

Get Real! Ten Reasons to Undertake a Realist Synthesis (Despite What You May Have Heard!)



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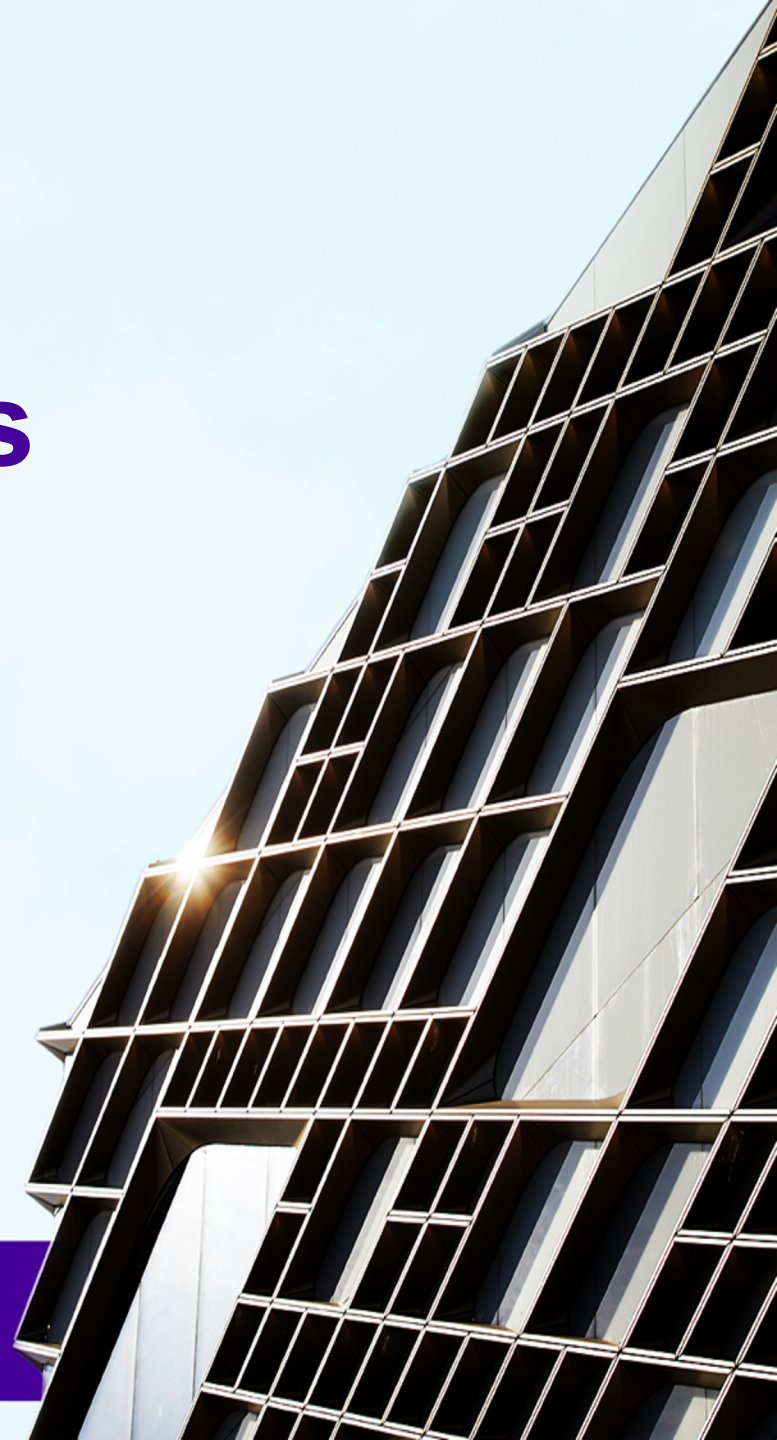
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In this presentation I will:

- Position realist synthesis against systematic reviews
- Champion systematicity against the “...and then the magic happens” approach
- Explore whether a realist synthesis can be “systematic” without aspiring to be a systematic review
- Examine where realist review sits within a “toolbox” of review approaches
- Outline the extent to which it is possible to use systematic approaches to theory generation and searching
- Briefly discuss the challenge of documenting the iterative process and “forays” into the literature required by realist synthesis
- Present ten reasons for considering what realist synthesis has to offer illustrated by my own examples to acknowledge why they may actually be worth conducting!

What's All the Fuss About?

Professor Andrew Booth
University of Sheffield



In brief, Realist Synthesis...

1. Identifies mechanisms that [**programme designers**] think underpin [**intervention**].
2. Tests those mechanisms using empirical evidence from the literature.
3. Identifies and tests other, un[fore]seen mechanisms that might underpin the intervention once it is implemented.
4. Explores which contexts “**activate**” the mechanisms for which people and in which circumstances.
5. Identifies positive and negative outcomes of the intervention, depending on which contexts and mechanisms are present (Context Mechanism Outcome configurations).
6. Synthesises evidence in order to refine the theory that the intervention rests on

Hewitt et al, 2014

Realist Synthesis versus [Conventional] Systematic Review

Realist Synthesis

- Overtly configurative/interpretive
- Flexible and iterative process
- Directed by the emerging evidence rather than being tightly defined a priori
- Draws on wider range of evidence
- Reviewer iteratively develops search strategy as review progresses (multiple, responsive searches).
- Two main stages of search process:
 - (i) identifies purported mechanisms that underpin intervention, using diverse sources (e.g. policy documents, editorials, other reviews and interviews with key informants)
 - (ii) look for empirical evidence that supports or refutes the mechanisms. Reviewer looks for contexts that activate purported mechanisms and outcomes they generate and also looks for unforeseen mechanisms and their associated contexts and outcomes.
- Contribution of studies based on relevance, richness and rigour

Systematic Review

- Primarily aggregative
- Protocol-led
- Deviations from protocol are documented
- Included study types are typically pre-specified
- Single search process typically “big bang” and upfront
- Limited engagement with theory
- Often “strips out” context
- Typically focused on Interventions
- Favours empirical evidence
- Assesses methodological quality as criterion for inclusion

Comparison of systematic reviews approaches

| | REALIST REVIEW | SYSTEMATIC REVIEW |
|----------------------------|--|---|
| Type of Intervention | Complex | Simple; discrete |
| Aim / Focus | EXPLANATORY - how 'x' works, in what contexts, for whom | JUDGEMENTAL – how much does x,y, z improve health |
| Rigor | Very Rigorous | Very Rigorous |
| Relevant Types of Evidence | Includes a wide range of research and non research (i.e., both quantitative and qualitative) | RCTs ideal. Mostly quantitative research on effectiveness (e.g., controlled & uncontrolled before & after studies, interrupted time series..) |
| Evidence Source | Peer reviewed journal literature, policy reviews, stakeholder analysis, focus groups, gray literature (reports, conference proceedings). | Peer reviewed literature (finite set of data) |
| Method | Theory-driven synthesis: deconstructs intervention into component theories. Context data retained, basic theory is refined concerning applicability in context. | Statistical synthesis/Meta-analysis: data from individual studies are combined statistically and then summarized |
| Usefulness | How to make an intervention most useful | Demonstrates which intervention has largest or smallest effect |

How was it for you? (Hewitt et al, 2014)

“Requires sustained thinking and imagination to track and trace” mechanisms through the literature (Pawson et al, 2004).

