as PPI

Doria *et al. Research Involvement and Engagement* (2018) 4:19
https://doi.org/10.1186/s40900-018-0102-6

Research Involvement and Engagement

COMMENTARY Open Access

We distinguish these two types of activities by using different terms for each. We use *focus groups* to refer to research activities, and *discussion groups* to refer to patient engagement activities. In focus groups, researchers collect data by speaking with a group of research subjects about their experiences. Researchers use this information to answer research questions and share their findings in academic journals and gatherings. In patient engagement, discussion groups are a way for patients to help plan research projects. Their contributions are not treated as research data, but instead they help make decisions that shape the research process. We have found that using different language to refer to each type of activity has led to improved clarity in research planning and research ethics submissions.

But patients can be **involved** in qualitative research

Public and Patient Participation (PPP)

Taking part in a research study – focus group, interview, questionnaire.

Patient and Public Involvement (PPI)

Doing research ‘with’ or ‘by’ people who use services rather than ‘to’, ‘about’ or ‘for’ them – involved in choice of topics, design, advising on the project, carrying out research

Co-design approaches are more likely to be qualitative

NIHR INVOLVE (www.invo.org.uk/)

Qualitative research approaches

- Qualitative research covers a very broad range of philosophical underpinnings and methodological approaches

- Ontology – beliefs about the nature of the social world and what is known about it
- Epistemology – beliefs about the nature of knowledge and how it is obtained

Choice of approach depends on questions and perspective

Qualitative research

- What is reality?
- The Guardian's 1986 'Points of view' advert

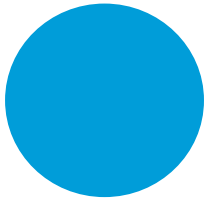
Qualitative research approaches

- Ethnography – immersion in a social world, observation
- Phenomenology – focus on structure and essence of experience of a phenomenon
- Grounded Theory – generation of a theory
- Case Study – detailed examination of one or more social units within their context
- Action Research – focus on solving a problem in action

Choice of approach depends on questions and perspective

Qualitative Methods

Triangulation



- Participant observation
- In depth interviews ★
- Focus groups ★
- Discourse/conversation analysis
- Documentary analysis

Verbatim transcripts, codes, themes, interpretation

The researcher IS the instrument

- Important to be aware of own influence on data collection and analysis
- **Reflexivity** “challenges the status quo through a continuous process of questioning, examining, accepting and articulating our attitudes, assumptions, perspectives and roles” Barrett et al 2020 https://onlinelibrary.wiley.com/doi/epdf/10.1111/tct.13133?saml_referrer
- Different interviewing styles elicit different responses https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4539962/

Family Practice
© Oxford University Press 2000

Vol. 17, No. 1
Printed in Great Britain

The ‘doctor’ or the ‘girl from the University’? Considering the influence of professional roles on qualitative interviewing

Helen Richards and Carol Emslie

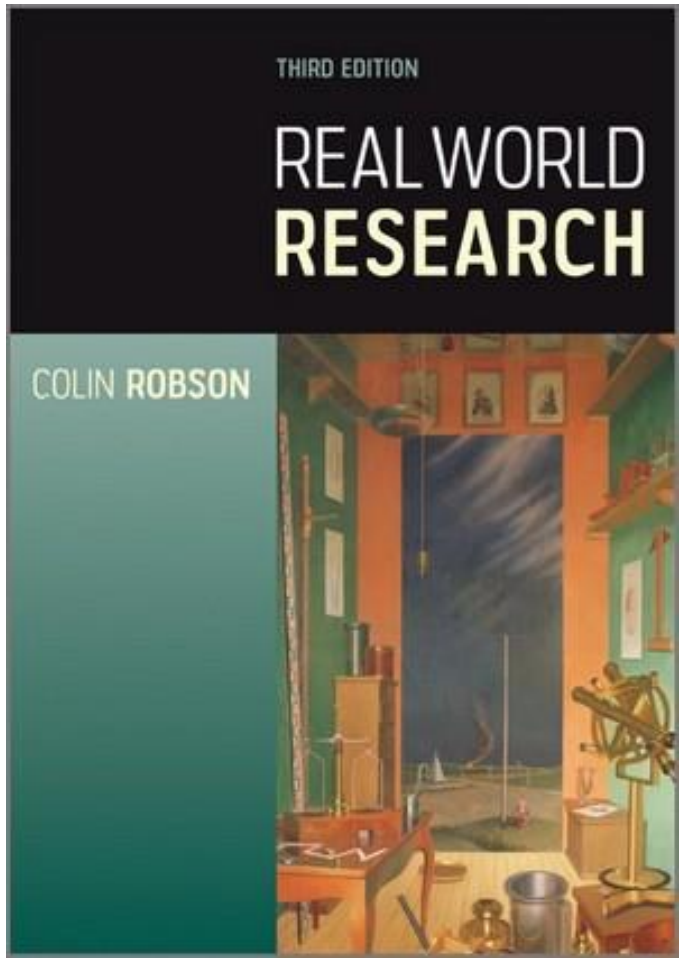
Richards H and Emslie C. The ‘doctor’ or the ‘girl from the University’? Considering the influence of professional roles on qualitative interviewing. *Family Practice* 2000; **17:** 71–75.

