Applying Theory in Implementation Science for Optimal and Equitable Outcomes

Laura J. Damschroder
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Generalized Implementation Theory

Evidence-based Innovation

Implementation PROCESS

Implementation Outcomes

Innovation Outcomes

Individuals

Inner Setting

Outer Setting

CONTEXT
Equity Research

Disclaimer: I am not an expert in equity

Goals:
• Reflections from a non-expert
• Amplify true experts in equity

The potential danger of “race neutral” theories and frameworks like the CFIR
• Failing to measure what matters
• Failing to capture barriers related to racist structures and systems
• Losing opportunities to address discrimination and inequities
• Perpetuating and deepening existing discrimination

Theory-building Implementation Science

Continuous dialogue between theory and empirical findings

CFIR-U2 → Updated CFIR based on user feedback
- Findings
- Experience
- Advancing theory

Conceptualizing outcomes for use with the Consolidated Framework for Implementation Research (CFIR): the CFIR Outcomes Addendum

Laura J. Damschroder*, Caitlin M. Reardon, Marilla A. Opra Widerquist and Julie Lowery
Innovation Outcomes

Indicators of innovation success or failure: Innovation impact on key constituents

Equitable Population Impact

School Outcomes Community Partnerships

Efficiency Return-on-investment Political Capital

Wellness Connectedness

IMPLEMENTATION Outcomes

ANTICIPATED Implementation Outcomes
Indicators of anticipated implementation success or failure

ACTUAL Implementation Outcomes
Indicators of actual implementation success or failure

Innovation Outcomes
Indicators of innovation success or failure:
- innovation impact on key constituents

Equitable Population Impact

Innovation Determinants
- Innovation Deliverers
- Key Decision-Makers
- Innovation Recipients

Context

Innovation

Implementation Strategies

Fidelity

= Value
Implementation Determinants

Anticipated Implementation Outcomes
Indicators of anticipated implementation success or failure

Actual Implementation Outcomes
Indicators of actual implementation success or failure

Innovation Outcomes
Indicators of innovation success or failure: innovation impact on key constituents

Equitable Population Impact

CFIR Implementation Determinants
Research Question

Race-neutral Question:
What are barriers and facilitators (determinants) to implementation?

Public Health Critical Race Praxis (PHCRP) as Race(ism)-Conscious Lens:
How does structural racism* interact with implementation and innovation outcomes?

* "...the totality of ways in which systems, social forces, ideologies, processes, and institutions generate and reinforce inequities among racial and ethnic groups"

Innovation Domain

Perceptions of the Innovation itself, e.g., a new clinical treatment, educational program, or city service.

Define the Innovation: e.g.,
- innovation type
- innovation components
  - core versus adaptable components
Interpretive Approach to Context Assessment

Construct Stem:
The degree to which [insert construct definition]
  • Qualitative Assessments
  • Quantitative Assessments

Example
“Innovation Evidence-Base”
The degree to which…
the innovation has robust evidence supporting its effectiveness
Innovation Domain

• Constructs
  o Innovation Source
  o Innovation Evidence-base
  o Innovation Relative Advantage
  o Innovation Adaptability
  o Innovation Trialability
  o Innovation Complexity
  o Innovation Design
  o Innovation Cost
What is the “thing” being implemented? (e.g., innovation type, innovation components (including core versus adaptable components), and distinguish the innovation (activities that continue when implementation is complete) from the implementation process (activities that end after implementation is complete)).

Project TRUST: Increase school “connectedness” \(\rightarrow\) better student outcomes
- Teacher Professional Development
- School uptake of Connectedness
  - Youth
  - Parents
- Parents every step of the way

What are perceptions about its properties?
Race(ism) Lens: What is the nature of within and between-group heterogeneity? E.g., differences in willingness to consider role of structural racism in potential uptake?

INDIVIDUALS DOMAIN

Perceptions about Individuals, including their roles and characteristics.

