Session 10. Rigour & Ethical Issues

Health Systems Research Course
Western China School of Public Health
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1. Identify research focus (problem/concern/opportunity) and question

2. Design study

3. Ensure quality and rigour

4. Apply ethical principles
Rigour in HSR

• Health systems are complex phenomena
  – They include multiple & overlapping institutions, process & practices

• Consequently, HSR demands:
  – An active process of questioning and checking during the research process
  – A constant process of conceptualising and reconceptualising
  – Crafting interpretive judgements
  – Researcher reflexivity
Key concepts

• Validity
  – does the study *actually* measure what it aims to measure?
  – Internal v external validity

• Internal validity (cause-effect relationships)
  – Threats to validity: selection bias, measurement bias, confounding

• External validity (generalizability)
  – representative sample
  – valid and reliable methods

• Reliability
  – "consistency" or "repeatability" of your measurements
The researcher...

- Needs an enquiring mind
- Must be good at seeing/hearing the world around
- Adaptiveness and flexibility
- Understanding the key issues
- Be aware of potential sources of bias
  - Need for researcher reflexivity
Reflexivity

Self-reflection on your role as a researcher
Becoming reflexive

• Identify your personal standpoint in relation to the topic
• Clarify your own value system
• Identify areas of possible role conflict
• Identify other sources of personal bias
• Identify gatekeepers/respondents and how they will (seek to) influence you

– Adapted from Robson (2002)
Reflexivity exercise

• What are your key characteristics as a researcher?

• What aspects of your character may influence the way you see the world or conduct research?

• What things do you need to be aware of when you are designing research and/ or collecting data?

• Write this down; you have 5 minutes
Triangulation

- Use of multiple data sources and methods
- Uses of multiple theories (where appropriate)
- Use of multiple Cross-checking between researchers
Fixed designs
• Are the findings valid?
• Are the findings statistically generalisable?

Flexible designs
• Are the findings plausible?
• Do the findings provide theoretical insights that can be projected to other contexts?
  ➢ analytic generalisability
• ‘Short cuts’ or starting points for future research
• Potential sources of bias include:
  – reactivity (e.g. Hawthorne effect)
  – respondent (e.g. social desirability bias)
  – researcher (e.g. preconceived ideas)

• This underlines the need for good research design & researcher reflexivity
  - Adapted from Robson (2002)
Strategies to enhance rigor

- Reflexivity & triangulation
- Use theory
- Use literature and a carefully designed study protocol
- Careful choice of methods to fit your research questions
- Prolonged involvement with subjects
- Negative/’deviant’ case analysis
- Counterfactuals (rival explanations)
- Member checking (respondent validation)
- Peer debriefing/support
Case studies

Validity in case study work requires paying attention to the trustworthiness of the interpretive analysis and the resulting generalisable claim.
Issues with case studies

• Case selection and sampling

• Data collection approach and procedures
  – prolonged engagement with cases

• Analytic procedures:
  – respondent validation (member checking)
  – triangulation across data sets and with theory
  – negative case analysis
  – peer debriefing and support

• Clear report of methods of data collection and analysis (audit trail)
Generalisation

• Analytical versus theoretical generalisation

• Develop ‘theoretical’ insights’ (generalisable claims) by:
  – building or testing theory and/or
  – comparative analysis across multiple cases

• These insights are universal enough to have relevance in other settings
Interpretive analysis in HSR

• Keep focus on your research questions

• Analysis begins during data collection
  – looking for patterns and possible explanations

• Always need to reduce and display data
  – narratives, examples of broader phenomena, diagrams, figures, pictures, tables
• Ask questions of the data:
  – Is explanation plausible?
  – Can you find evidence confirming it?
  – Can a finding be replicated in another data set?
  – Be reflective!

• Contextualise in analysis
  – think about relevant features of the specific social & physical setting including historical factors, that support explanation
  – Identify from theory and in analysis
Four key steps in HSR

1. Identify research focus (problem/concern/opportunity) and question
2. Design study
3. Ensure quality and rigour
4. Apply ethical principles
Research ethics

• How can we protect those involved in research & affected by it?
  – What harms may come from the research?
  – Who may this affect?
  – What could be the unintended consequences?

• What can we do to avoid/ mitigate this?

• Social value and risk benefit ratios

• Informed consent and respect for participants and communities

• Independent review

- Adapted from Emanuel et al. 2004
Ethics approval

• What are the rules covering the conduct of research in your university?
  – Which body gives ethical approval
  – What are the procedures
  – How long does this take?

• Where else do you need ethical approval from?
  – Funder, local government, professional bodies

• Are there other relevant codes and guidelines which may help you?
Informed consent

• You must tell participants what the study is about
  - Why is their participation needed
  - What will happen in the study (interview, focus group etc)
  - What will happen to their data (storage, use)
  - What their rights are, and your responsibilities as a researcher
  - Information sheets and consent forms
  - Is informed consent always possible?
Ethical issues in HSR

- Involving people without consent
- Coercing them to participate
- Withholding information about true nature of research
- Deceiving participants
- Inducing participants to commit acts diminishing of their self-esteem
- Exposing participants to physical or mental stress
- Withholding benefits from some participants
- Not treating participants fairly or with respect
- Violating confidentiality and anonymity
Other ethical challenges

• What should you do if you informed about or observe unethical behaviour of providers, managers, community members?
  – What might the implications of this be for you and for the participants?

• What are the implications of working with vulnerable groups
  – Children, elderly, people suffering from shock/trauma, with health conditions
  – What are the implications for gaining informed consent
Things to consider

• Gaining consent and relative power:
  – from policy makers to marginalised groups

• Anonymity and small sample sizes
  – How do you attribute results anonymously?

• Acting ethically towards field workers

• Recognising researchers’ privilege and power

• Where does the researcher’s role end?
Researcher safety

• It is essential to consider not just the situation of the respondent but of the researcher too.

• What are the potential sources of danger for you in doing the research?

• Are you required to do a risk assessment by your ethics body?

• What things would you consider in doing a risk assessment?
Risk assessment

• Location and environment

• Who will you be working with/ coming into contact with?

• Your property

• Equipment

• Will you be working alone?

• Working after dark/ in unfamiliar surroundings

• What’s your plan in an emergency? Key contacts?
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Exercise

• In your groups, think about the HSR study you are designing

• Consider what are the main ethical considerations regarding your project and the study design you bare using

• Complete the ethics approval application form for your project

• Prepare a short (5 min) presentation on the ethical issues raised by your project

• You have 25 minutes to complete the task
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