The qualitative interview

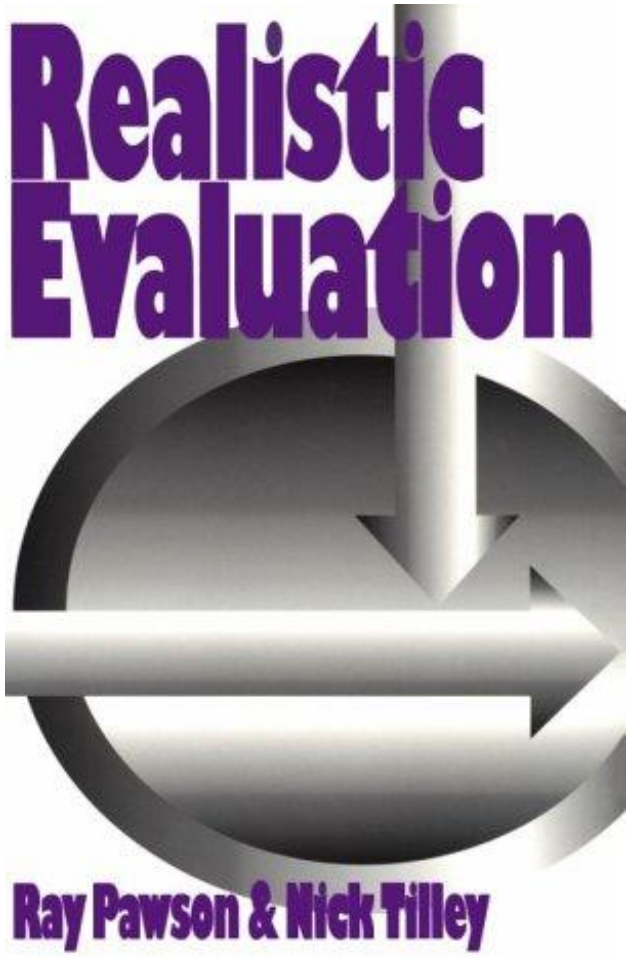
- Listen to how the researcher is interviewing this man
- What techniques is she using?
- How successful do you think they are?
- What is your sense of this interview?
- What did you think was done well?
- And not so well?

https://healthtalk.org/living-and-beyond-cancer/sense-of-identity-or-self-image

Qualitative research aims to reflect the real world



What works, why does it work, for whom and in what circumstances?



