

Introduction to Qualitative Research Design & Methods

Mary Wells

AHSC Starting out in research course

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 controlled trials.
- Ib* At least one randomised controlled trial.
- IIa* At least one well-designed cohort or case-control study without randomisation.
- IIb* At least one other well-designed non-experimental study.
- III* Well-designed descriptive studies, such as comparative studies, cross-sectional studies and case studies.
- IV* Expert committee reports or opinions and/or clinical experiences of respected clinicians.

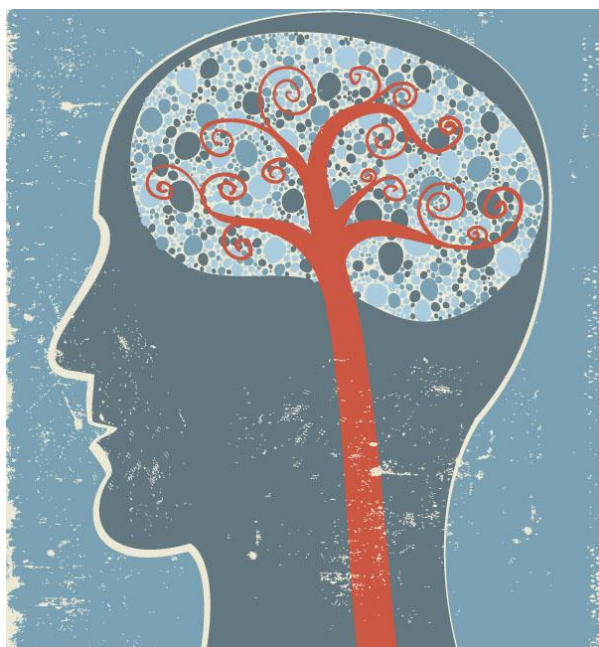
What kind of evidence do you need?

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)

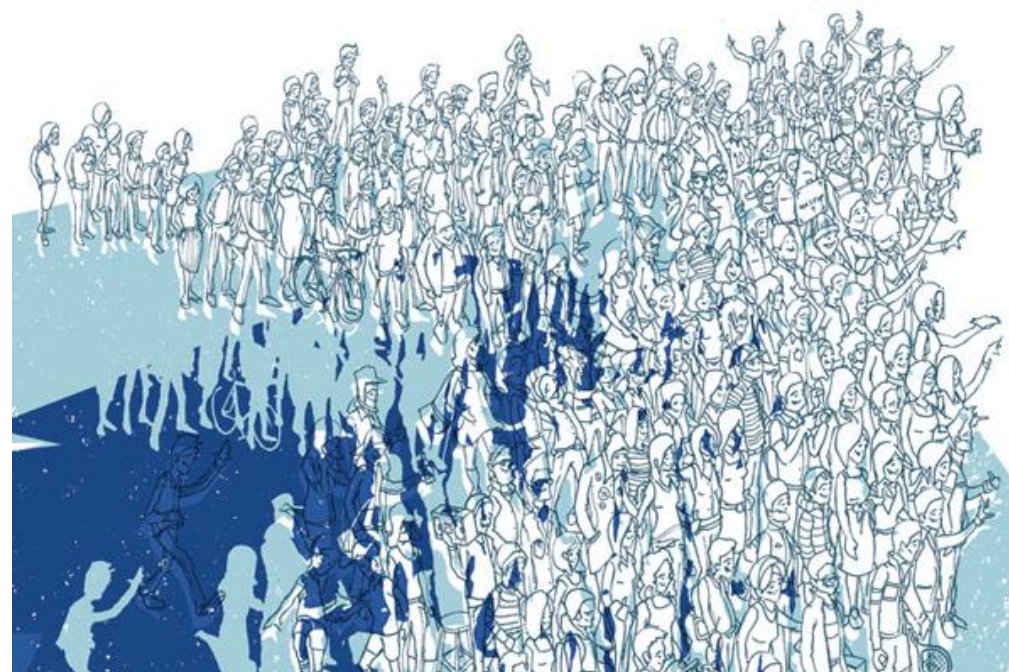
Methodologies cannot be true or false, only more or less appropriate (Atkin & Chatoo 2006)

What types of questions can
qualitative research answer best?

Why?



In what
way?



How?



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

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.