Intellectually challenging process, particularly given significant variation in processes and procedures

Needs time in the early stages of the review to debate and clarify understanding of “mechanisms”.

Challenging to identify how mechanisms are interlinked: a mechanism could activate one or more others, so 1st mechanism = context for 2nd and 2nd = outcome for 1st.

Difficulties deciding whether factor is context or mechanism, or both! (Byng, Norman, and Redfern (2005).

Degree of overlap between mechanisms – one process = many mechanisms

Interlinkage of mechanisms makes it feel artificial to separate into discrete processes.

Difficult to make sense of multiple CMO (context, mechanism or outcome) patterns, perhaps easier to look for patterns, similarities and differences.

Inclusive, wide-ranging nature makes it a substantial undertaking - in many cases limits of time and funding determine when searching ceases (Pawson et al. 2005) .

Challenging to decide when to stop searching and reading.

Time-intensive – may not be feasible, for example, to search across disciplinary boundaries for how mechanisms work in other fields.

Conversely, omitting evidence from other fields fails to “maximize learning across policy, disciplinary and organizational boundaries” (Pawson et al., 2005).

Important decision to select and prioritise some provisional mechanisms to explore in depth and not pursue others.

“Offers researchers a logic through which to explore policies and interventions and gains strength from its pluralism and flexibility (Pawson et al., 2005)” - Not to be undertaken lightly!

Not for novices! : requires broad knowledge of disciplines and methodologies and skills in searching for and assessing evidence (Pawson et al, 2004).

***“Despite the intellectual and practical challenges encountered, however, we found realist synthesis a useful means of interrogating the large literature.... It helped us articulate social processes and actions...and provided an evidence-based analytical framework for the subsequent empirical study.”
(Hewitt et al, 2014)***

Criticising the ...and then magic happens approach!

“the potential Achilles' heel of realist review seems to be that it is very dependent on the theoretical resources possessed within the review team (i.e. if you have a Pawson on your team you can potentially access loads of programme theories). Should it be possible to SYSTEMATICALLY identify and then sift candidate theories? If so how might it be done?”

“I just have the idea that we may be in danger of magicking an ingredient (i.e. programme theory) out of thin air BEFORE undertaking a quasi-systematic progression through the codified and quasi-explicit process of the realist review”. **Booth A - RAMESSES Discussion list**



My Own Examples (Realist Synthesis):

Completed:

1. Prevention of Postnatal Depression (HTA)
2. Appointment Reminder Systems (HS&DR)
3. Community Engagement for Health Literacy (Public Health)
4. Group Clinics (HS&DR)
5. Tele-Maternity (ARM@DA) (HS&DR)
6. Medically Unexplained Symptoms (HTA)
7. New Models of Care (HS&DR)
8. Avoidable Admissions (HS&DR)
9. Crisis Mental Health Services (MH-CREST) (NIHR HS&DR)

10. Research Capacity Building (CLAHRC)
11. Medication Management (HS&DR) [MEMORABLE]
12. Role of community pharmacy in the public health response to COVID-19.
13. African Food Systems (Gates Foundation)
14. Access to Social Care: LGBT+ and BAME (NIHR HS&DR)
15. Exercise for Low Back Pain (Orthopaedic Research UK)
16. Signposting services (NIHR HS&DR)

Supervised/Mentored:

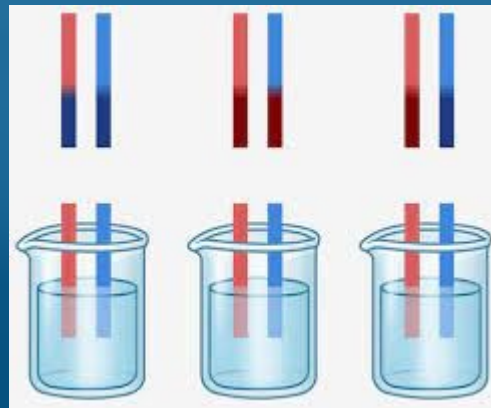
- NICE Guidance in Local Authorities
- Men's Sheds
- Community-based Arts

In Progress:

- Mental Health Staff Turnover (Health Foundation)
- Models of Nursing Skill Mix (CLEAR) (CIHR)
- Equitable Dying, Death & Bereavement (Marie Curie)
- Individual Service Funds (NIHR HS&DR)

The Litmus Test!

**Pope, Mays & Popay (2007) state that synthesis seeks to demonstrate that "the whole is greater than the sum of its parts"
i.e. that the synthesis activity adds some value.**



A hand holding a pen over a stack of papers, with a red overlay. The text is centered on the page.

Ten Reasons to Undertake a Realist Synthesis

1. **Context matters:** Realist synthesis emphasizes understanding how, for whom, and in what contexts interventions work. This nuanced perspective moves beyond simplistic "one-size-fits-all" answers and provides tailored knowledge for specific situations.



Research | [Open access](#) | [Published: 15 February 2017](#)

Making sense of complexity in context and implementation: the Context and Implementation of Complex Interventions (CICI) framework

[Lisa M. Pfadenhauer](#), [Ansgar Gerhardus](#), [Kati Mozygemba](#), [Kristin Bakke Lysdahl](#), [Andrew Booth](#), [Bjørn Hofmann](#), [Philip Wahler](#), [Stephanie Polus](#), [Jacob Burns](#), [Louise Brereton](#) & [Eva Rehfuess](#)

[Implementation Science](#) 12, Article number: 21 (2017) | [Cite this article](#)

Analysis

BMJ Global Health

Taking account of context in systematic reviews and guidelines considering a complexity perspective

Andrew Booth,¹ Graham Moore,² Kate Flemming,³ Ruth Garside,⁴ Nigel Rollins,⁵ Özge Tunçalp,⁶ Jane Noyes⁷

ABSTRACT

Systematic review teams and guideline development groups face considerable challenges when considering context within the evidence production process. Many complex interventions are context-dependent and are frequently evaluated within considerable contextual variation and change. This paper considers the extent to which current tools used within systematic reviews and guideline development are suitable in meeting these challenges. The paper briefly reviews strengths and weaknesses of existing approaches to specifying context. Illustrative tools are mapped to corresponding stages of

Summary box

- ⇒ In systematic reviews and guidelines about complex interventions, considering context is challenging because it is diversely defined and dynamic.
- ⇒ Context is typically caricatured as a location in time, in an organisational level or within a geographical space. Reviews and guidelines rarely provide sufficient detail of the context of an intervention in terms of its location in social, cultural, political or economic space.

To cite: Booth A, Moore G, Flemming K, et al. Taking account of context in systematic reviews and guidelines considering a complexity perspective. *BMJ Glob Health* 2019;4:e000840. doi:10.1136/bmjgh-2019-000840

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Understanding 'context' in realist evaluation and synthesis

Joanne Greenhalgh & Ana Manzano

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ABSTRACT

Context is a key concept in developing realist causal explanations but its conceptualisation has received comparatively less attention. We conducted a review to explore how context is conceptualised within realist reviews and evaluations. We purposively selected 40 studies to examine: How is context defined? And how is context operationalised in the findings? We identified two key 'narratives' in the way context was conceptualised: 1) Context as observable features (space, place, people, things) that triggered or blocked the intervention; assuming that context operates at one moment in time and sets in motion a chain reaction of events. 2) Context as the relational and dynamic features that shaped the mechanisms through which the intervention works; assuming that context operates in a dynamic, emergent way over time at multiple different levels of the social system. These two context narratives have different implications for the design, goals and impact of realist reviews and evaluations.

