WEEK 9

Medical Research

Case Study and Ethnography

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1. What is a Case?

- **A case is a single instance; a sample of one.**
- According to **Easton (2010)**, a case is a phenomenon that is **spatially delimited** and studied either:
    - At one point in time.
    - Over a bounded period of time.
- A case can be:
    - **Individual**
    - **Group**
    - **Project**
    - **Policy**
    - **Institution**
    - **Program**

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2. Definition of Case Study Research

- **Case study research** is a qualitative approach in which the researcher explores:
    - **One bounded system (single case)** or
    - **Multiple bounded systems (multiple cases)**
- The study is conducted **over time** through detailed and in-depth data collection.
- Multiple data sources are used, such as:
    - Observations
    - Interviews
    - Audio-visual materials
    - Documents
    - Reports
- The final outcome includes:
    - **Case description**
    - **Case-based themes**

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3. Conditions that Characterize Case Study Research

Case study research often involves:

1. **Making an in-depth inquiry.**
2. **Studying conditions over time.**

3. **Covering contextual conditions.**

These conditions usually result in **more variables than data points**.

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4. Characteristics of Case Study Research

- Widely used in:
  - Healthcare
  - Medicine
  - Anthropology
  - Psychology
- Effective for studying:
  - **Complex issues**
  - **Real-world situations**
- Usually considered a **qualitative method**, but:
  - It can also include **quantitative methods**.
  - Therefore, it may be viewed as a **mixed-methods approach**.
- The case often describes:
  - A sequence of events.
  - How a problem or activity actually occurred.

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5. Data Sources in Case Study Research

A major strength of case study research is the use of **multiple sources of evidence**.

Main data sources include:

- **Document analysis**
- **Archival records**
- **Interviews**
- **Surveys**
- **Participant observation**

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6. Triangulation (Very Important)

- **Triangulation is a must in case study research.**

- It means using multiple methods, sources, researchers, or theories to study the same phenomenon.
- Purpose:
    - Increase credibility.
    - Improve validity.
    - Reduce bias.

Example:
Studying nurses' communication by using:

- Interviews.
- Direct observation.
- Hospital reports.

If all produce similar findings → stronger evidence.

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7. Important Features of Case Study Research

- Researchers must maintain **empirical intimacy** (close engagement with the case).
- A case study **cannot be exactly replicated** because it is:
    - Spatially bounded.
    - Temporally bounded.
- Case studies may involve:
    - **Single case**
    - **Multiple cases**

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8. Single-Case vs Multiple-Case Studies

Single-Case Study

- Focuses on one case only.
- Useful for:
    - Describing an existing phenomenon in depth.

Example:
Studying one hospital's response to a pandemic.

Multiple-Case Study

- Studies several cases.
- Better for:
    - Building theory.
    - Comparing patterns across cases.
    - Increasing generalizability.

Example:
Comparing infection-control practices in 5 hospitals.

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9. Generalization in Case Study Research

Unlike quantitative research that aims for **statistical generalization**, case study research aims for:

Analytical (Theoretical) Generalization

- Findings are generalized to a **theory**, not directly to a population.
- If the same phenomenon appears across multiple cases, the theory becomes stronger.

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10. Types of Case Study Research (Yin, 2003)

A. Descriptive Case Study

Purpose:

- Describe a phenomenon within its real-life context.

Example:
Describing how a nursing team manages patient discharge procedures.

B. Exploratory Case Study (Pilot Study)

Purpose:

- Explore a phenomenon when little information exists.

- Define future research questions or hypotheses.
- Test research procedures before a larger study.

Example:
Exploring why some patients miss follow-up appointments before conducting a large survey.

C. Explanatory Case Study

Purpose:

- Explain **cause-and-effect relationships**.
- Explain **how** and **why** events occur.

Example:
Investigating why medication errors increased after introducing a new electronic system.

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11. Exploratory vs Explanatory Case Study

Exploratory Case Study

- Used when:
  - The phenomenon is complex.
  - Previous literature is limited.
  - Research direction is unclear.

Main question:

- "What is happening?"

Example:
Exploring experiences of newly graduated nurses in rural hospitals.

Explanatory Case Study

- Used when:
  - Existing literature already provides direction.

    - Research seeks explanations.

Main questions:

- “Why did it happen?”
- “How did it happen?”