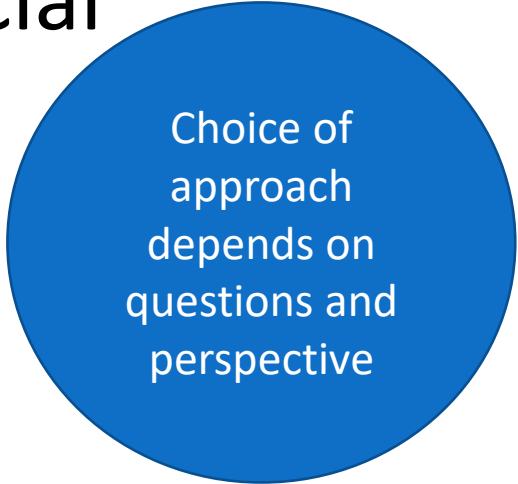
Patient and Public Involvement (PPI)

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

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



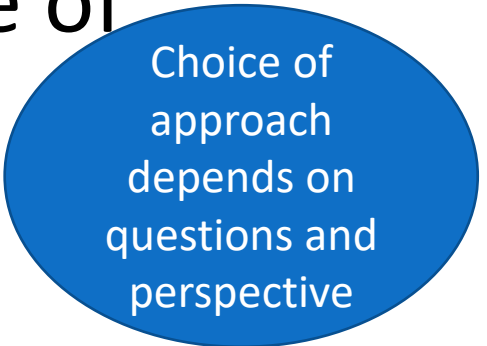
Choice of approach depends on questions and perspective

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



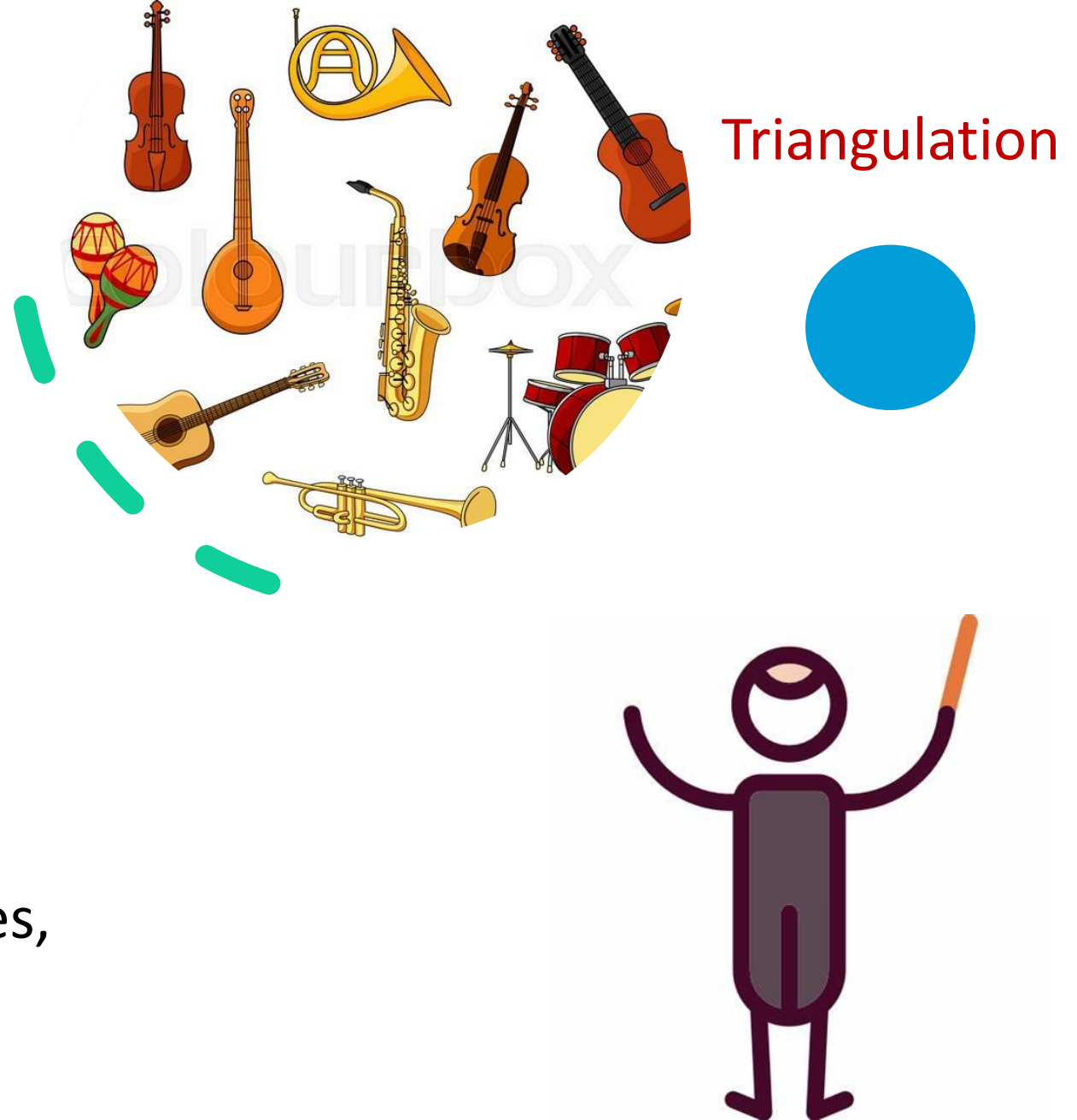
Choice of approach depends on questions and perspective