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Case Study #1: Nurse Staffing Models

- Four Country Project (UK, Canada, Australia, Netherlands)
 1. Services where Health Care Assistants are **Substituting**
 2. Services where Health Care Assistants are **Complementary**
- But “Context” is not just the Geographical Setting

1. Context matters
2. **Theory-driven:** Unlike traditional systematic reviews, realist synthesis is grounded in realist philosophy and social theory. This allows for deeper understanding of the mechanisms and causal relationships that drive outcomes.

- “A variety of methods are available to integrate quantitative and qualitative research in a single synthesis (**e.g., realist synthesis**) and integrate findings from quantitative and qualitative syntheses.
- **The challenge to reviews that investigate dimensions of complexity is elucidating the sources of variation in the intervention and its effects.** Qualitative synthesis can be useful...by shedding light on the meaning of the problem and potential solutions. Program theory and logic models mapping key dimensions of the intervention and context can enhance the capture of information. **These models may evolve as evidence accrues during the course of the review”**,

Anderson LM, Oliver SR, Michie S, Rehfues E, Noyes J, Shemilt I. Investigating complexity in systematic reviews of interventions by using a spectrum of methods. *Journal of Clinical Epidemiology*; 2013 Nov;66(11):1223–9. Available from: <http://dx.doi.org/10.1016/j.jclinepi.2013.06.014>

Logic Models as an alternative

Guidance on the use of logic models in health technology assessments of complex interventions

6

<http://www.integrate-hta.eu/wp-content/uploads/2016/02/Guidance-on-the-use-of-logic-models-in-health-technology-assessments-of-complex-interventions.pdf>

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Original Article

Logic models help make sense of complexity in systematic reviews and health technology assessments



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PROTOCOL OPEN ACCESS OPEN PEER REVIEW

To what extent do site-based training, mentoring, and operational research improve district health system management and leadership in low- and middle-income countries: a systematic review protocol

Zakaria Belrhiti, Andrew Booth, Bruno Marchal and Roosmarijn Verstraeten

Systematic Reviews 2016, 5:70 | DOI: 10.1186/s13643-016-0239-z | © Belrhiti et al. 2016

Received: 21 January 2016 | Accepted: 6 April 2016 | Published: 27 April 2016

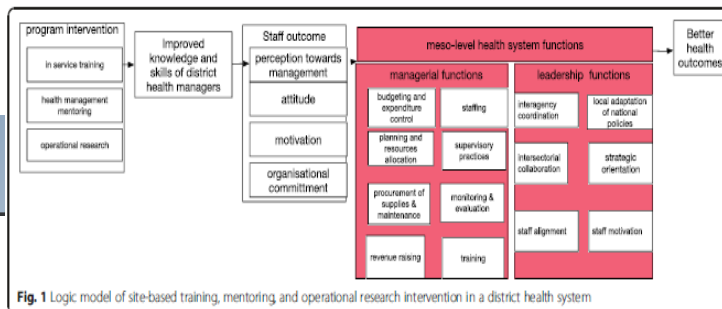


Fig. 1 Logic model of site-based training, mentoring, and operational research intervention in a district health system

Case Study #2: Supporting Postnatal Depression

- Looked at wide variety of ways of providing postnatal support (included face to face and via telephone; individual and group)
- Unusually!, many reports of interventions made explicit link to theory
- We linked others through implicit links recognised by members of the review team
- Social comparability could be Positive (“She is getting better – I am like her – therefore I will get better”)
- or Negative (“She’s like me – she’s not getting better – therefore I am unlikely to get better” or “She’s getting better – but I am not as good as her – so there is no way I will get better”)

Surfacing Theory

| Initiative | Implicit/explicit presence of theory |
|--|---|
| CenteringPregnancy | CenteringPregnancy was developed and piloted by a certified nurse-midwife after experience with successful family-centred approaches to prenatal care and in recognition of repetitiousness [sic] of one-on-one prenatal care for providers. Uses a model of empowerment |
| Health Visitor PoNDER training | Health visitors were trained to deliver psychologically informed sessions based on distinct psychological theories, either cognitive-behavioural principles ³⁴⁷ or person-centred principles ³⁴⁸ |
| Home-based intervention | Attachment theory ³⁴⁹ states that parents' bonding with their own children and treatment of them is affected by their own earlier attachment history and internal working models. Attachment theory emphasises the importance of consistency in relationships and sensitive understanding of reactions to separation, loss and rejection. The theory of resilience ³⁵⁰ recognises personal resilience factors (e.g. positive orientation to problem-solving), and environmental factors (e.g. the help of a supportive adult). ^{351,352} |
| IPT standard antenatal care plus ROSE programme; IPT plus telephone follow-up; IPT-brief | IPT ³⁵³ is grounded in interpersonal theories ³⁵⁴ and attachment theories. ³⁵⁵ It is based on the hypothesis that clients who experience social disruption are at increased risk of depression. IPT specifically targets interpersonal relationships and is designed to assist clients in modifying either their relationships or their expectations about relationships. |



Linking PT and Mid Range Theory

| Programme theory | Label | Programme theory – PND will be prevented if ... | Relevant theory | Elements |
|------------------------------|-----------------------|---|---|--|
| By activity (i.e. Mid Range) | | | | |
| PT1 | Developing trust | Women develop meaningful relationships with other women in the group and with health-care providers ^{285,363} | Social cognitive theory | Group interaction |
| PT2 | Asking for help | Women are made aware that it is legitimate to ask for help ³⁶⁴ and can identify whom to ask ³⁶⁵ | Social norms | Modelling within group |
| PT3 | Learning by doing | Women acquire practical ³⁶⁶ and communication skills ³⁶⁷ that equip them for their new roles ³⁶⁶ | Social learning theory, locus of control, self-efficacy | Practical sessions, demonstrations, role play |
| PT4 | Feeling supported | Women feel supported by their partner, health professionals, peer supporters or group members to help them feel comfortable, reduce their anxiety and help them cope with challenges ^{283,285,364,368} | Social support | Group sessions, telephone, individual sessions |
| PT5 | Accessing information | Women are able to access information not before or after but when they need it ³⁶⁹ | Social learning theory, locus of control | Group or individual information sessions |

1. Context matters
2. Theory-driven
3. **Explanation over prediction:** While some methods focus on predicting outcomes, realist synthesis aims to explain why and how things happen. This richer understanding helps refine interventions and adapt them to different contexts.