Example:
Explaining why staff burnout leads to increased turnover rates

12. How to Perform a Case Study?

Step 1: Determine and Define the Research Questions

- The focus or intent of the study is established after:
    - Conducting an intensive literature review.
    - Clearly identifying the research problem.
- Formulating research questions helps the researcher determine:
    - **How would I answer those questions?**
    - **What information do I need?**
    - **How would I obtain that information?**

Characteristics of Good Research Questions

- Help achieve the research aim.
- Can realistically be answered within the research setting.
- Broad aims may remain unchanged, but research questions often evolve during the study.

Defining the Case

Research questions should be:

- Informed by existing literature.
- Based on theoretical understanding.
- Appropriate for the research setting.

Each case must have a **pre-defined boundary** that specifies:

- Scope of the case.
- Beginning and end of the study period.
- Relevant social group, organization, or geographical area.

- Types of evidence to be collected.
- Priorities for data collection and analysis.

Example

Initial research questions:

- What proportion of patients do not comply with medical advice regarding medications?
- Are there differences based on age or social class?
- Is age a factor?
- Is the medical condition a factor?

As the study progresses, additional questions may emerge:

- How clearly are patients informed about drug use and compliance?
- Would follow-up improve compliance?
- Are patients taking medications but ignoring other advice such as diet and exercise?

Step 2: Select the Cases and Determine Data-Gathering and Analysis Techniques

Case = Unit of Analysis

- The researcher selects either:
  - **Single case**, or
  - **Multiple cases**

based on the research questions.

Multiple Case Studies

Advantages:

- Allow comparisons between cases.
- Allow replication of findings.
- A typical case may support **analytical (theoretical) generalization**.

Data Collection Planning

This step also includes selecting:

- Data collection instruments.
- Data gathering strategies.
- Analysis techniques.

Site Selection

Selected sites should provide access to:

- Individuals.
- Organizations.
- Processes.
- Other units of analysis relevant to the study.

Ethical Consideration

Researchers should consider:

- Participant burden.
- Potential risks associated with participation.

Step 3: Prepare to Collect the Data

- Case study research produces **large amounts of data** from multiple sources.
- Proper preparation saves time and reduces future difficulties.

Preparation should include:

- Organizing databases.
- Creating categories for sorting data.
- Planning data management procedures.

Importance of Piloting

Pilot testing helps:

- Identify weaknesses in the study.
- Reveal the need for major changes in:
    - Research design.
    - Research questions.
    - Data collection procedures.

Step 4: Collect Data in the Field

Key Points

- Data collection is **emergent** and may evolve during the study.
- Field notes are extremely important.
- Researchers must consider:
    - Available time.
    - Budget limitations.

When Should Data Collection End?

1. Exhaustion of Sources

- Information sources have been used repeatedly.
- Further engagement yields little new information.

2. Saturation of Categories

- Coding categories become well established.
- Additional data contributes only minimal new insights.

3. Overextension

- New information becomes increasingly unrelated to the core categories.
- Additional data no longer contributes meaningfully to theory development.

Step 5: Evaluate and Analyse the Data

Triangulation is Essential

- Findings should be compared across multiple:
    - Data sources.
    - Methods.
    - Perspectives.

Purpose:

- Increase credibility.
- Improve validity.
- Strengthen conclusions.

Step 6: Prepare the Report

When writing the report:

Include Sufficient Context

The reader should understand:

- How the study was conducted.
- What procedures were followed.
- How conclusions were reached.

Protect Participants

Researchers must ensure:

- Anonymity of participants.
- Anonymity of case sites.
- Confidentiality of collected information.

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13. Limitations of Case Study Research

- **Large amounts of data** may make in-depth analysis difficult within available time and resources.
- Determining the **boundaries of the case** (time, events, processes) can be challenging.
- Large quantities of data may cause the researcher to drift away from the main research focus.
- **Limited generalizability** compared to quantitative studies.
    - Can be improved by using **multiple cases**.

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14. Case Study Example

Paper Title: Nurses' Paediatric Pain Management Practices

The researcher used a **case study approach** and collected several datasets:

Data Sources

1. **Observational data**
    - To examine actual pain management practices.
2. **Questionnaire data**
    - To assess nurses' knowledge of paediatric pain management.
    - To assess how well nurses believed they managed pain.
3. **Questionnaire data**
    - To assess how important nurses perceived pain-management tasks to be.