Qualitative Methods

- 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

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

Helen Richards and Carol Emslie

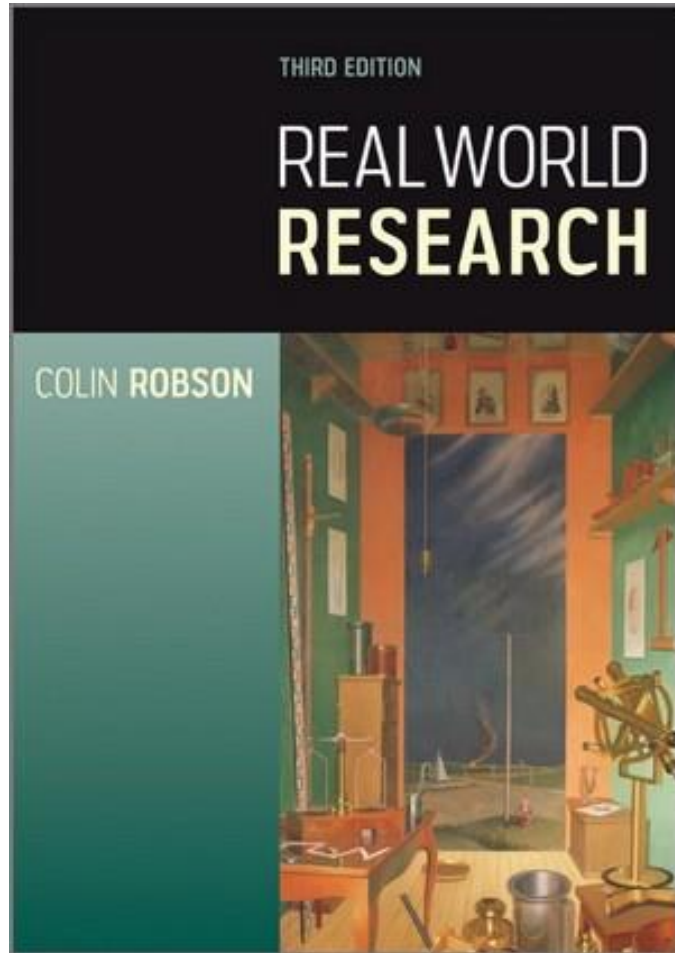
Richards H and Emslie C. The ‘doctor’ or the ‘girl from the University’? Considering the influence of professional roles on qualitative interviewing. *Family Practice* 2000; **17**: 71–75.

