

# When and how to use Mixed Methods

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on behalf of the European Association for Palliative Care



# Some things are better mixed

Cake



Music

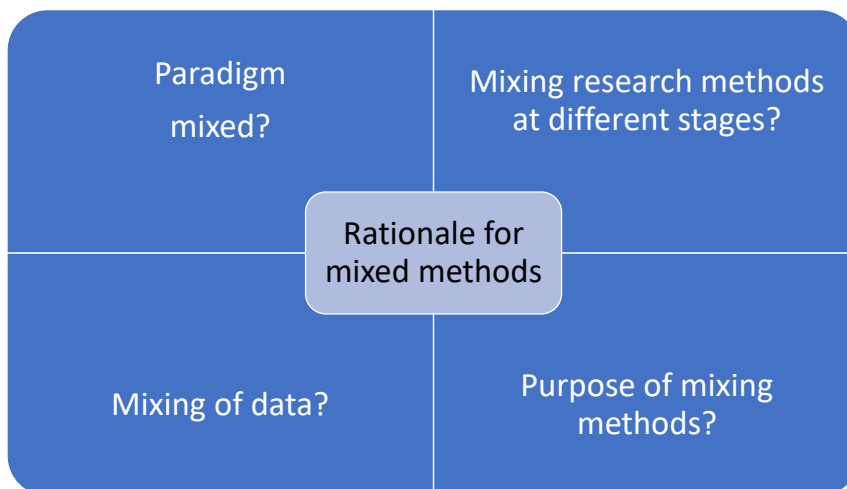
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## Learning objectives

1. To define the term 'mixed methods' research
2. To introduce the rationale and purpose of case study methods
3. To describe indications for when this might be a suitable research design
4. To explain the different types of case study design
5. To discuss two examples of research using organisational case study methodology in palliative care
6. To highlight the strengths and weaknesses of this methodology

## What is 'mixed' in 'mixed methods'?



## Definition of mixed methods

Mixed methods research is a type of research in which a researcher or team, combines elements of qualitative and quantitative research approaches (eg. Qualitative and quantitative viewpoints, data collection, analysis, inferences techniques) for the broad purposes of breadth and depth of understanding.

- In a single study
- For a single research question

(Walshe C. The case for mixed methods in applied research Chapter 16 In Walshe C and Brearley S. (eds) Handbook of Theory and Methods in Applied Health Research. Elgar: Cheltenham. 2020)

## Features of mixed methods (Creswell et al 2011)

- Focusing on research questions that take account of context, multi-level perspectives, cultural influences
- Use rigorous quantitative (eg. frequency counts) and rigorous qualitative (eg. explore meanings) methods
- Use multiple methods
- Intentionally integrate these methods (drawing on their strengths)
- Frame the study within philosophical and theoretical positions.

## Core mixed methods research designs

Design	Features
Convergent design - Or concurrent or parallel design	To bring together results of quantitative and qualitative data analysis. Comparison may bring more complete understanding, validate one set of findings with another, etc
Explanatory sequential design	Occurs in two distinctive interactive phases. Starts with collection and analysis of quantitative data, followed by collection and analysis of qualitative data to explain or expand on first phase results
Exploratory sequential design	Occurs in two phases, but begins with and typically prioritizes the qualitative data in first phase. Quantitative feature is built on the exploratory results from the qualitative phase, and typically incorporates a development phase

## Example of mixed methods – case study

Definition: 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (Yin 2003, p. 13).

### Features include:

- multiple and complex data sources;
- triangulation;
- a theoretical framework to guide data collection and analysis

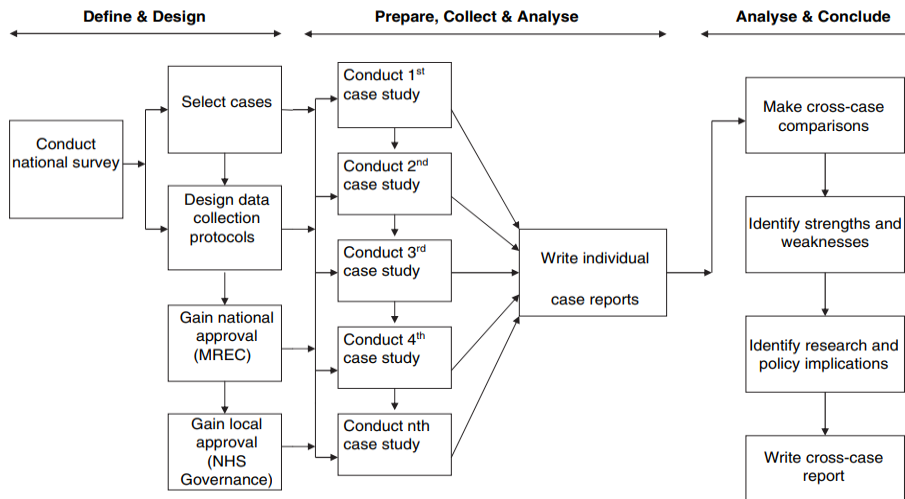


Figure 1 The case study process (adapted from Yin 2003).