Case Study #3: Signposting services

- Signposting services evaluate differently with some studies finding positive and others less so.
- **Not possible to predict** whether a service will achieve positive or equivocal outcomes
- We **explained** that while many user needs could be handled by rapid referral from a “receptionist” a small but critical percentage need more in-depth consultation - “social prescribing”. For these, repeat use may be a positive, not negative, metric.
- Also used commissioner, service provider and user programme theories to **explore/ explain** tensions cp. Programme developer

1. Context matters
2. Theory-driven
3. Explanation over prediction
- 4. Embrace complexity:** Realist synthesis acknowledges the inherent complexity of social programs and interventions. It allows for exploring diverse perspectives, unintended consequences, and the interplay of various factors.



M.P. Kelly et al. / Journal of Clinical Epidemiology 90 (2017) 11–18

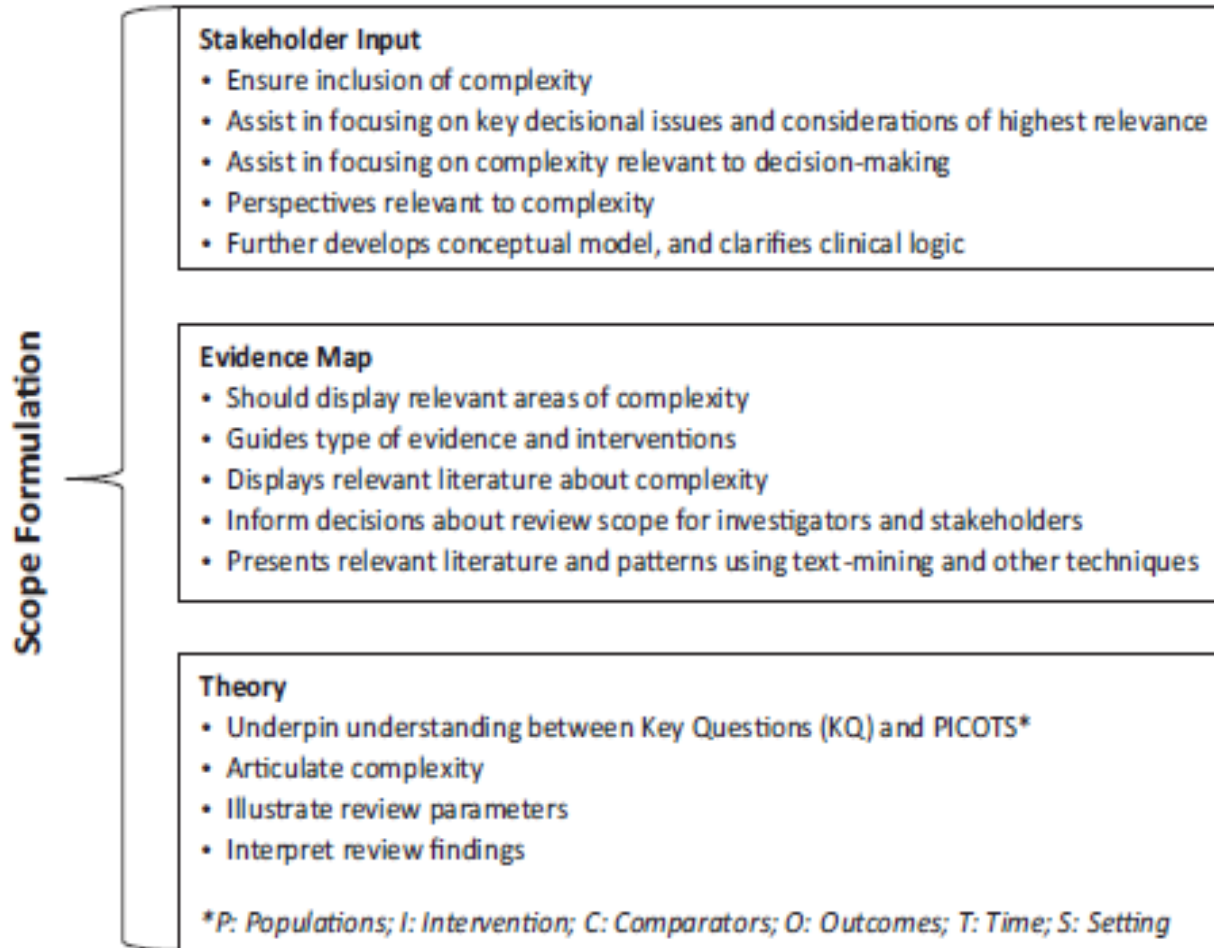


Fig. 2. Approach to scope formulation for systematic reviews of complex interventions.

Case Study #4: Appointment Reminder Systems

Approaches to Capacity:

- 1. Overbooking Model** – book at 120% becomes 100% following dropouts
- 2. Capacity Booking Model** – book at 100% and dropouts provide flexibility for other tasks

Motivations for Attendance:

- High** – Appointments for Children; Follow Up of Diagnosis
- Low** – Appointments at Population Level (e.g. Blood Donation)

1. Context matters
2. Theory-driven
3. Explanation over prediction
4. Embrace complexity
- 5. Synthesis across disciplines:** This approach can bridge disciplines by drawing from various theoretical frameworks and empirical studies. Cross-pollination of knowledge leads to more comprehensive and insightful syntheses.

Case Study #5: Research Capacity Development

Table 3 Overarching programme theories for Re:CAP (Expanded)

From: [Uncovering the mechanisms of research capacity development in health and social care: a realist synthesis](#)

| 'Label' | Elements of programme theory <i>Research capacity will be effected if...</i> | Lines for further inquiry from mid-range theory | Example of source data <i>"This was what we achieved...." "This is what I think...."</i> |
|---------------------------------------|---|--|---|
| By Activity | | | |
| PT1. 'Exceeding the sum of the parts' | Individuals/organisations/networks realise a contribution that they are unlikely or less likely to achieve in isolation | Social Network and Organisational Theory Community of Practice [69] Social Capital | <i>"Building research capacity is a complex challenge and needs to be thought of as a holistic process. Each constituent part is vital to the success of the whole, and is inextricably interlinked with all the others – a gestalt-like phenomenon in which the whole is greater than the sum of its parts" [70]</i> |
| PT2. 'Learning by doing' | Individuals/organisations prototype or practise activities required for subsequent full engagement, and sequentially learn through cycles of reflection | Experiential Learning Model [55, 61] Learning Organisation | <i>"'Learning by doing' approaches, usually in the form of developmental or seed grants, hands-on training in ongoing research programmes or mentorship programmes, are effective approaches that complement academic degree offerings. They are also most appropriate for building capacity on the 'demand' side so that those who use research findings understand and appreciate their value in improving health outcomes" [1]</i> |
| | | Social Capital Learning Organisation | <i>"Training should be and should remain one of the central foci when partnerships are awarded. Training young scientists in the context of such ongoing projects is irreplaceable (so-called 'learning by doing') and leads to a rapid acquisition and development of research skills and experience" [57]</i> |
| PT3.1 'Liberating the talents' | Individuals/organisations release the dormant potential of their skills and experience | Bourdieu's Theory of Practice 1977 | <i>"A more focused approach can accelerate progress in building capacity and allows researchers and teachers to develop their 'natural talents'" [70]</i> |
| PT4. 'Releasing resources' | Resources provided to overcome individual/organisational inhibition and act as a focus for activity, and information is freely shared about these opportunities | Lewin Model of Change (Unfreeze/Change/Freeze) Social Capital | <i>"Evidence of resource investment from the organisation to support pump-priming of research, e.g. research support sessions, pump-priming money for pre-protocol or pilot work"</i> |
| PT5. 'Coproducting knowledge' | Individuals/organisations share ideas and knowledge development through networks and partnerships | Beresford [71] Coproduction [72, 73] Social Change | <i>"Engaging other stakeholders – such as service users, community members, health practitioners and policy-makers – is helpful for setting realistic goals, meeting local priorities and addressing resource issues. This requires extensive participation and hence more resources" [74]</i> |

1. Context matters
2. Theory-driven
3. Explanation over prediction
4. Embrace complexity
5. Synthesis across disciplines
6. **Learning from failures:** Realist synthesis is not just interested in successes. It also examines why interventions do not work, leading to valuable insights for improvement and future design.