The qualitative interview

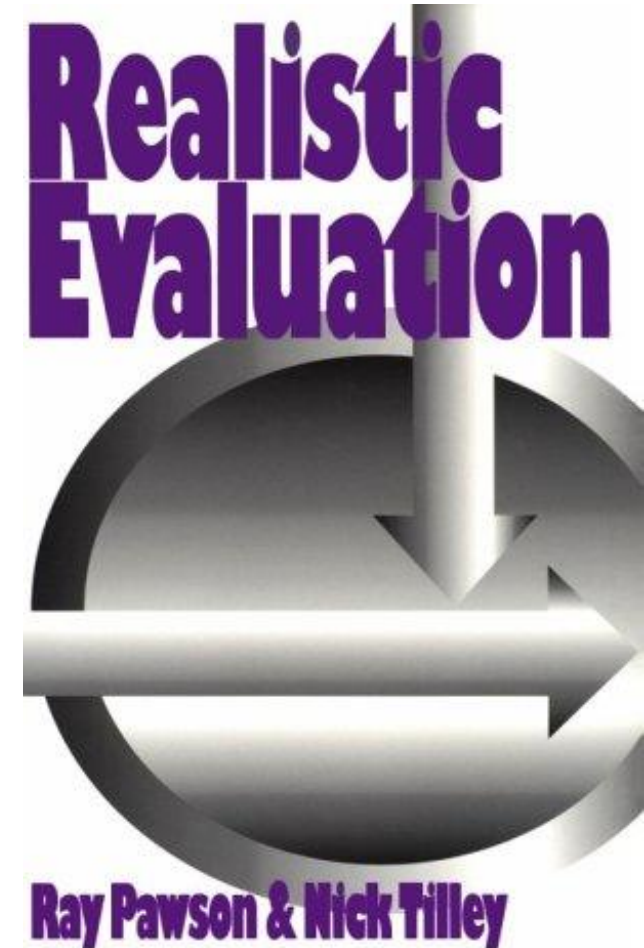
- Listen to how the researcher is interviewing this man
- What techniques is she using?
- How successful do you think they are?
- What is your sense of this interview?
- What did you think was done well?
- And not so well?