Qualitative vs quantitative research

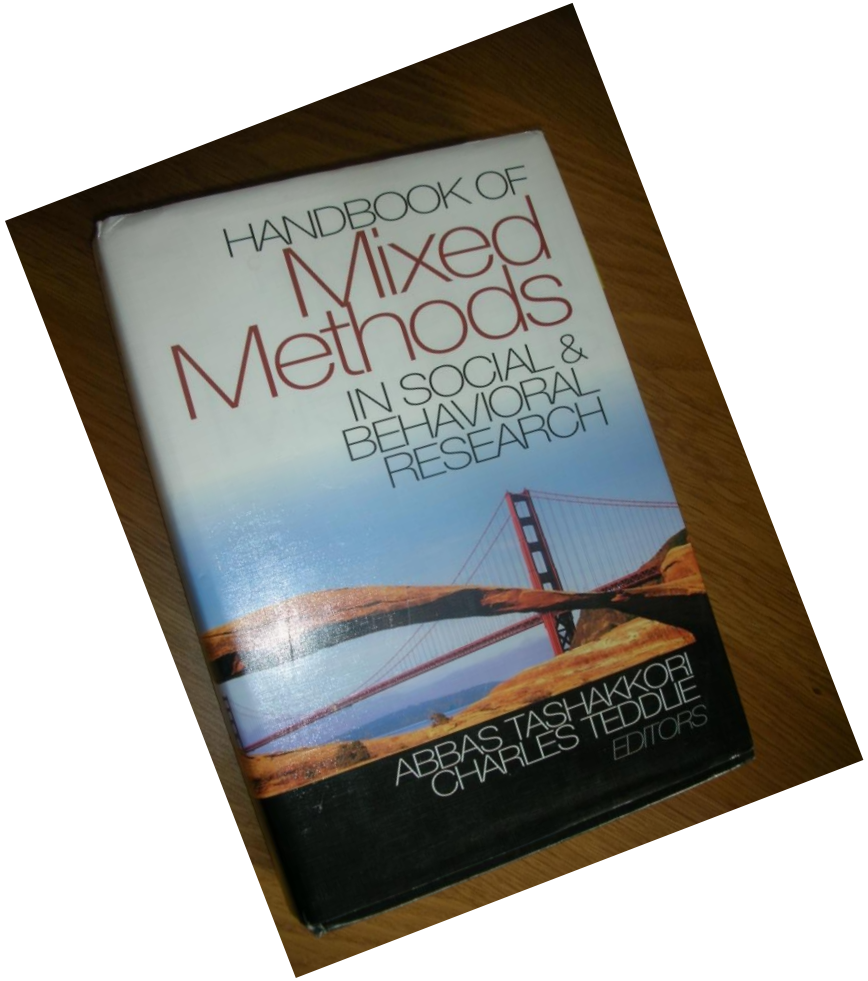
Qualitative Research

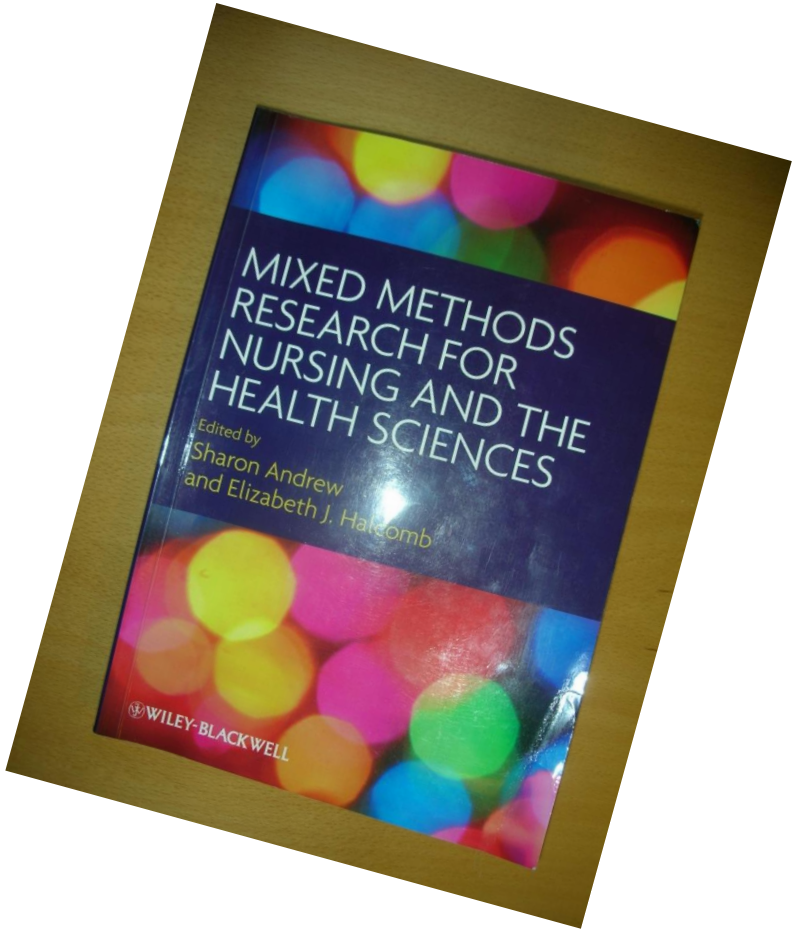
- Subjective
- Naturalistic
- Holistic
- Descriptive
- Conceptual
- Inductive
- Post positivist

Quantitative Research

- Objective
- Reductionist
- Experimental
- Scientific
- Deductive
- Controlled
- Positivist

Not necessarily an either/or…





Sampling in qualitative research is different

Characteristics of qualitative sampling

	Sample aims	Sample requirements	Sample type
Qualitative	In-depth exploration Data in context	Map diversity, include key groups and dimensions Smaller sample size	Purposive: Deliberate selection on basis of known characteristics
Quantitative	Measure extent Statistical correlations	Statistical representation exact mirror of population Large sample size, robustness of estimates	Random probability

Sampling in qualitative research

- 4 sampling techniques:
  - purposive
  - theoretical
  - convenience
  - snowballing

Purposive or criterion-based sampling

- Sample is selected with a purpose to represent a type in relation to key criterion that is suspected to be relevant.

  e.g. socio-demographics, experiences, behaviours, roles

- Two aims:
  - key criteria are represented
  - diversity within each criteria

- Different approaches: homogenous, heterogeneous, extreme case, key informants

Theoretical sampling

- Sample based on their potential contribution to development and testing of theoretical constructs

- Associated with development of grounded theory
  - initial sample selected
  - data analysed
  - further sample selected to refine emerging categories and theories

- Useful in exploratory research where little is known about particular phenomena

