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Social Interventions Research & Evaluation Network

Methods Conversations

Today’s speakers

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Methods Conversations

- Speakers aim to reserve 15-20 minutes to respond to questions after their presentation.
- Please keep yourself muted throughout the presentation portion of the event.
- Use the chat function for questions. Speakers may ask you to unmute to restate or clarify your question aloud during the discussion.
- This webinar will be recorded. The recording will be available on the SIREN website and sent to participants via email.
- Share your ideas for future ***Methods Conversations*** topics via siren@ucsf.edu.

Realist Evaluation in Social Care Research

SIREN Methods Conversations Series

April 2023

Suzanne Morrissey & Arwen Bunce

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A driving force for health equity

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Why Realist Evaluation?

Realism is a theory-driven approach to evaluation:

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- Positioned between positivism and constructivism with an emphasis on context as impacting outcomes
- Uses theory to understand reality (reality assumed to exist independent of our knowledge and beliefs)
- Both real-world data and extant scholarship necessary to understand how the world works and changes

Realist Evaluation & Methods Neutrality

- Realism is an approach to evaluation, <u>not</u> a method
- Agnostic to methodology
- Usually mixed methods, often qualitative-forward

Realism and Evaluation Studies: Generative Explanations

- Distinguishing realist evaluation
  - ✓ Approach to understanding causality
  - ✓ Search for underlying mechanisms

- Outcomes occur depending on the "reasoning" of actors who are exposed to intervention resources or opportunities

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In realist evaluation we ask:

How and **why** a program/intervention does or does not work, **for whom** and **under what circumstances**.

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Theories in Action

- Interventions are seen as *theories in action*
- Intervention outcomes are caused by the activation of mechanisms within certain contexts
- Multiple and variable theories are “tried on” to explain the complex interactions of context, program features, and social actors – **theories that *approximate* reality**
- Approximations because out of the infinite contextual factors that may affect why a program does or doesn’t work, only some rise to explanatory value

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Being a realist detective

Aim: go deeper than other approaches by hypothesizing what is going on underneath the observable (to the "real") → test the hypotheses → repeat (and repeat, and repeat).

There is more to reality than that which is experienced.

Goal: Establish a causal link (generative mechanism) between the intervention and an observed outcome.

How does one do this?

Develop, then test, CMO configurations (aka propositions, hypotheses, educated guesses).

CONTEXT (C): broad conditions into which an intervention is introduced

MECHANISM (M): resources and reasonings that will achieve change

OUTCOME (O): Intended & unintended changes resulting from the intervention

CMO configurations are intended to deliver granular explanations of what works, for whom, in what context.

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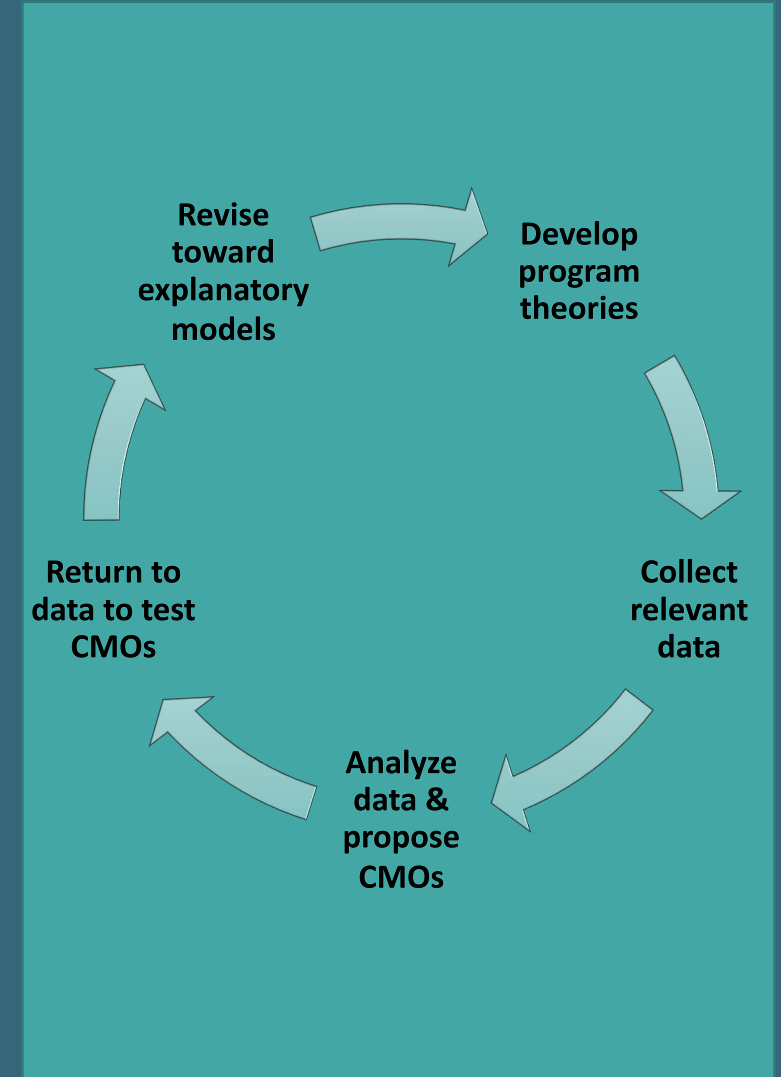
In a perfect world:

- Formulate initial program theories
- Collect data, test & refine theories, create CMOs
- Use data and literature to continue theory building and refinement
- Discard the initial theories that do not approximate reality
- Create explanatory theories