<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

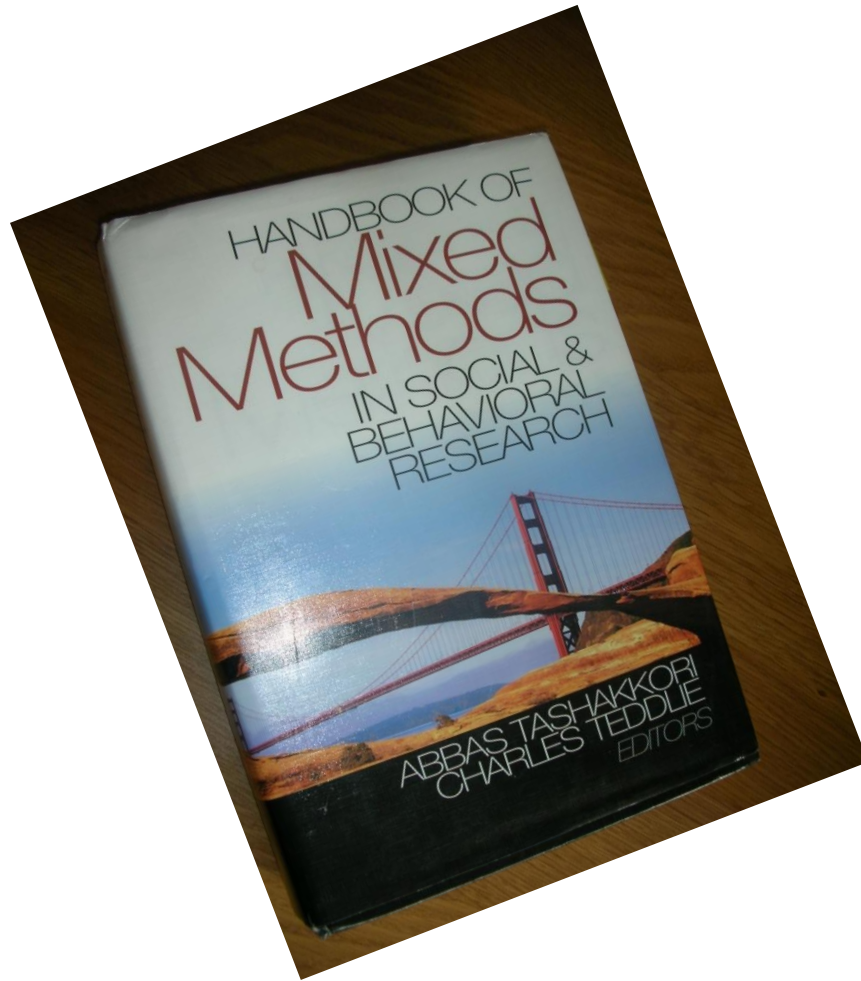
Qualitative Research

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

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

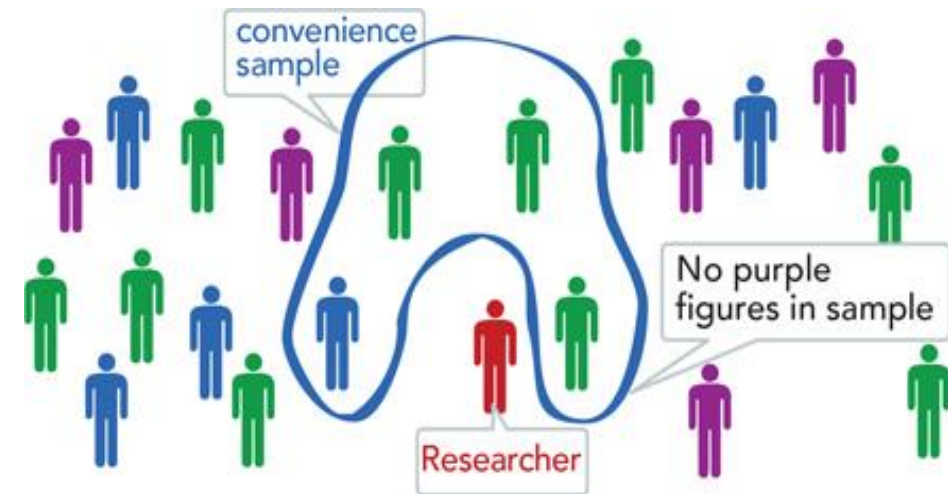
Snowballing:

- 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



RESEARCH ARTICLE

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 i

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

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



OPEN ACCESS

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

Received: August 5, 2015

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RESEARCH ARTICLE

Focus Group to Freque

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Management Effectiv

Introduction

Research investig
qualitative resear
of the current stud
absence from the

Methods

We performed a qu
absentees. Focus g
analyzed with the C
theoretical framew

Results

Many participants v
term sickness abse
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improving commun
absence.

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

Julie A. Chambers¹, Ronan E. O'Carroll^{1*}, Barbara Hamilton¹,
Jennifer Whittaker¹, Marie Johnston², Cathie Sudlow³
and Martin Dennis³

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 Williams², Danielle Fimigl³, Heidi Lang¹, Joanne Coyle³, Thilo Kroll³ and Steve MacGillivray³

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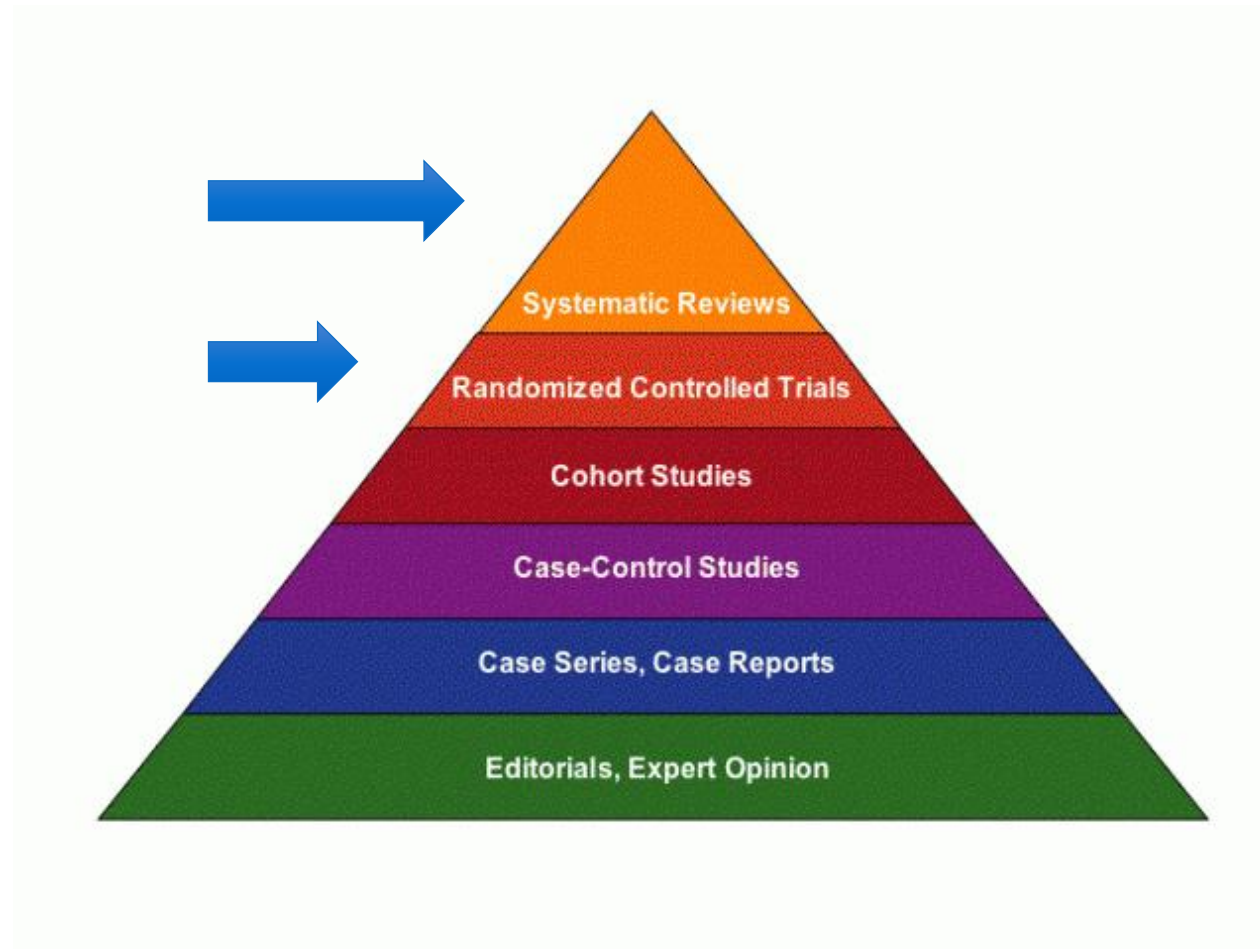
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Abstract