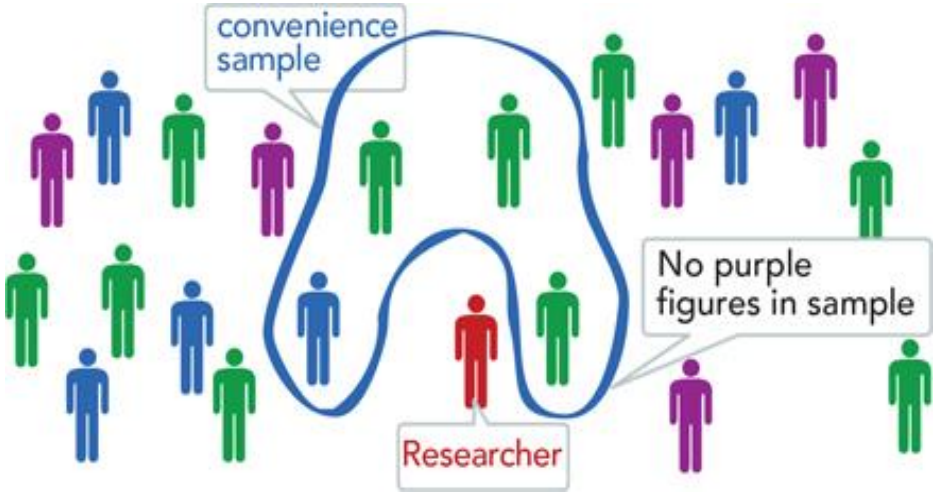
Snowballing and convenience sampling

Snowballing:

- Series of introductions to a new sample from research participants
- Useful for hard to reach groups

Convenience:

- Chooses sample according to ease of access
- Lacks clear sampling strategy



Wolf et al. BMC Health Servi
http://www.biomedcentral.c

RESEARCH A

Everyday 16-month

Axel Wolf[1,3*], Inger Ekr

Abstract

Background: Modern be driven primarily by practices of profession design of the care env

Methods: Ethnograph researchers working in took place with registe interviews were condu three assistant nurses

Results: We identified patients and healthcar and modest capacity f This resulted in feeling

Conclusions: The care This may result in increased moral stress among those between biomedical and person-centred care.

Citation: Notenbomer A, Roelen CAM, van Rhenen W, Groothoff JW (2016) Focus Group Study Exploring Factors Related to Frequent Sickness Absence. PLoS ONE 11(2): e0148647. doi:10.1371/journal.pone.0148647

Editor: Marianna Mazza, Catholic University of Sacred Heart of Rome, ITALY

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RESEARCH ARTICL

Focus Gr
to Freque

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W. Groothoff[2]

1 ArboNed Occupati
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Management Effectiv

Introduction

Research investig
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Methods

We performed a qu
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Results

Many participants
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absence.

British Journal of Health Psychology (2011), 16, 592–609

Psychological Society
www.wileyonlinelibrary.com

Adherence to medication in stroke survivors: A qualitative comparison of low and high adherers

Julie A. Chambers[1], Ronan E. O'Carroll[1]*, Barbara Hamilton[1], Jennifer Whittaker[1], Marie Johnston[2], Cathie Sudlow[3] and Martin Dennis[3]

Objectives. The aim of this study was to investigate factors that may explain variance in adherence to medication in stroke patients.

Design. A qualitative comparison of high and low adherers to medication.

Methods. Thirteen participants, selected from a sample of 180 stroke survivors because they self-reported the lowest adherence to medication regimes, were matched with 13 reporting maximal adherence. All took part in semi-structured qualitative interviews.

Results. Thematic analysis revealed that those with poor adherence to medication reported both intentional and non-intentional non-adherence. Two main themes emerged: the importance of stability of a medication routine and beliefs about medication and treatment. High adherers reported remembering to take their medication and seeking support from both family and health professionals. They also had a realistic understanding of the consequences of non-adherence, and believed their medicine did them more good than harm. Low adherers reported forgetting their medication, sometimes intentionally not taking their medication and receiving poor support from medical staff. They disliked taking their medication, had limited knowledge about the medication rationale or intentions, and often disputed its benefits.

Qualitative research contributes evidence at various levels

Synthesis of the qualitative evidence

Psycho-Oncology
Psycho-Oncology (2012)
Published online in Wiley Online Library (wileyonlinelibrary.com). **DOI**: 10.1002/pon.3148

Review

Supporting 'work-related goals' rather than 'return to work' after cancer? A systematic review and meta-synthesis of 25 qualitative studies