Case Study #6: Glasgow Gay Men's Project (Community Engagement)

- **U.S. MPowerment Project used gay community opinion leaders to successfully increase uptake and receptivity of health promotion messages (Success)**
- **Glasgow Gay Men's Project recruited gay men to promote health promotion and screening messages but with limited effect (Failure)**
- Glasgow Gay Men project focused on shared “gayness”, not on opinion leader status
- Intervention delivered in night clubs not in “community”
- Night clubs have their own social systems: “tribes” are quite distinct and exert limited cross influence

1. Context matters
2. Theory-driven
3. Explanation over prediction
4. Embrace complexity
5. Synthesis across disciplines
6. Learning from failures
7. **Stakeholder engagement:** By involving stakeholders in the research process, realist synthesis ensures findings are relevant and actionable for policymakers, practitioners, and service users.

Original Research

Development of the ACTIVE framework to describe stakeholder involvement in systematic reviews

Alex Pollock ¹, Pauline Campbell², Caroline Struthers³, Anneliese Synnot^{4,5}, Jack Nunn⁶, Sophie Hill⁷, Heather Goodare⁸, Jacqui Morris⁹, Chris Watts¹⁰, and Richard Morley¹¹

Objectives Involvement of patients, health professionals, and the wider public ('stakeholders') is seen to be beneficial to the quality, relevance and impact of research and may enhance the usefulness and uptake of systematic reviews. However, there is a lack of evidence and resources to guide researchers in how to actively involve stakeholders in systematic reviews. In this paper, we report the development of the ACTIVE framework to describe how stakeholders are involved in systematic reviews.

Methods We developed a framework using methods previously described in the development of conceptual frameworks relating to other areas of public involvement, including: literature searching, data extraction, analysis, and categorization. A draft ACTIVE framework was developed and then refined after presentation at a conference workshop, before being applied to a subset of 32 systematic reviews. Data extracted from these systematic reviews, identified in a systematic scoping review, were categorized against pre-defined constructs, including: who was involved, how stakeholders were recruited, the mode of involvement, at what stage there was involvement and the level of control or influence.

Results The final ACTIVE framework described whether patients, carers and/or families, and/or other stakeholders (including health professionals, health decision makers and funders) were involved. We defined: recruitment as either open or closed; the approach to involvement as either one-time, continuous or combined; and the method of involvement as either direct or indirect. The stage of involvement in reviews was defined using the Cochrane Ecosystem stages of a review. The level of control or influence was defined according to the roles and activities of stakeholders in the review process, and described as the ACTIVE continuum of involvement.


| Framework Constructs | Categories | |
|--|--|--|
| Who was involved? | Patients, carers and / or their families | |
| | Patients, carers and / or their families + other stakeholders | |
| | Other stakeholders only | |
| How were stakeholders recruited? | Open | Fixed |
| | | Flexible |
| | Closed | Invitation |
| | | Existing group |
| | | Purposive sampling |
| What was the mode of involvement? | Approach? | One-time |
| | | Continuous |
| | | Combined (i.e. both one-time and continuous) |
| | Methods? | Direct interaction |
| | | No direct interaction |
| | | |
| At what stage in the review process did involvement occur? | What was the level of involvement (at each stage)? | |
| |  <p style="text-align: center;"> <i>Leading</i> <i>Controlling</i> <i>Influencing</i> <i>Contributing</i> <i>Receiving</i> </p> | |

Figure 1. The ACTIVE framework of involvement in a systematic review.

Manuscript Under Submission: Advisory groups in realist reviews: systematically mapping current research and recommendations for practice
 Authors: Jessica Power, Sara Dada, Andrew Booth, Aoife De Brún and Brynne Gilmore

Case Study #7: Individual Service Funds for adults with a learning disability

- Co-produced programme of work with Speakup self advocacy. Speakup employs self advocates who have mild to moderate learning disabilities, with or without autism.
- Speakup employees are co-applicants and sit on the project management group.
- Easy Read meeting papers and meeting notes – for everyone
- Speakup Project Working Group advised on the recruitment process and study materials used for interviews with adults with a learning disability.
- Stakeholder Advisory Group including commissioners, social workers, support providers, carers and advocacy workers meet regularly to discuss study progress.

Extract from Easy Read Meeting Notes



Realist Review

- We have 8 theories. We shared information about them with the group.
- We searched for information about ISFs, personal budgets and similar topics.
- We have “ethical approval” to do interviews and workshops.
- We will interview adults with learning disabilities who have an ISF.
- Workshops are being planned with;
 - 
 - A group of carers
-  can help us find people to take part in workshops.

Action: Team will ask  if they need help.

1. Context matters
2. Theory-driven
3. Explanation over prediction
4. Embrace complexity
5. Synthesis across disciplines
6. Learning from failures
7. Stakeholder engagement
8. **Iterative and flexible:** Unlike pre-defined protocols, realist synthesis is an iterative process that adapts to new findings and emerging theories. Flexibility allows for deeper exploration and nuanced understanding.