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

**REVIEW****Open Access**

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

Alicia O'Cathain^{1*}, Pat Hoddinott², Simon Lewin^{3,4}, Kate J. Thomas¹, Bridget Young⁵, Joy Adamson⁶, Yvonne JFM. Jansen⁷, Nicola Mills⁸, Graham Moore⁹ and Jenny L. Donovan⁸

Development and evaluation of complex interventions

MRC
Medical Research Council

A FRAMEWORK FOR DEVELOPMENT AND EVALUATION OF RCTs FOR COMPLEX INTERVENTIONS TO IMPROVE HEALTH

This document is a discussion document drafted by members of the MRC Health Services and Public Health Research Board. It is intended to provide a framework for individuals considering the evaluation of a complex intervention. It does not set out a set of required steps in carrying out trials in this area.

April 2000

Developing and evaluating complex interventions:
new guidance

Prepared on behalf of the Medical Research Council by:

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www.mrc.ac.uk/complexinterventionsguidance

RESEARCH METHODS AND REPORTING

OPEN ACCESS

Check for updates

A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance

Kathryn Skivington,¹ Lynsay Matthews,¹ Sharon Anne Simpson,¹ Peter Craig,¹ Janis Baird,² Jane M Blazeby,³ Kathleen Anne Boyd,⁴ Neil Craig,⁵ David P French,⁶ Emma McIntosh,⁴ Mark Petticrew,⁷ Jo Rycroft-Malone,⁸ Martin White,² Laurence Moore¹

The UK Medical Research Council's widely used guidance for developing and evaluating complex interventions has been replaced by a new framework, commissioned jointly by the Medical Research Council and the National Institute for Health Research, which takes account of recent developments in theory and methods and the need to maximise the efficiency, use, and impact of research.

Complex interventions are commonly used in the health and social care services, public health practice, and other areas of social and economic policy that have consequences for health. Such interventions are delivered and evaluated at different levels, from individual to societal levels. Examples include a new surgical procedure, the redesign of a healthcare programme, and a change in welfare policy. The UK Medical Research Council (MRC) published a framework for researchers and research funders on developing and evaluating complex interventions in 2000 and revised guidance in 2006.^{1,2} Although these documents continue to be widely used and are now accompanied by a range of more detailed guidance on specific aspects of the research process,^{3,4} several important conceptual, methodological and theoretical developments have taken place since 2006. These developments have been included in a new framework commissioned by the National Institute of Health Research (NIHR) and the MRC.⁵ The framework aims to help researchers work with other stakeholders to identify the key questions about complex interventions, and to design and conduct research with a diversity of perspectives and appropriate choice of methods.