Mary Wells[1]*, Brian Williams[2], Danielle Fimigl[3], Heidi Lang[1], Joanne Coyle[3], Thilo Kroll[3] and Steve MacGillivray[3]
[1]*School of Nursing and Midwifery, University of Dundee, Dundee, Scotland, DD6 8BA, UK*
[2]*Nursing, Midwifery and Allied Health Professions Research Unit, University of Stirling, Stirling, FK9, UK*
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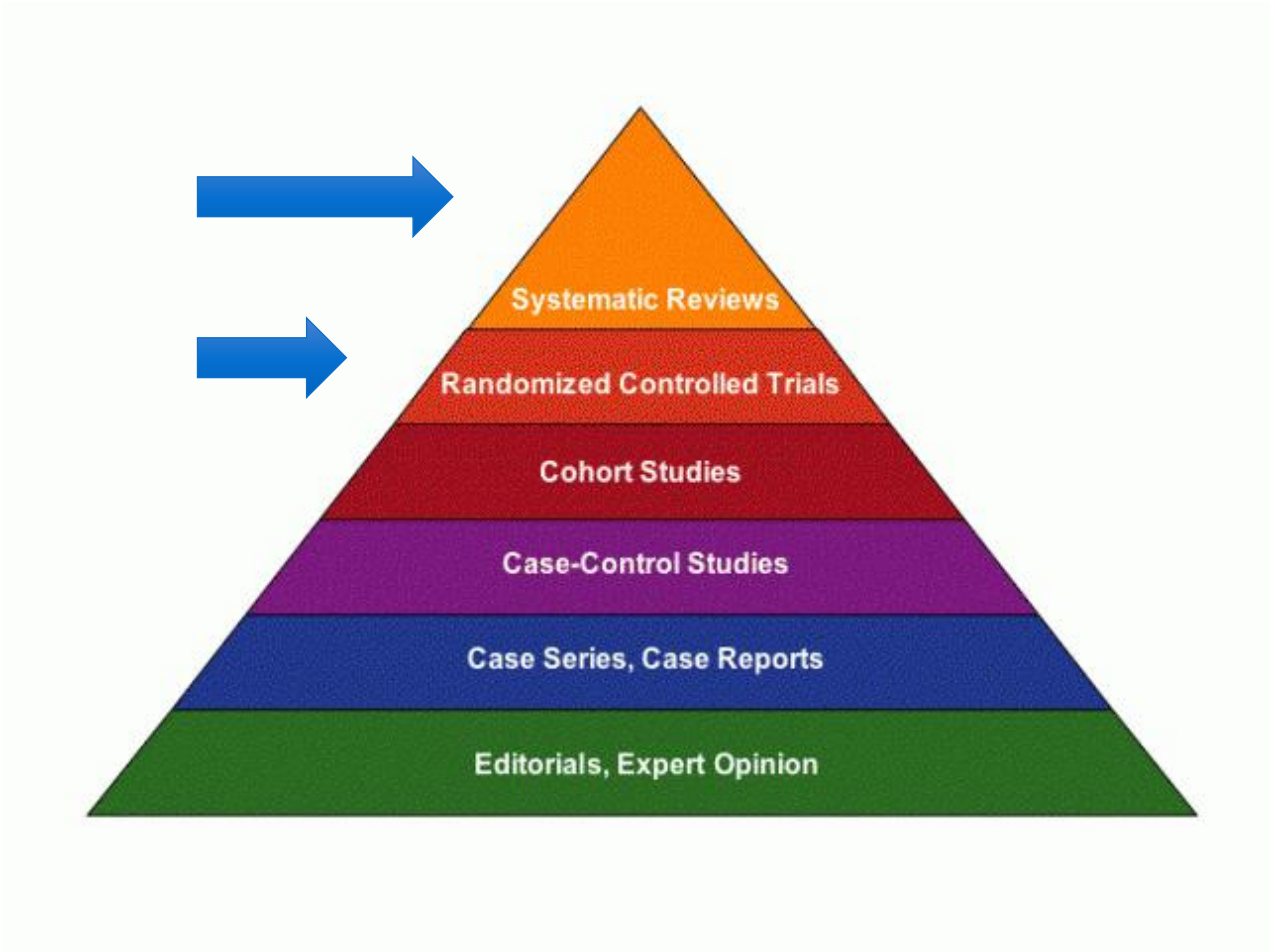
School of Nursing and Midwifery, University of Dundee, 11 Airlie Place, Dundee, Scotland, DD6 8BA, UK. E-mail: e.m.wells@dundee.ac.uk

Abstract

***Background*: This study aimed to systematically review and synthesise qualitative studies of employment and cancer.**

***Methods*: A rigorous systematic review and meta-synthesis process was followed. A total of 13 233 papers were retrieved from eight databases; 69 were deemed relevant following title and abstract appraisal. Four further publications were identified via contact with key authors. Screening of full texts resulted in the retention of 25 publications from six countries, which were included in the synthesis.**

Qualitative research also contributes here



O'Cathain et al. Pilot and Feasibility Studies (2015) 1:32
DOI 10.1186/s40814-015-0026-y