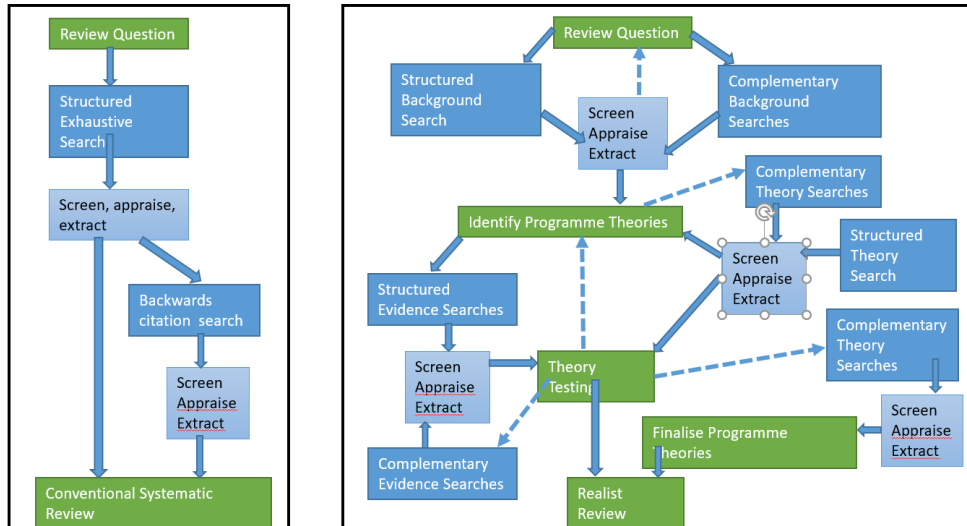
Case Study #8: Africa Food Systems

Booth et al

Table 2. Evidence From Ghana, Kenya and beyond for PTs for All Five Policies

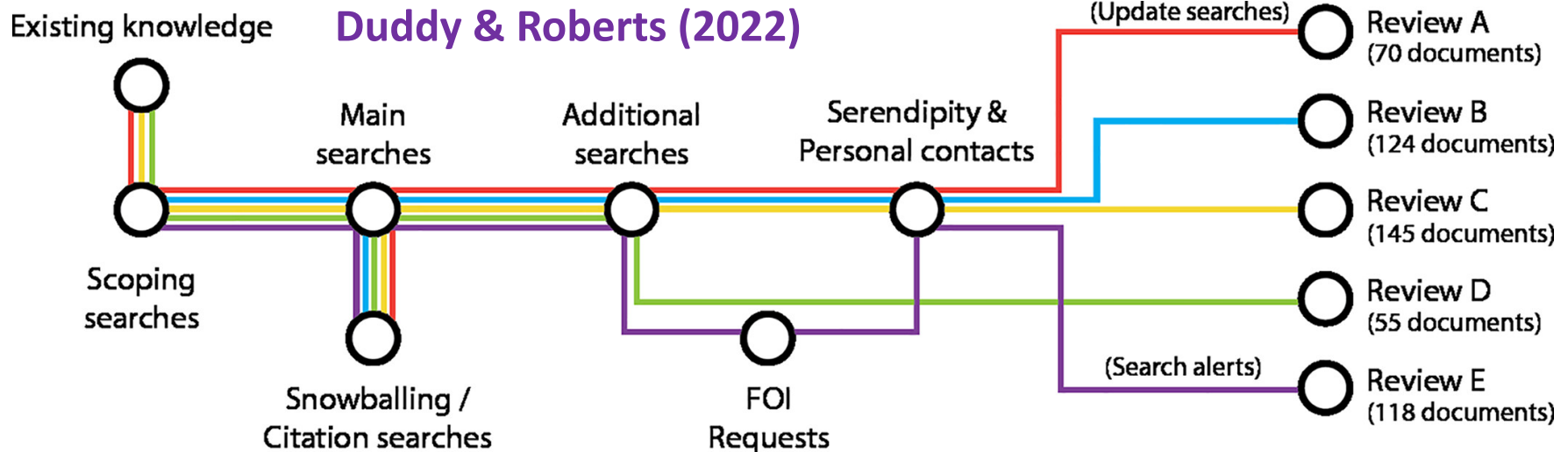
| PT | Summary of Evidence Base | Supporting Evidence | | | |
|-----------------------------|---|---|--|---|---|
| | | Reviews | Ghana | Kenya | Other Countries |
| PT1 trade | Review papers (systematic reviews, narrative commentaries) set out generalised potential pathways between government action and food consumption. Primary studies focusing on Ghana and Kenya indirectly relevant, providing insight on topics relating to trade and/or investment. Limited evidence of policy examples to regulate trade in goods of direct relevance. No examples of action to regulate trade in services/FDI. Limited consideration of differential impacts across population/socio-economic groups. | 21 reviews ^{29,31-33,35-37,41-46,49,58,60,67-70} | 10 studies ^{12,39,50,52,53,57,59,61,71} | 7 studies ^{13,47,48,51,56,63,72} | 11 papers ^{30,34,40,54,55,62,64,65,66,73-74} |
| PT2 nutrition claims/labels | Extensive international coverage of issues relating to food labelling, including front-of-package and back-of-package marketing. ⁷⁵⁻⁸⁸ Ghana has seven research studies examining effects of food labelling on consumer attitudes and/or behaviour. ⁸⁹⁻⁹⁵ Kenya has no identified studies of food labelling, with only partially relevant studies on food composition and consumer perceptions. ⁹⁶⁻⁹⁸ Across both Ghana and Kenya, therefore, data specifically on effect of health claims is comparatively sparse. Experience from South Africa, further advanced along nutrition transition, demonstrates potential for coherent programme of investigation. ⁸⁴ Overall, studies are of limited rigour, involving surveys and small-scale qualitative research, but Ghanaian studies benefit from contextual relevance. The need for context sensitive research on the effect of health claims is common theme. Consumer knowledge, use and understanding of nutrition labelling has been investigated extensively in international literature. ⁸⁴ | 14 reviews ⁷⁵⁻⁸⁸ | 7 studies ⁸⁹⁻⁹⁵ | 3 studies ⁹⁶⁻⁹⁸ | 22 papers ⁹⁹⁻¹²⁰ |
| PT3 food composition | Few studies focus on actions taken by governments in Africa to set targets for composition of processed foods. ^{122,123} Regulations aimed at restricting consumption of unhealthy foods, ¹²⁴ have resulted in healthier food choices. ¹²³ Data from Ghana and Kenya on government actions to regulate consumption of unhealthy foods is scant. The FDA of Ghana enforces food labelling on processed pre-packed foods. ⁹⁰ We did not find studies related to enforcement of regulations to restrict consumption of unhealthy foods and beverages in Kenya. Lack of studies on food regulations in most African countries may be partly explained by the lack, until recently, of good quality food composition data, particularly Ghana (2012) and Kenya (2018). ¹²⁵ | 7 reviews ^{122,124,126-130} | 1 study ⁹⁰ | 0 studies | 8 papers ^{123,125,131-136} |
| PT4 food marketing | Evidence supporting PT4 included 28 sources ^{12,13,110,137-160} (mainly global, focused on High Income countries) with two from Ghana ¹⁴⁴⁻¹⁴⁵ and one from Kenya. ¹⁴⁶ In Ghana and Kenya, political will is communicated in national policies, but with little implementation. Systematic reviews relating to the impact of food marketing on children abound; little data exists on the effect of promoting healthy food or healthy foods choices. Mid-range theories suggest pathways between food promotion and food preferences, food choices, food consumption. Few link food promotion and obesity. Very limited evidence from Ghana and Kenya provides background context. Increasing regulatory diversity with industry self-regulatory approaches as a major response, despite accumulating evidence that industry policies are designed to minimise changes to marketing practices with a minimal impact on reducing children's exposure to unhealthy food marketing. | 7 reviews ^{110,137-143} | 2 studies ¹⁴⁴⁻¹⁴⁵ | 1 study ¹⁴⁶ | 18 papers ¹⁴⁷⁻¹⁶⁴ |
| PT5 school food | Literature on issues related to healthy school food environment in Ghana and Kenya is sparse. (Ghana has eight peer reviewed publications, ¹⁶⁵⁻¹⁷³ Kenya nine ¹⁷⁴⁻¹⁸²). Most evidence is limited to food provision in schools in context of food security. Most studies are surveys with small sample sizes, or are qualitative. Need for robust studies to assess the healthiness of school food environments, the effect policies have on these environments and the implications they have for childhood obesity and NCDs in general. | 8 reviews ^{137,143,153,163,167,183-185} | 8 studies ¹⁶⁵⁻¹⁷³ | 9 studies ¹⁷⁵⁻¹⁸² | 7 papers ¹⁸⁶⁻¹⁹³ |

Abbreviations: FDI, foreign direct investment; PT, programme theory; FDA, Food and Drugs Authority; NCDs, non-communicable diseases.