Development of the Framework for Developing and Evaluating Complex Interventions

The updated Framework for Developing and Evaluating Complex Interventions is the culmination of a process that included four stages:

- A gap analysis to identify developments in the methods and practice since the previous framework was published
- A full day expert workshop, in May 2018, of 36 participants to discuss the topics identified in the gap analysis
- An open consultation on a draft of the framework in April 2019, whereby we sought stakeholder opinion by advertising via social media, email lists and other networks for written feedback (52 detailed responses were received from stakeholders internationally)
- Redraft using findings from the previous stages, followed by a final expert review

SUMMARY POINTS

Complex intervention research can take an efficacy, effectiveness, theory based, and/or systems perspective, the choice of which is based on what is known already and what further evidence would add most to knowledge

Complex intervention research goes beyond asking whether an intervention works in the sense of achieving its intended outcome—to asking a broader range of questions (eg, identifying what other impact it has, assessing its value relative to the resources required to deliver it, theorising how it works, taking account of how it interacts with the context in which it is implemented, how it contributes to system change, and how the evidence can be used to support real world decision making)

A trade-off exists between precise unbiased answers to narrow questions and more uncertain answers to broader, more complex questions; researchers should answer the questions that are most useful to decision makers rather than those that can be answered with greater certainty

Complex intervention research can be considered in terms of phases, although these phases are not necessarily sequential: development or identification of an intervention, assessment of feasibility of the intervention and evaluation design, evaluation of the intervention, and impactful implementation

At each phase, six core elements should be considered to answer the following questions:

How does the intervention interact with its context?
What is the underpinning programme theory?