• Roles
  ✓ Leaders
    • High-level (executive, VP)
    • Mid-level (managers, supervisors)
  ✓ Opinion Leaders
  ✓ Implementation Facilitators
  ✓ Implementation Leads
  ✓ Implementation Team Members
  ✓ Other Implementation Support
  ✓ Innovation Deliverers
  ✓ Innovation Recipients

Deliverers & Recipients
Perceptions of individuals who have influence and/or power over the outcome of implementation efforts about the **roles** and **characteristics** of individuals (*including their own role and characteristics*)

- **Characteristics**
  - **Need**
    - Deficits related to survival, well-being, or personal fulfillment
  - **Capability**
    - Individual has the necessary intrapersonal competence, knowledge, and skills to fulfill the role.
  - **Opportunity**
    - Availability of individual(s), allocation of time, assignment of authority and other factors conferred to the [Role], needed to fulfill the [Role].
  - **Motivation**
    - Individual is committed to fulfilling role.
Guiding Questions

Who are the individuals most likely to influence or have authority over implementation?
Who will deliver the Innovation?

<table>
<thead>
<tr>
<th>Inner Setting:</th>
<th>School Implementation Leads</th>
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</thead>
<tbody>
<tr>
<td>Inner Setting:</td>
<td>School Principals</td>
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<tr>
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<td>Youth, Parents</td>
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<td>Outer Setting:</td>
<td>Equity-oriented Leaders</td>
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Individual Roles & Characteristics

<table>
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<tr>
<th>Construct</th>
<th>Questions/Findings</th>
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<tr>
<td><strong>School Principals:</strong></td>
<td></td>
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<tr>
<td><strong>Opportunity</strong></td>
<td></td>
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<tr>
<td>Race-neutral</td>
<td>What was capacity to implement TRUST</td>
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<tr>
<td>Race(ism) Lens</td>
<td>How was Principal agency increased or undermined?</td>
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<tr>
<td></td>
<td>• Lack of agency used as an excuse to not act</td>
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<tr>
<td></td>
<td>• Blamed unions, mandated training, etc</td>
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<tr>
<td></td>
<td>• Disenfranchised leaders → lower Relational Connections, Access to Information &amp; Knowledge</td>
</tr>
<tr>
<td><strong>Inner Setting</strong></td>
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<tr>
<td><strong>Leaders: Capability</strong></td>
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<tr>
<td>Race-neutral</td>
<td>What was capability to implement TRUST</td>
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<tr>
<td>Race(ism) Lens</td>
<td>What was comfort level in talking about race/racism?</td>
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<tr>
<td></td>
<td>• Discomfort in addressing structural racism (role of the school) led to undermining efforts</td>
</tr>
</tbody>
</table>
INNER SETTING DOMAIN

DEFINITION
Perceptions of the Inner Setting, the setting in which the innovation is implemented

- e.g., hospital, school, city.
- There may be multiple Inner Settings and/or multiple levels within the Inner Setting, e.g., unit, classroom, team.
INNER SETTING DOMAIN

- **Persistent general setting characteristics**
  - Structural Characteristics
  - Culture
  - Relational Connections
  - Communications

- **Specific to implementation & delivery**
  - Tension for Change
  - Compatibility
  - Relative Priority
  - Mission Alignment
  - Available Resources
  - Access to Knowledge & Information
### Guiding Questions

#### Innovation

- **Project TRUST**

#### Individuals

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#### Inner Setting

**Where** will implementation occur? From where will the Innovation be delivered?

- **Middle and High Schools in Minneapolis School District**
## Inner Setting

### Construct | Questions/Findings
---|---
**Relative Priority**  
Race-neutral  
- How important was TRUST in comparison with other initiatives?

**Race(ism) Lens**  
- Which priorities was TRUST compared to?  
  - Racialized aspect to perceived feasibility → student suggestions ignored

**Culture**  
Race-neutral  
- School culture regarding student and parent voice  
  - Openness to change vs resistance to change

**Race(ism) Lens**  
- Does culture encourage self-reflection about one’s own biases?  
  - Organizational history of inability to address issues of racism led to student input not being taken seriously
OUTER SETTING DOMAIN

DEFINITION
Perceptions of the Outer Setting, the setting in which the Inner Setting exists.