Findings

After analysing datasets separately and comparing them:

1. Nurses' theoretical knowledge **did not affect** the quality of pain management practices.
2. Nurses' perception of task importance **did not affect** whether they actually performed the task.
3. Differences existed between:
    - **Self-reported practices**
    - **Observed practices**

    Actual observed practices often **did not follow best-practice guidelines**, while self-reported practices generally suggested that they did.

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15. Ethnography (Definition)

Definition

- Ethnography is the study of:
    - Social interactions
    - Behaviours
    - Perceptions

within:

- Groups
- Teams
- Organizations

- Communities

Main Aim

To provide:

- Rich insights into people's views and actions.
- Deep understanding of the setting they live in.

Using:

- Detailed observations.
- Interviews.

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16. Other Definitions of Ethnography

Hammersley (2006)

- Ethnography is a first-hand study of:
  - What people do.
  - What people say.
  - Within a specific context.

Data commonly collected through:

- Participant observation.
- Open-ended interviews.
- Documents.

Goal:

- Understand participants' perspectives.

Flick (2002)

- Ethnography explores the nature of social phenomena.
- Commonly uses **unstructured data**.

Honer (1993)

- Ethnography focuses on:
    - Specific cultures.
    - Their characteristics.
    - All information embedded within them.

Webster (2019)

Ethnography is a qualitative methodology that uses:

- Participant observation.
- Non-participant observation.
- Interviews.
- Textual analysis.

The two defining features are:

1. **Strong emphasis on observation.**
2. **Focus on culture.**

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17. Characteristics of Ethnography

- A well-established anthropological method.
- Produces a **holistic description and analysis of culture**.
- Usually relies on **participant observation**.
- Helps overcome limitations of interview-only studies.
- Uses **triangulation** through:
    - Observation.
    - Interviews.
    - Documents.

Benefits

- Researchers immerse themselves in real-life settings.
- Develop a rich understanding of social actions.
- Gain access to social practices that are often hidden from outsiders.

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18. Ethnography Data Collection

Role of the Ethnographer

The ethnographer:

- Observes the group.
- Participates actively in daily life.
- Studies everyday social interactions.

Sources of Information

1. Members of the society/community.
2. Documents related to the phenomenon.

Main Data Collection Methods

- Observation.
- Interviews.

Together these form **Ethnographic Fieldwork**.

Additional Method

- **Ethno-historic research**
    - Uses earlier written records and documents.

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19. Long-Term Involvement

Ethnography requires:

- Long-term observation.
- Long-term engagement.

Purpose:

- Understand complex:
    - Beliefs.
    - Attitudes.
    - Behaviours.

Benefits of Prolonged Immersion

- Builds trust and relationships.
- Helps understand the broader social context.

Technology in Data Collection

Portable:

- Audio recorders.
- Video recorders.

Can rapidly generate large amounts of useful data.

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20. Immersion in Ethnography

Immersion

Means:

- The researcher remains in the field over an extended period.
- Makes repeated observations over time.

Important point:

- Understanding develops gradually.
- A single observation is never enough to fully understand a phenomenon.

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21. Reflexivity in Ethnographic Research

Definition

Reflexivity refers to awareness of:

1. How the researcher affects participants and the research setting.
2. How the research experience affects the researcher.

(Gilgun, 2008)

Reflexivity as Self-Examination

Researchers examine:

- Their assumptions.
- Emotional reactions.
- Cultural background.
- Personal biases.

Common methods:

- Keeping reflective journals.
- Debriefing with others.
- Continuous self-evaluation.

Key Principle

Researchers look in **two directions simultaneously**:

- At participants.
- At themselves.

The goal is to make the relationship and influence between researcher and participants explicit.

Importance of Reflexivity

Improves research quality by:

- Increasing trustworthiness.
- Revealing researcher influence.
- Providing transparency throughout the research process.

Readers can better understand:

- What happened during the study.
- How conclusions were reached.

22. Additional Characteristics of Ethnography

Exploratory Nature

Ethnographic research is primarily exploratory.

Researchers enter the field to:

- Explore a cultural group.
- Explore social interactions.

Flexible Design

Throughout the study, the ethnographer may modify:

- Research questions.
- Research design.
- Data collection techniques.