“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

Simple causal pathway for efficacy

Variations influencing effectiveness

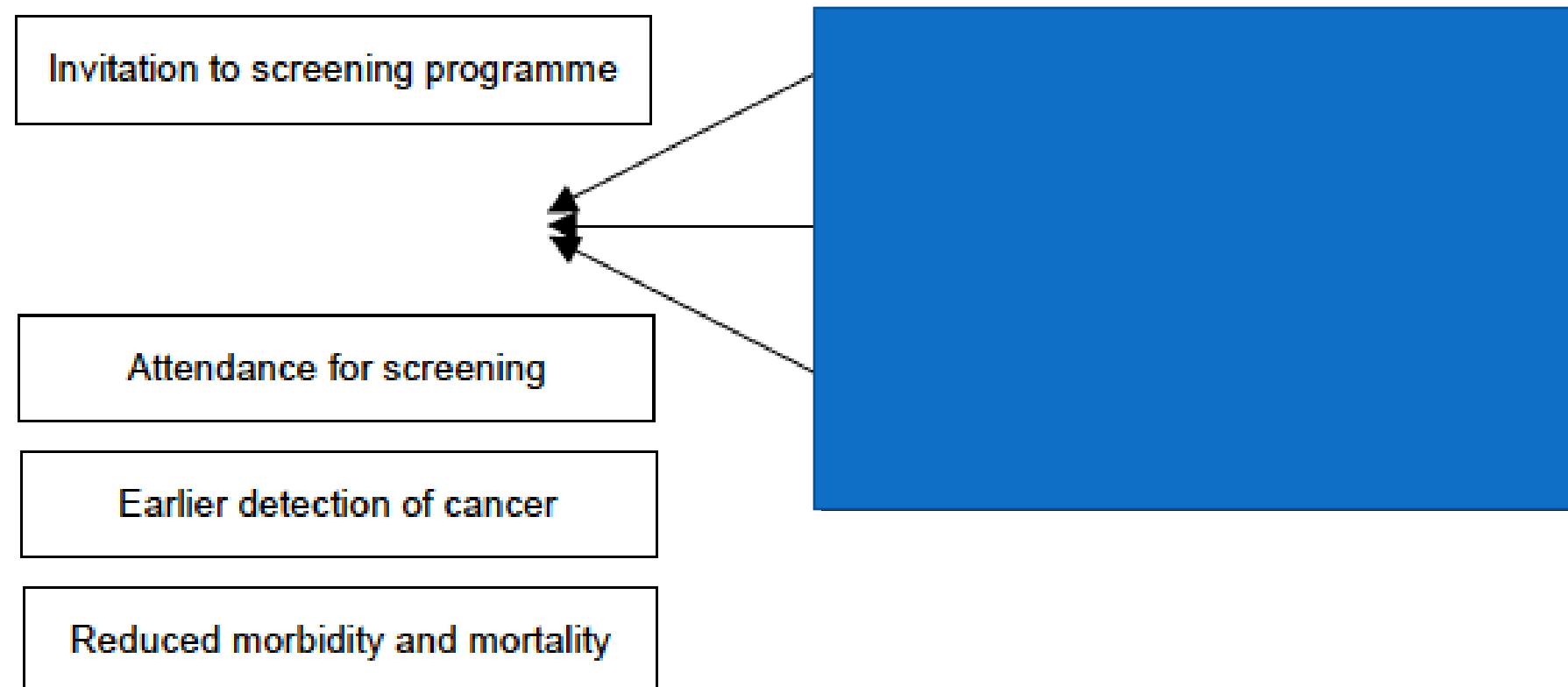
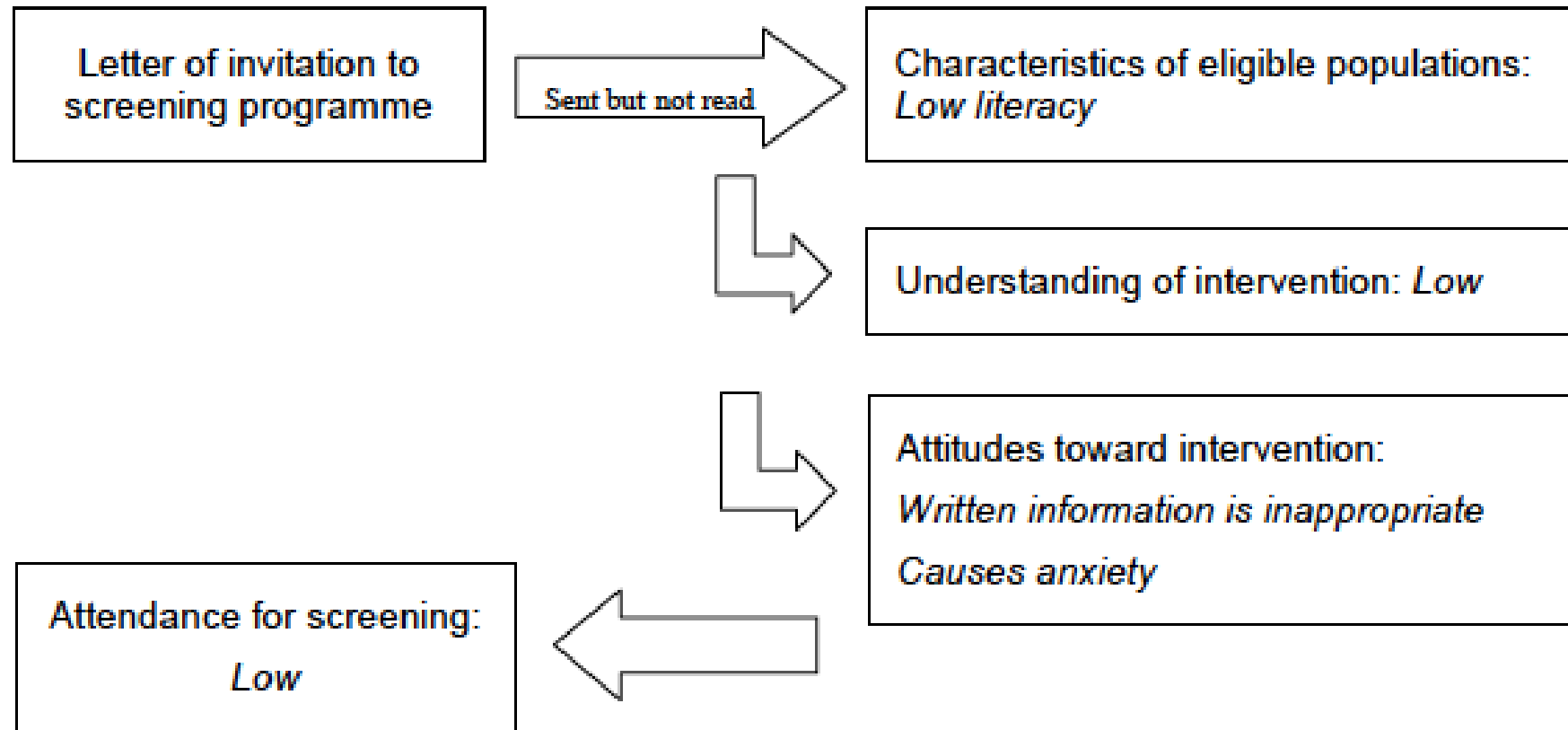


Figure 2: Causal pathway informed by qualitative research

Efficacy pathway

Effectiveness pathway



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*

It refreshes and gets into
the parts that other
research methods cannot
reach...