- e.g., hospital system, school district, state.
- There may be multiple Outer Settings and/or multiple levels within the Outer Setting (e.g., community, system, state)
OUTER SETTING DOMAIN

- Critical Incidents
- Local Attitudes
- Local Conditions
- Partnerships & Connections
- Policies & Laws
- Financing
- External Pressures
  - Societal Pressure
  - Market Pressure
  - Performance Measurement Pressure
Guiding Questions

Innovation: Project TRUST

Inner Setting:
- School Implementation Leads
- School Principals
- Teachers

Outer Setting:
- Youth, Parents
- Equity-oriented Leaders

Inner Setting: Middle and High Schools in Minneapolis School District

Outer Setting: Where does the Outer Setting begin?
- Minneapolis School District, Minneapolis MN
### Outer Setting

<table>
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| Local Conditions        | • Majority of urban schools in Minnesota are BIPOC  
                          • Minnesota ranks last/near last in on-time high school graduation for BIPOC students                                                        |
| Partnerships & Connections |                                                                                                                                                  |
| Race-neutral            | Degree to which school leadership is networked with other schools?  
                          • Higher engagement when leaders were of the same race/ethnicity                                                                               |
| Race(ism) Lens          | How do race relations/racism create barriers to connections?  
                          • Degree of connection highly racialized  
                          • Shared set of competencies and language for discussing racism                                                                                   |
IMPLEMENTATION PROCESS DOMAIN

DEFINITION
The Implementation Process, i.e., the activities and strategies used to implement the innovation.
IMPLEMENTATION PROCESS DOMAIN

- Teaming
- Assessing Needs
  - Deliverers
  - Recipients
- Assessing Context
- Planning
  - Setting Goals
  - Choosing Strategies
IMPLEMENTATION PROCESS DOMAIN

- Engaging
  - Deliverers
  - Recipients
- Doing
- Adapting
- Reflecting & Evaluating
Guiding Questions

**Innovation**
- **Project TRUST**

**Individuals**
- **Inner Setting:** School Implementation Leads
- **Inner Setting:** School Principals
- **Inner Setting:** Teachers
- **Outer Setting:** Youth, Parents
- **Outer Setting:** Equity-oriented Leaders

**Inner Setting**
- **Middle and High Schools in Minneapolis School District**

**Outer Setting**
- **Where** does the Outer Setting begin?
- **Minneapolis School District, Minneapolis MN**

**Process**
- To what extent do [Roles] do the necessary **actions** for sustained implementation?
- **Community-based participation where youth and parent are involved at every step**
Assessing Context: 5 CFIR Domains
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<tr>
<td>Reflecting &amp; Evaluating</td>
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<tr>
<td>Race-neutral</td>
<td>Degree to which teams debriefed to promote learning and improvements</td>
</tr>
<tr>
<td>Race(ism) Lens</td>
<td>How are processes of racism made visible in data interpretations and dissemination of findings?</td>
</tr>
<tr>
<td></td>
<td>• Data used to selectively support their priorities and discount student/parent input</td>
</tr>
<tr>
<td></td>
<td>• Inaccurate data used to portray a different story</td>
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Guiding Questions

Innovation: What is the “thing” being implemented? What are perceptions about its properties?

Inner Setting: Where will implementation occur? From where will the Innovation be delivered?

Individuals: Who are the individuals most likely to influence or have authority over implementation? Who will deliver the Innovation?

Outer Setting: Where does the Outer Setting begin?

Process: To what extent do [Roles] do the actions necessary for sustained implementation?
Innovation

Implementation Strategies

Context

FIDELITY

ADAPTATION

= Value

von Thiele Schwarz et al. BMC Health Services Research (2019) 19:868
https://doi.org/10.1186/s12913-019-4668-y
Conceptual framework of equity-focused implementation research for health programs (EquiR)

J. Eslava-Schmialbach,1,2 N. Garzón-Osúela1,2,3, V. Elías1,2, L. Revetí3, N. Tran4 and E. V. Langlois5
The health equity implementation framework: proposal and preliminary study of hepatitis C virus treatment

Eva N. Woodward, Monica M. Matthieu, Uchenna S. Uchendu, Shari Rogal, and JoAnn E. Kirchner
A Call for Sustained Commitment to Equity

Equity Tourism

“...the practice of investigators—without prior experience or commitment to health equity research—parachuting into the field in response to ...increases in public interest and resources...reactionary rather than prospective...seek[ing] to “retrofit” or adapt existing structures and research practices ... rather than build the necessary transformative infrastructure required for sustainable health justice.”

4 Principles to Move from Tourist to Community Member

1. Equity is fundamental
   a. Who is represented in this study? Nothing about me without me
   b. How can this work cause harm?
2. Positionality as Healthcare Praxis
3. Collaboration
4. Sustainability in Urgency
Thank You

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