Booth et al (2018)

Complementary Searches include, Review team knowledge, Stakeholder discussion, Iterative searching, Snowball searching Contacting Authors, Citation Searches, Berry picking, (CLUSTER)



1. Context matters
2. Theory-driven
3. Explanation over prediction
4. Embrace complexity
5. Synthesis across disciplines
6. Learning from failures
7. Stakeholder engagement
8. Iterative and flexible
- 9. Transferability of findings:** Focus on mechanisms and contexts in realist synthesis allows for transferable knowledge that can be adapted to different settings and interventions.

Case Study #9a: BAME Access to Social Care and 9b: Pakistani End of Life Care

Ethnic Minorities being looked after by Social Care staff of shared ethnic origin

- **Understanding of culture, customs and community**
- **Concerns about confidentiality**
- **Being taken advantage of**

Community workers/researchers researching/operating within their own community

- **Understanding of culture, customs and community**
- **Concerns about confidentiality/privileged information**

1. Context matters
2. Theory-driven
3. Explanation over prediction
4. Embrace complexity
5. Synthesis across disciplines
6. Learning from failures
7. Stakeholder engagement
8. Iterative and flexible
9. Transferability of findings

10. Policy and practice impact: By providing rich explanations and context-specific insights, realist synthesis can inform evidence-based policymaking and improve programme implementation in real-world settings.

Case Study #10: African Food Systems

- Separate teams in Ghana and Kenya
- Produced overall programme theories and then explored them with country-specific evidence as case studies
- Local researchers acted as the reality check
- Contextualised Food Composition Data are key to how policies operate (e.g. in controlling marketing to children or food labelling, and could explain contextual differences).
- No Ghana-specific Tables since 1975 (Ghana relies on regional West African Food Composition Tables).
- Kenya has recently launched its own locally developed food composition tables.
- Review added pressure to drive for Ghana Food Composition Tables

1. Context matters
2. Theory-driven
3. Explanation over prediction
4. Embrace complexity
5. Synthesis across disciplines
6. Learning from failures
7. Stakeholder engagement
8. Iterative and flexible
9. Transferability of findings
10. Policy and practice impact

Can a realist synthesis be “systematic” without aspiring to be a systematic review?

| Tasks → | | | | | |
|--|---|---|---|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Identifying the review question | Searching for primary studies | Quality appraisal | Extracting the data | Synthesizing the data | Disseminating the findings |
| Map key programme theories | Background familiarization search | | | | |
| Prioritize key theories for investigation | Search for sources of programme theory | | Annotation, note-taking on candidate theories | Prime focus of synthesis selected and formalized | Negotiation with decision-makers on analytic and policy focus |
| Formalize model of subset of hypotheses to be tested | Search for empirical studies to test model | Assessment of relevance of primary inquiry to inform model | Collation of materials from selected primary studies | | |
| | | Assessment of rigour of primary data to test theory | Detailed reportage of evidence from each case study | Absorbing primary materials into developing synthesis | |
| | Search for further empirical studies consequent on revisions to model | Further assessment of rigour as each study enters the synthesis | Differential reportage of evidence from each case study | Juxtaposing, adjudicating, reconciling, consolidating and situating further evidence | Consultation on which emerging lines of inquiry should be followed |
| | | | | Revised model of the complex and inter-related elements of programme theory | Summary theory to initiate process of 'thinking through' future implementation decisions |

Time ↓

Systematic Realist Searches



Increasing Systematicity - six principal elements to a “realist search” (Booth et al, 2018):

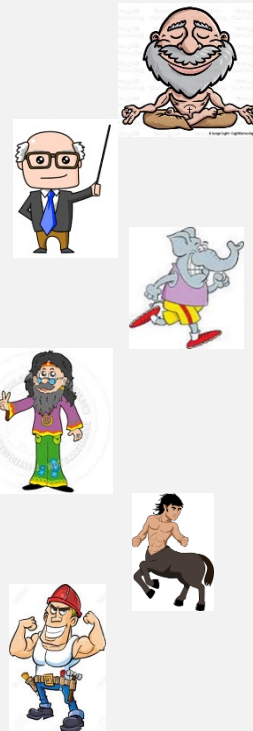
1. Formulate lines of inquiry (Denver and Tranfield, 2009)
2. Explore proposed topic to map previously published research and, if necessary, refine research question (Background Search) (Pawson, 2006b);
3. Identify theories of how an intervention works (Search for Programme Theories) (Pawson, 2006b);
4. Identify empirical evidence for context-mechanisms-outcome configurations to test and refine programme theories (the Search for Empirical Evidence) (Pawson, 2006b);
5. Respond to new information needs as they emerge (Final Search to refine programme theories) (Pawson, 2006b).
6. Document search process in explicit and transparent manner (Wong et al, 2013; Wong et al, 2014).

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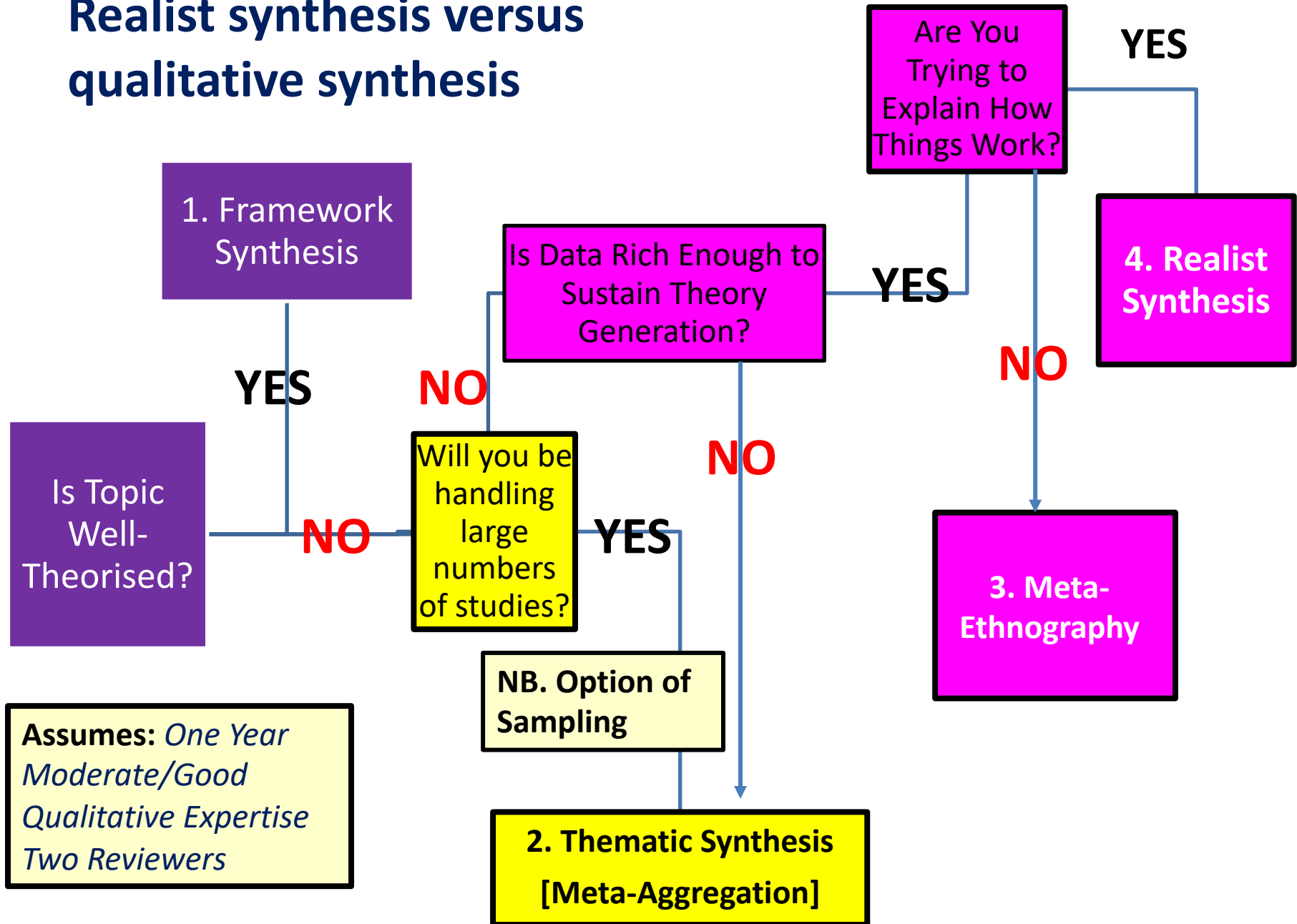
Where does realist review sit within a toolbox of review approaches?