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In our work, we have ended up at "realist-informed"

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ASCEND: ApproacheS to CHC ImplEmeNtation of SDH Data Collection and Action

Study Aims:

- **Aim 1.** Mixed methods formative evaluation: social determinants of health (SDH) data collection, OCHIN Community Health Centers (CHCs)
- **Aim 2.** Pragmatic, stepped-wedge, cluster-randomized trial in 30 CHCs. Tests an intensive implementation support package (the SDH Action Plan)
- **Aim 3.** ***Realist evaluation*** of whether / how the SDH Action Plan improves SDH data collection, DM risk management

Realist-informed approach (ASCEND: 1st try)

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1) Coding as context, mechanism, outcome → that didn't work!
2) Clinic summaries based on realist concepts → start of analysis
3) Year 4 review & discussion of summaries → identified mechanisms → explanatory theories
4) Tested, refined theories through engagement with raw data
5) Returned to literature to confirm explanatory theories → Normalization Process Theory

In hindsight: Realist approach very useful in explaining why & how intervention worked as it did, for whom, in what circumstances. But, since we did not identify the mechanisms / explanatory theories while work was ongoing, missed opportunity to engage with participants to refine and sharpen our understanding of the causal mechanisms.

Example: Materiality of workbooks (can) facilitate collaboration

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Theory

The workbooks **ground discussion** in a purposeful way → create **shared sense of purpose** & **direction** among staff with varied clinic roles, perspectives → staff **engage with ideas** & **collaborative decision-making** around goals & process → sets stage for implementation & potential sustainment of social risk screening.

"I found it to be really helpful and interesting that we worked on it collaboratively to see each person on the team's perspective and talk out just really where we are at … To put it all on paper and look at it …"

"What I liked about this it was kind of like an anchoring tool when we brought the team together that it provided opportunities for discussion. And it wasn't like right or wrong answers. It was just an opportunity for us to discuss as a group and kind of see where we landed."

Only some clinics used workbooks this way

Yes: pre-existing culture of cooperative decision-making & workflow development.

No: i) champion with enough authority & buy-in to move work forward on her own, and/or

ii) SDH screening not seen as enough of a priority to dedicate 'thinking time' from multiple staff.

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COHERE: COntextualized care in cHcs' Electronic health REcords

Study Aims:

- **Aim 1.** Develop EHR-based Clinical Decision Support (CDS) tools that offer social risk-informed care plan adaptations
- **Aim 2.** Test whether EHR-embedded CDS enhances social risk-informed care provision in Community Health Centers.
- **Aim 3.** Assess care team perceptions of both the tools' usability and impacts on care quality and patient provider interactions.

Realist approach to tool revision (COHERE)

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1) Rapid analysis of stakeholder data → design & content of pilot EHR tools
2) Piloted in 3 clinics → most tools not viewed as useful
3) Identified tools that were used / appreciated
4) Returned to stakeholder & pilot data with new lens; simultaneously engaged with relevant literature
5) Identified preliminary insights that might explain results
6) Formulated insights as questions to ask providers and staff
7) Refined understanding of underlying mechanisms of action
8) Revised existing tools as possible to meet these parameters; removed the rest

Insights (Tensions)

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1) Tension between need for the EHR tools to facilitate documentation, communication, funding/payment ***vs.*** perceived threat to sense of self as a provider & vision of good care (customized, empathetic, patient-driven). [*CHC Calling*]

2) Tension between desire for these efforts to improve understanding and therefore patient health ***vs.*** worry that collecting and documenting this information will lead to stigmatization and biased care. [*Care Implications*]

3) Tension between desire for a deep understanding of a patient's life ***vs.*** information overload / data as noise (and, how do we present this information in a way that is useful across different staff roles?). [*Data Clues*]

Using these insights

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Original Hypothesis

EHR tools expected to produce clinical practice change by *suggesting* possible care plan adjustments for patients with social risks

Insights-informed Hypothesis

EHR tools useful when they facilitate *documentation* and *communication* of patient social risks in ways that:

- Give CHC staff pragmatic 'clues' about patient needs
- Enable team to communicate and collaborate around patient care plan adjustments
- Facilitate provider-patient shared decision-making about needed adjustments
- Honor provider and care team experience & commitment

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Applied to existing pilot tool: 1-click addition of Z-codes to the problem list

Z codes as flexible cue/clue that can represent an item for action and lends itself to distribution of work [*Data Clues*]

Perceived as objective/nonjudgmental because standardized at the federal level. Avoids problematic presentation of patient that can bias future care. [*Care Implications*]

Ease and consistency of documentation [*CHC Calling*]

Can be used for multiple purposes [*CHC Calling; Data Clues*]

- $ (through ACO risk scoring)
- population-level data for advocacy
- short-hand communication tool within the care team and affiliated providers

CREATE: soCial Risk convErsations And paTient-clinician rElationship

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Aim 1: Conduct a multi-method, comparative case study to understand and characterize approaches to SDH screening and the impact of those approaches on patient-clinician/care team relationship (PCR+).

Aim 2: Engage clinic stakeholders in a human-centered design process to map the processes and mechanisms through which SDH screening impacts PCR+ and then co-design an intervention.

Aim 3: Pilot test and evaluate the intervention co-designed by clinic stakeholders to assess which mechanisms work for whom and in what circumstances.

We will combine a Realist Approach and the NIMHD Research Framework for a multidimensional lens on the ***mechanisms*** *through which SDH screening can evolve into meaningful conversations that optimize PCR+ and improve patient outcomes.*

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Additional Resources

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Thank You

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- Next conversation coming September 2023
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