Developing Systems Thinking for Health

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Reality Check…
…beyond ‘contingency’

1. Complicatedness
   …everything connects

2. Complexity
   … people are involved

3. Conflict
   … ideas (bounded) are partial

All health situations comprise an interacting mixture of:

(1) inter-relationships,
(2) multiple perspectives, and
(3) boundary judgments

From ‘wicked’ situations to ‘routine’ practices

There are no objectively ‘simple’ situations
There are subjectively defined simple systems
Responsibility in health practice?

X3 elements of change in systems thinking for health

Agency of change: conceptual framing of health issues through ‘systems of interest’

Systems thinking – an endeavour to render situations into ‘simpler’ bounded conceptual constructs (‘systems’) for analysis and for transformation...’systems for health improvement’

Agents of change

Health (practitioners); Planners; Citizens; Researchers etc.

Situations of change

...relating to wicked or routine health issues of complicatedness, complexity, and conflict

Responsibility = dealing with all three interacting issues of (1) complicatedness (inter-relationships), (2) complexity (multiple perspectives), and (3) conflict (boundary judgements – what’s in and what’s out; and whose views count)
Developing systems for health
System 1: critical systems heuristics (CSH)

A purposeful system: developing Partnerships for Wellbeing and Health (Helen Wilding)

<table>
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<tr>
<th>Stakeholders Social Roles</th>
<th>Stakes Role-specific concerns</th>
<th>Stakeholdings Key Problems</th>
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<td>Sources of control</td>
<td>4. Decision-maker</td>
<td>5. Resources</td>
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M. Reynolds and H. Wilding (2017) Boundary critique: an approach for framing methodological design Ch. 3 in *Applied Systems Thinking for Health Systems Research*
Developing systems for health
System 1: critical systems heuristics (CSH)

Responsibility: CSH is a ‘reference system’ used for developing Partnerships for Wellbeing and Health (Helen Wilding)
(1) inter-relationships: x12 Questions; x4 sets of political economy; x3 attributes of stakeholding; x1 unfolding nature
(2) multiple perspectives: x4 stakeholder groups; x2 categories of stakeholders; x2 judgements – facts and values
(3) boundary judgements: x1 reference system (complex) ...emergent purposeful system (complex adaptive system)

References

C. West Churchman (1979) The Systems Approach and its Enemies
W. Ulrich (1983) Critical heuristics of social planning
M. Reynolds and H. Wilding (2017) Boundary critique : an approach for framing methodological design Ch. 3 in
Applied Systems Thinking for Health Systems Research
Developing systems for health
System 2: systems thinking in (health) practice (STiP) heuristic

Purposeful system design (e.g. for developing Partnerships for Wellbeing and Health)

1. **Situations of change**
   - (i) Understanding inter-relationships
     - making/developing factual judgements
   - (ii) Engaging with multiple perspectives
     - making/developing value judgements

2. **Agents of change**
   - Health (practitioners); planners; citizens; researchers etc.

3. **Agency of change**: conceptual framing of health issues through ‘systems of interest’
   - (iii) Reflecting & appreciating limits on boundaries of inter-relationships and perspectives
     - making/developing boundary judgements

Systems thinking in dealing with real world issues of:

- (i) Complicatedness of inter-relationships
- (ii) Complexity of peoples’ multiple perspectives
- (iii) Conflict in boundaries, applying ‘systems’ to situations.

Developing systems for health

System 2: systems thinking in (health) practice (STiP) heuristic

Responsibility  STiP is an ‘inquiry system’ based on ideas of boundary critique (Ulrich 1996) addressing principles of health praxis expressed by Atul Gawande (practicing surgeon and philosopher on health systems)

1. Situations of change
   (i) Understanding inter-relationships
       ...making/developing factual judgements
   (ii) Engaging with multiple perspectives
       ...making/developing value judgements
2. Agents of change
   Health (practitioners); planners; citizens; researchers etc.
3. Agency of change: conceptual framing of health issues through ‘systems of interest’
   (iii) Reflecting & appreciating limits on boundaries of inter-relationships and perspectives ...making/developing boundary judgements

Traditions
American pragmatism (Peirce, James, Dewey)
Critical systems thinking (Ulrich, Midgely)
Systemic evaluation (Williams, Hummelbrunner)
Learning systems (The Open University (Blackmore, Ison)

Systems thinking for health

…. being systemic and systematic

1. Systems as Ontological device: systems to be engineered

   ‘the’ health system
   ‘the’ hospital system
   ‘the’ General Practitioner system

   purposive analysis of ‘the’ system

2. Systems as Epistemological device: situations to be explored using systems as a learning device

   purposeful systems design
From health systems to systems for health…

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1. (Conversing with reality) Understanding inter-relationships and interdependencies
   “Only Connect ….” E. M. Forster
   ‘universe’ - going up a level of abstraction…seeing the Forest through the trees, being holistic…developing the ‘bigger picture’

2. (Conversing with perspectives) Engaging with multiple perspectives
   “A systems approach begins when first you see the world through the eyes of another” C.W. Churchman
   ‘multiverse’ or ‘pluriverse’ - developing perspectives: appreciating different viewpoints…developing ‘value’

3. (conversing through reflection) Reflecting on boundaries
   “No problem can be solved from the same consciousness that created it. We have to learn to see the world anew.” Albert Einstein
   ‘re-verse’ - developing critical space: revising big pictures and revising viewpoints