1. Traditional Reviews Family
2. Systematic Reviews Family
3. Rapid Reviews Family
4. Qualitative Systematic Reviews Family
- 5. Mixed Methods Reviews Family**
6. Purpose Specific Review Family



Sutton A, Clowes M, Preston L, Booth A. Meeting the review family: exploring review types and associated information retrieval requirements. *Health Information & Libraries Journal*. 2019 Sep;36(3):202-22.

Realist synthesis versus qualitative synthesis



To what extent is it possible to use systematic approaches to theory generation and searching?

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SAGE researchmethods

Chapter 9 | Scoping and Searching to Support Realist Approaches

In: [Doing Realist Research](#)

BOOK

By: Andrew Booth, Judy Wright & Simon Briscoe

Edited by: Nick Emmel, Joanne Greenhalgh, Ana Manzano, Mark Monaghan & Sonia Dalkin

Published: 2018

DOI: <https://dx.doi.org/10.4135/9781526451729.n10>

Methods: Realist synthesis, Realism, Literature search

[+ More information](#)

Booth, A., Wright, J., & Briscoe, S. (2018). Scoping and searching to support realist approaches. *Doing realist research*. London: Sage, 147-166.

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REVIEW

The “realist search”: A systematic scoping review of current practice and reporting

Andrew Booth , Simon Briscoe, Judy M. Wright

First published: 12 November 2019 | <https://doi.org/10.1002/jrsm.1386> | Citations: 2

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Booth, A, Briscoe, S, Wright, JM. The “realist search”: A systematic scoping review of current practice and reporting. *Res Syn Meth*. 2020; 11: 14– 35.

<https://doi.org/10.1002/jrsm.1386>

Searching for Theory

Pearl citation = A key paper on an identifiable initiative that acts as a retrieval point for related outputs that may help to explicate theory or understand context

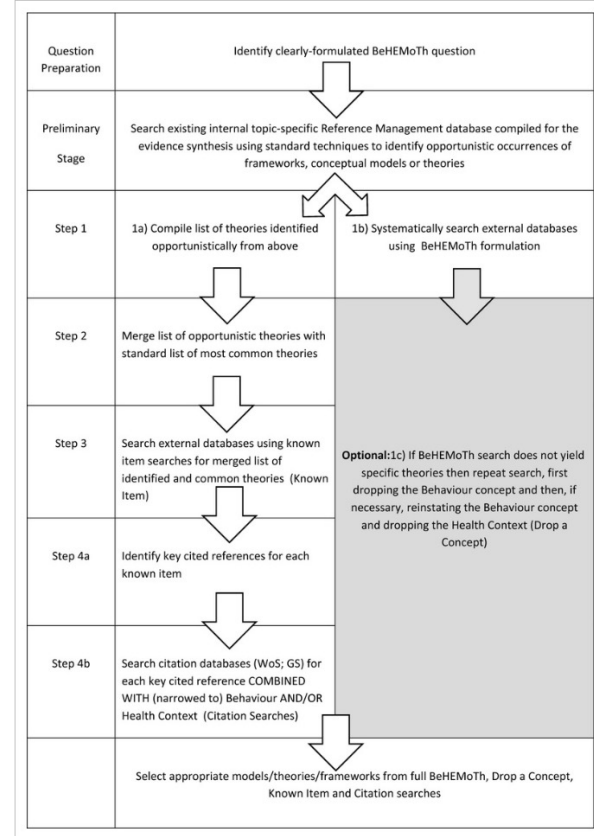
Cluster searching = A systematic attempt using a variety of search techniques, to identify papers or other research outputs that relate to a pearl citation



- Previous literature review
- New bibliographic database search (Web of Science)
- Key informants

- Reference list of pearl citation
- Author search (Web of Science/Google Scholar)
- Citation search (Web of Science/Google Scholar)
- Study name search (Google Scholar)

Aspects of the CLUSTER method used in our study. Adapted from Booth et al, 2013.



Booth, A., Harris, J., Croot, E., et al., 2013. Towards a methodology for cluster searching to provide conceptual and contextual “richness” for systematic reviews of complex interventions: case study (CLUSTER). BMC medical research methodology, 13, pp.1-14.

Booth A, Carroll C. Systematic searching for theory to inform systematic reviews: is it feasible? Is it desirable?. Health Information & Libraries Journal. 2015 Sep;32(3):220-35.

So why am I not yet a convert?

1. Terminology is a barrier e.g. “C-M-O Configurations” (cp. IF-THEN-LEADING TO)
2. Methods are (still) poorly described
3. Findings may end up as “Motherhood and Apple Pie” or “Special Subject the Bleedin’ Obvious” (Fawlty, B 1975) e.g. “Trust”
4. Realist Syntheses often only explore qualitative research
5. Relative advantage over Qualitative Evidence Synthesis is unproven
6. Realist Synthesis may offer inferior way of integrating quantitative and qualitative data
7. No such thing as a rapid realist synthesis! (One done badly?) and, above all
8. Still a sense of magicking out of a hat!

And finally...

IF you assemble a multi-disciplinary team and stakeholders with realist expertise and have procedures for developing and prioritising programme theories and realist methods offer identifiable relative advantages over other review alternatives THEN you can undertake a realist synthesis LEADING TO you delivering an insightful interpretation within time and resource limitations.



Questions?

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