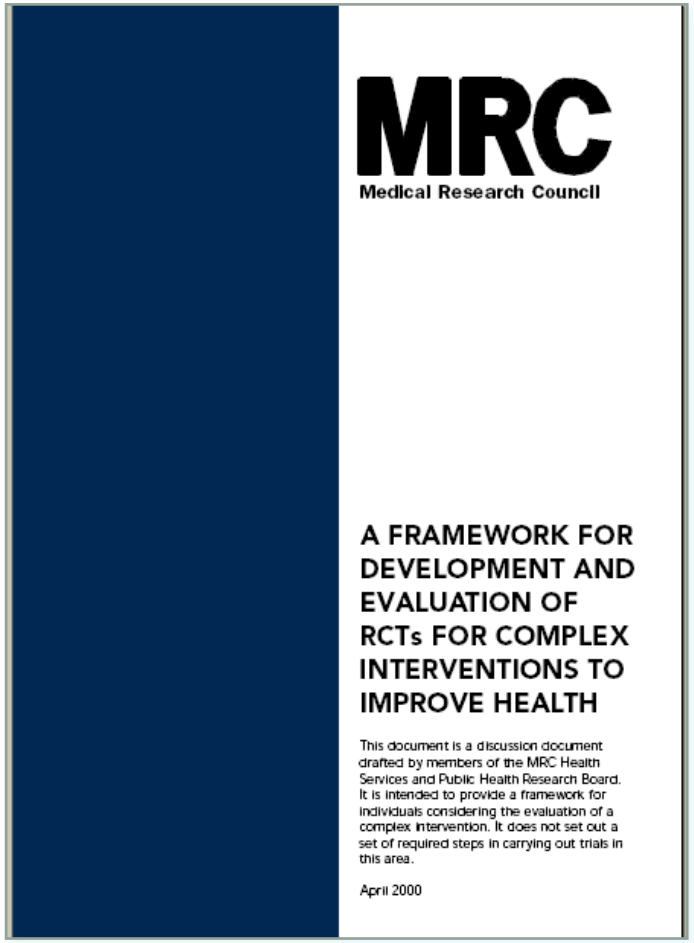
PILOT AND FEASIBILITY STUDIES

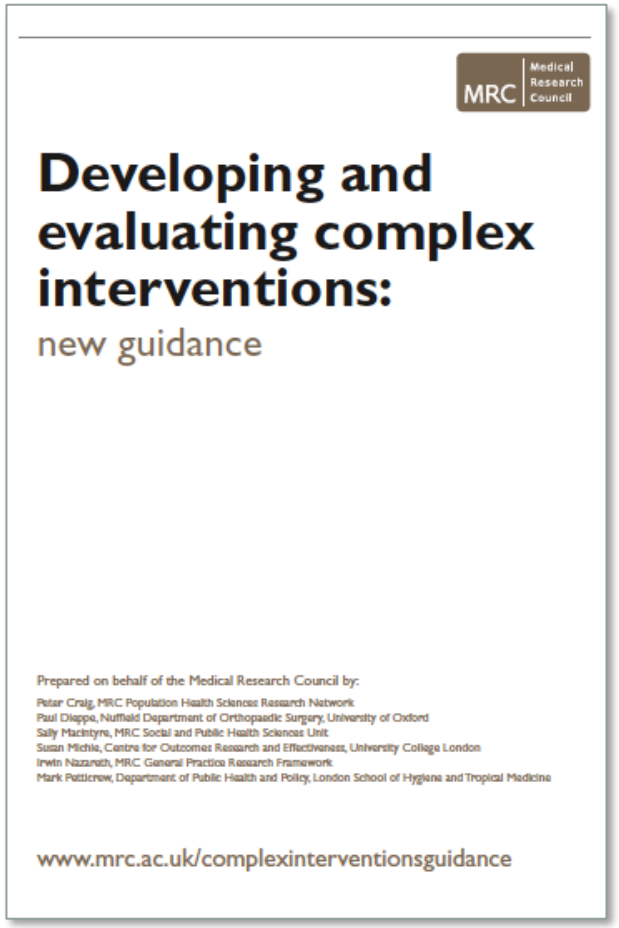
REVIEW Open Access

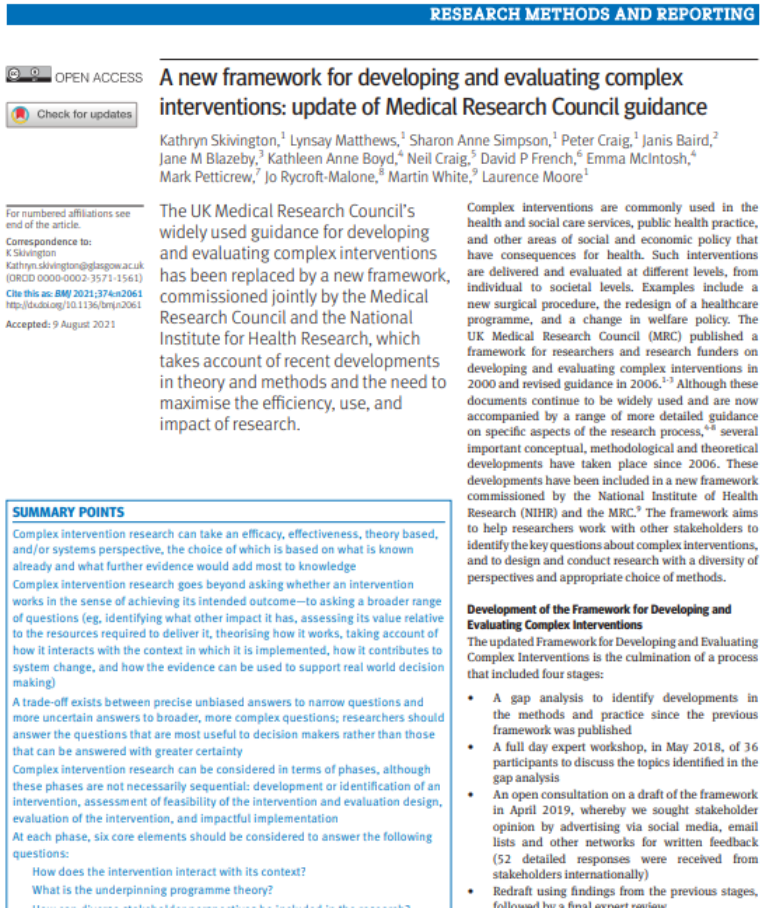
Maximising the impact of qualitative research in feasibility studies for randomised controlled trials: guidance for researchers

