A brief introduction to realist research approaches

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The National Institute for Health Research School for Primary Care Research (NIHR SPCR) is a partnership between the Universities of Bristol, Cambridge, Keele, Manchester, Newcastle, Nottingham, Oxford, Southampton and University College London.
Structure of this session

- Objectives
- What are realist research approaches
- When might they be used
- Challenges from using realist research
- Wrapping up comments

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Objectives

By the end of this presentation hopefully you will have an understanding of:

- what realist research approaches are
- complexity and realism
- when these approaches might be useful
- challenges from using realist research approaches
Realist research approaches

- Realist evaluation = primary research
- Realist review / synthesis = secondary research
- Both approaches:
  - have more of an explanatory rather than judgmental focus.
  - based on a realist philosophy of science (ontology)
  - looks for *mechanisms* and *middle-range theories*.
  - iteratively tests and builds these theories.
  - looks to answer the ‘How?’, ‘**Why**?’, ‘For whom?’, ‘To what extent?’ and ‘In what circumstances?’
  - helpful in making sense of interventions and programmes that are *complex* and have outcomes that are *context dependent*
Context + Mechanism = Outcome

- A logic of analysis
- A model of causation (generative)
- A basis for transferable lessons

The logic of analysis (C+M=O) is a way of interrogating theory with data and a way of using theory to understand patterns in data.
Causation

<table>
<thead>
<tr>
<th>Symptoms and signs</th>
<th>Mechanisms</th>
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<tbody>
<tr>
<td>Severe myocardial ischaemia:</td>
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<td>Chest pain</td>
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<td>Fourth heart sound</td>
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<td>Low grade fever</td>
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<td>Leucocytosis and increased levels of inflammatory markers</td>
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<td>Increase in troponin levels</td>
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<td>Activation of autonomic nervous system:</td>
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<td>Tachycardia and sweating</td>
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<td>Bradycardia, nausea, and vomiting</td>
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Newton discovers comedy
Complexity – a realist perspective

- **Volitions**
  - People make choices

- **Implementation**
  - Long implementation chain

- **Context**
  - Pre-existing context – micro to macro

- **Time**
  - Programmes / interventions come from somewhere

- **Outcomes**
  - Desired, undesired and intermediate / proximal

- **Rivalry**
  - Interaction (if any) with existing programmes / interventions

- **Emergence**
  - Things change!!!

What happens in a complex intervention?

• When participants take part in a complex intervention, they make choices about what actions to undertake and these choices about actions give us our outcomes.

• Participants do not have an infinite range of choices available to them as to what actions they might take.

• The range of choices is limited and determined by the context in which the person is in.

• Various ‘mechanisms’ lie behind these choices.
A simplified diagram of a ‘complex’ intervention

The multitude of interactions within a complex intervention may seem daunting!
One section of the causal chain of a ‘complex’ intervention

A mechanism is ‘something’ that causes the ‘move’ from B to C

BUT… the context in which this intervention is taking place may limit and/or influence this decision
Hence...

**CMO and middle-range theory**

- Mechanisms are one of the building blocks of middle-range theories.
- Middle-range theories explain how and why the context limits and influences mechanisms.

Intervention

- Context influences which mechanisms ‘fire’.

**Context + Mechanism = Outcome**
Challenges in undertaking realist research

- Understand realism – especially generative causation
- Understanding what realist evaluation is (and is not) – a “way of thinking”
- No one understands me 🤗
- Applying C+M=O – “Considerable work and analytic effort is needed …”
- Grappling with complexity – the need to set boundaries and consider different ‘levels’ in the system (e.g. “individual, interpersonal and organisational”)
- Getting the ‘right’ kind of data needed
- Managing the data to enable theory development and ‘testing’

Quality and reporting standards and training resources

• RAMESES I and II Projects
  Realist evaluations and realist reviews have:
  • Reporting standards
  • Quality standards
  • Training materials

• Look online at:
  – www.ramesesproject.org
  – www.jiscmail.ac.uk/RAMESES
• Many interventions or programmes are ‘complex interventions’

• Complexity comes about because of V I C T O R E

• One way to make sense of complex interventions is to account for how outcomes occur – i.e. a model of causation. In realism the explanation for why knowledge is transferable is based on mechanisms

• Many current research methods often lack a coherent account of how outcomes occur in relation to context and what the warrant is for transferable knowledge

• Realist research approaches help by focussing on the influences of context on mechanisms and dare to look inside the ‘black-box’ of the intervention itself!
Suggested readings:


• Emmel N. et al. **Doing Realist Research**. London, Sage, 2018

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