This is called:

Interactive-Reactive Approach

(Zaharlick, 1992)

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23. Limitations of Ethnography

1. Ethnography is more difficult to conduct than many other qualitative approaches.
2. Everyday life is unpredictable.
3. Data collection may be disrupted by:
    - Local circumstances.
    - Organizational changes.
    - Political issues.
4. Access to participants or settings may be withdrawn unexpectedly.

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24. Use of Ethnography in Healthcare

Ethnography is increasingly used in healthcare research to study:

- Behaviours.
- Social interactions.
- Healthcare culture.

Why is it Useful?

Although hospitals may appear similar:

- Each hospital has its own culture.
- Decision-making processes vary.
- Patient care practices differ.

Benefits in Healthcare

Ethnography helps researchers understand:

- Social backgrounds of patients.
- Cultural influences on health behaviours.
- Differences in care practices between groups.

Main Outcome

A deeper understanding of patient behaviour allows healthcare providers to deliver care that better fits patients' social and cultural needs.

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26. Steps of Ethnographic Research

1. Planning

Access and Ethics

- Obtain approval from relevant decision-makers before entering the research setting.
- Access may be difficult because people may not want to be observed or studied.
- Establish **rapport** (trust and good relationships) with participants.

- Work with **gatekeepers** who control access to the setting.
- Obtain ethical approval before data collection.

Ethical Issues

1. Avoidance of harm.
2. Informed consent.
3. Privacy and confidentiality.

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2. Sampling

- Ethnography mainly uses **Purposive Sampling**.
- The researcher deliberately selects a specific group and setting relevant to the research question.
- Usually one study site is chosen.
- Within that site, multiple individuals, activities, and interactions are observed to understand daily life comprehensively.

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3. Data Collection

A. Participant Observation

- Core method in ethnography.
- Combines:
    - Observation.
    - Direct participation.
    - Interviews.
    - Document analysis.
- Researcher becomes closely involved with participants and their environment.
- Allows understanding of behaviors in their natural context.

B. In-depth Interviews

Also called:

- Focused interviews.
- Unstructured interviews.
- Ethnographic interviews.

Characteristics

- No fixed questions.
- Conversation-based.
- Encourage participants to explain their own interpretations and experiences.
- Complement participant observation by revealing meanings behind observed behaviors.

C. Triangulation

Using multiple sources or methods to gain a deeper understanding.

Types of Triangulation

1. **Data Triangulation**
    - Different sources of data.
    - Example: nurses, patients, and hospital records.
2. **Method Triangulation**
    - Different methods.
    - Example: observation + interviews + document review.
3. **Investigator Triangulation**
    - More than one researcher analyzes data.
4. **Theory Triangulation**
    - Using multiple theories to interpret findings.

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4. Data Analysis

Thematic Analysis

- Field notes and interview transcripts are compared.
- Similarities and differences are identified.
- Themes and meanings are developed.
- Helps explain observed behaviors and participant perspectives.

Descriptive Analysis

- Traditional ethnographic approach.
- Provides a rich, detailed description of culture, behaviors, and social interactions.

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5. Writing the Report

- Clearly describe:
  - Data collection procedures.
  - Analysis procedures.
  - Development of findings.
- Transparency improves **trustworthiness** of the study.

Emic and Etic Perspectives

Emic (Insider View)

- Participant's perspective.
- Focuses on meanings understood by members of the culture.
- Culture-specific.

Example: Understanding why a certain community performs a specific religious ritual.

Etic (Outsider View)

- Researcher's perspective.
- Uses universal concepts for comparison.
- Cross-cultural.

Example: Studying how rituals contribute to social cohesion across different societies.

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27. Limitations of Ethnography

1. Small Sample Size

- Long observations and interviews limit the number of participants.

2. Hawthorne Effect

- Participants may alter their behavior because they know they are being observed.

3. Limited Generalizability

- Findings are often specific to one culture or setting.
- Difficult to generalize to other populations.

4. Acceptance of the Culture

- Researcher may struggle to gain acceptance and trust within the studied culture.

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28. Case Study vs Ethnography

Case Study	Ethnography
Focuses on a bounded case (individual, program, organization, event).	Focuses on culture, social interactions, and everyday life.
Mainly uses interviews and multiple data sources.	Emphasizes participant observation.
Can use qualitative, quantitative, or mixed methods.	Primarily qualitative.
Does not require long immersion in the field.	Requires prolonged immersion in the field.
Studies a specific case.	Studies a culture or social group.
Observation is optional.	Observation is central.

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