Alicia O'Cathain[1*], Pat Hoddinott[2], Simon Lewin[3,4], Kate J. Thomas[1], Bridget Young[5], Joy Adamson[6], Yvonne JFM. Jansen[7], Nicola Mills[8], Graham Moore[9] and Jenny L. Donovan[8]

Development and evaluation of complex interventions







“A potential dissonance between efficacy and effectiveness that can be explained by qualitative research”

Cochrane Qualitative Research Methods Group

http://cqrmg.cochrane.org/supplemental-handbook-guidance

Figure 1: Causal pathway for mammography screening

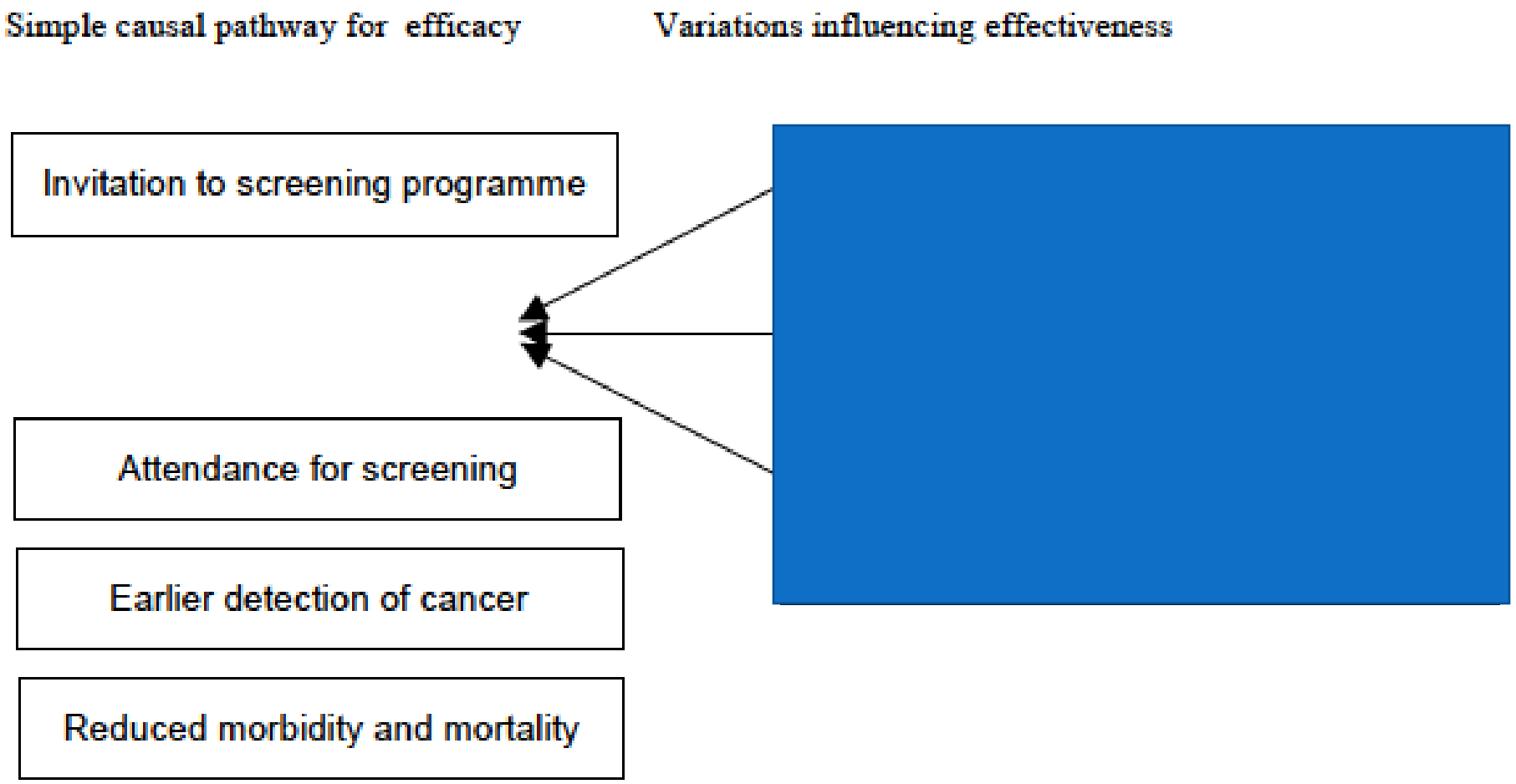
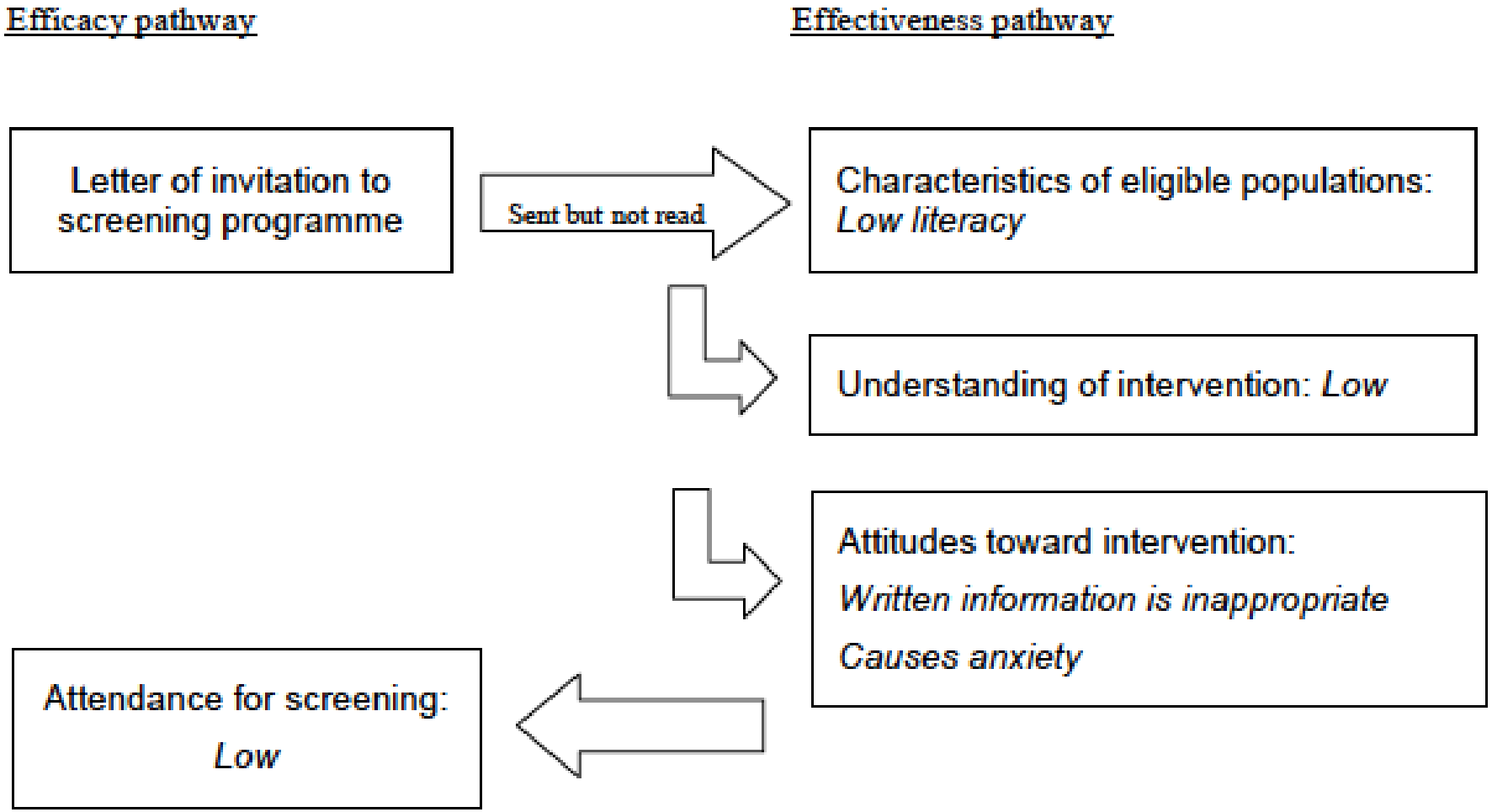


Figure 2: Causal pathway informed by qualitative research



Summary - Qualitative research

Is very important for improving understanding on how, and whether, people perceive health interventions to be effective and acceptable – or more fundamentally, whether they work. Qualitative evidence is also essential to understanding the factors influencing the implementation of health policies and interventions

World Health Organisation Guideline Development Handbook 2014