## When to use a case study design

- focus on *process* and *outcome*;
- evaluation conduct that is collaborative, participatory, ethically sensitive and constructive;
- evaluators who reflect upon, and use their own expert knowledge effectively and critically;
- an emphasis on utility and effective dissemination.

## Two examples of case study design studies

### Investigation of the role of community hospitals in the provision of palliative care for older people

- To identify the extent to which community hospitals are involved in providing palliative and terminal care to older people with end stage cancer and non-malignant diseases.
- To examine the nature and quality of palliative care delivered from the perspective of patients, their relatives and staff.

## Overall study design

- *Phase 1* A national survey of all 478 Community Hospitals
- *Phase 2* Interviews with hospital managers/senior nurses in 30 Community Hospitals in the South East and South West
- *Phase 3* In-depth **organisational case studies** of six community hospitals using observation, questionnaires and interviews in the South East and South West England.

## Rationale for using case study design in the third phase

- In-depth account of service provision from multiple perspectives
- Use of multiple sources of data
- Use of multiple types of data
- Impossible to control any variables
- Complex situation
- Interested in context in which community hospitals were situated.

### Phase 3: Organisational case studies

<i>Size (Beds)</i>	Small <30 3	Medium 30-49 2	Large >50 1
<i>Location</i>	Rural 4	Coastal 1	Urban 1
<i>Organisation Of care</i>	GP led 4	Consultant Led 1	Shared care 1

### Participants and data sources

- **Older patients** in community hospitals (n=18)  
10 women, 8 men, age range 68-90, 10 had cancer – semi-structured interviews
- Current **carers** (n=11) interviews (9 women)
- **Bereaved carers** (n=51) interviews (40 women)
- Staff (n=125) questionnaires from  
**doctors** (31), **nurses** (44), **care assistants** (22), **other professionals** (28).
- Non-participant **observations** approx. 900 hours



## Evaluation of adult bereavement services provided by hospices

- To describe the purpose, organisation and delivery of bereavement support services.
- To examine the role of professionals and volunteers in providing these services.
- To assess the views and outcomes of bereaved people who have used and not used these services.



## Research Design

- Phase 1: National postal survey of adult bereavement services provided by hospices and specialist palliative care services
- Phase 2: **Organisational case-studies** at five selected services

## Rationale for using case study design in the second phase

- In-depth account of service provision from multiple perspectives
- Use of multiple sources of data
- Use of multiple types of data
- Impossible to control any variables
- Complex situation
- Interested in context in which bereavement services were situated, others sources of support
- To make comparisons between different types of bereavement services (eg. volunteer versus professional only services)
- To understand the views of bereaved people who declined services.

## Research methods

Method	Paid Staff	Volunteers	Non-Hospice Staff	Bereaved people
Qualitative interviews	Yes	Yes	Yes	Yes
Focus groups	Community nurses	Yes	Community nurses	Yes
Structured questionnaires				Grief Experience Inventory; SF36
Observation of meetings and events	Yes	Yes	No	No
Documentary evidence	Records, 'referral' forms	Referral information	Information sheets	Letters of invitation, information sheets, bereavement booklets

## Summary characteristics of the five bereavement services

Site	Duration of Service	Size of Service	Bereavement Volunteers	Activity level	Locality
1	Old	Large	Yes	High	South West
2	Old	Small	Yes	High	West
3	Young	Small	Yes	Low	North Midlands
4	Young	Large	Yes	High	South Midlands
5	Young	Small	No	High	South East

## Mix Methods – Strengths

- Responsive to dynamic situations
- Takes account of multiple perspectives
- Indicates how process issues have influenced outcomes
- Empowering for participants and organisations

## Mix Methods – Weaknesses

- Complex and 'messy' data
- Difficult to produce a single outcome
- Raises epistemological challenges about the nature of 'truth' and measurement issues
- Dilemmas in the privileging of different types of data (quantitative versus qualitative)

**Thank you for your attention**



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## Further reading

- Walshe C. The case for mixed methods in applied research. Chapter 16 In Walshe C and Brearley S. (eds) *Handbook of Theory and Methods in Applied Health Research*. Elgar: Cheltenham. 2020
- Yin, R.K. (ed.) (2014). *Case Study Research: design and methods* (5th edition) Thousand Oaks, CA: Sage.
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This project has been funded with support from the European Commission.

This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Research for all palliative care clinicians 2020-1-RO01-KA202-080128