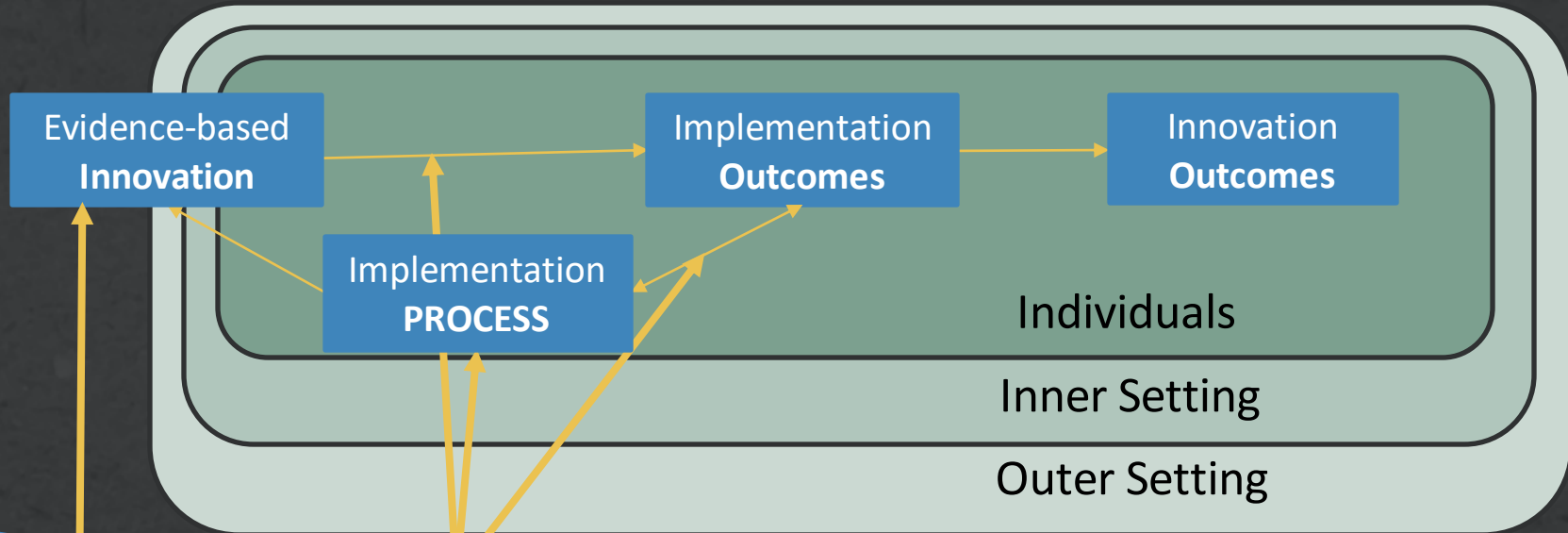


Applying Theory in Implementation Science for Optimal and Equitable Outcomes

Laura J. Damschroder
28 September 2022



Generalized Implementation Theory



C O N T E X T

Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres

ELSEVIER

Clarity out of chaos: Use of theory in implementation research

Laura J. Damschroder

VA Center for Clinical Management Research, Am...

DOI: [10.1016/j.psychres.2019.06.036](https://doi.org/10.1016/j.psychres.2019.06.036)

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

Allen et al (Sr Author: Brooke Cunningham). Applying a Race(ism)-Conscious Adaptation of the CFIR Framework to Understand Implementation of a School-based Equity-oriented Intervention. *Ethnicity & Disease*. 2021. <https://doi.org/10.18865/ed.31.S1.375>

APPLYING A RACE(ISM)-CONSCIOUS ADAPTATION
OF THE CFIR FRAMEWORK TO UNDERSTAND
IMPLEMENTATION OF A SCHOOL-BASED
EQUITY-ORIENTED INTERVENTION

Michele Allen, MD, MS¹; April Wilhelm, MD, MPH¹;
Luis Enrique Ortega, MEd²; Shannon Pergament, MPH, MSW²;
Nicole Bates, MEd³; Brooke Cunningham, MD, PhD¹

Theory-building Implementation Science

Continuous dialogue between theory and empirical findings

CFIR-U2 → Updated CFIR based on user feedback


- Findings
- Experience
- Advancing theory

DEBATE

Open Access

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

ADAPTATION



Innovation

Implementation Strategies

Context



FIDELITY

= Value

Innovation Outcomes

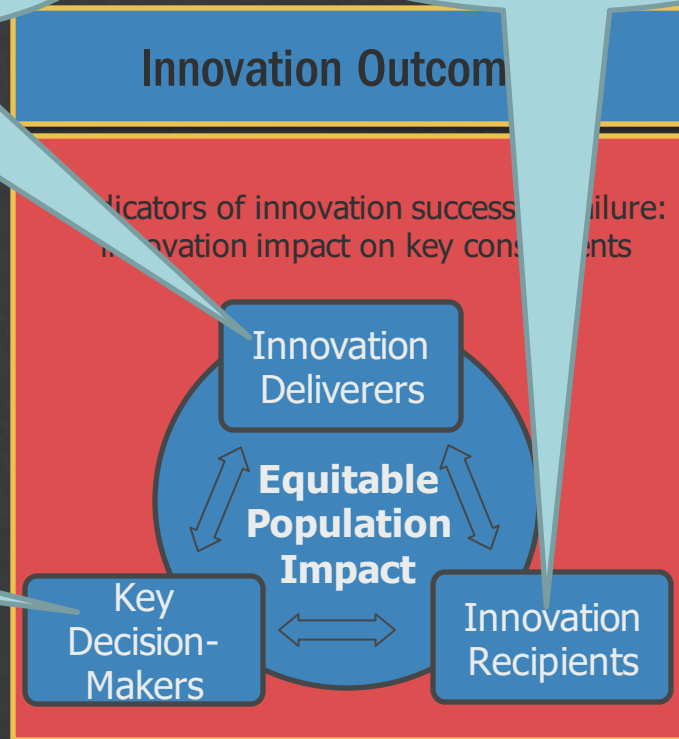
School Outcomes
Community Partnerships

Wellness
Connectedness

APPLYING A RACE(ISM)-CONSCIOUS ADAPTATION
OF THE CFIR FRAMEWORK TO UNDERSTAND
IMPLEMENTATION OF A SCHOOL-BASED
EQUITY-ORIENTED INTERVENTION

Michele Allen, MD, MS¹; April Wilhelm, MD, MPH¹;
Luis Enrique Ortega, MEd²; Shannon Pergament, MPH, MSW²;
Nicole Bates, MEd³; Brooke Cunningham, MD, PhD⁴

Efficiency
Return-on-investment
Political Capital



IMPLEMENTATION Outcomes



Implementation Outcomes

Innovation Outcomes

ANTICIPATED
Implementation
Outcomes

ACTUAL
Implementation
Outcomes

Innovation Outcomes

Indicators of anticipated
implementation success or
failure

Indicators of actual
implementation success or
failure

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

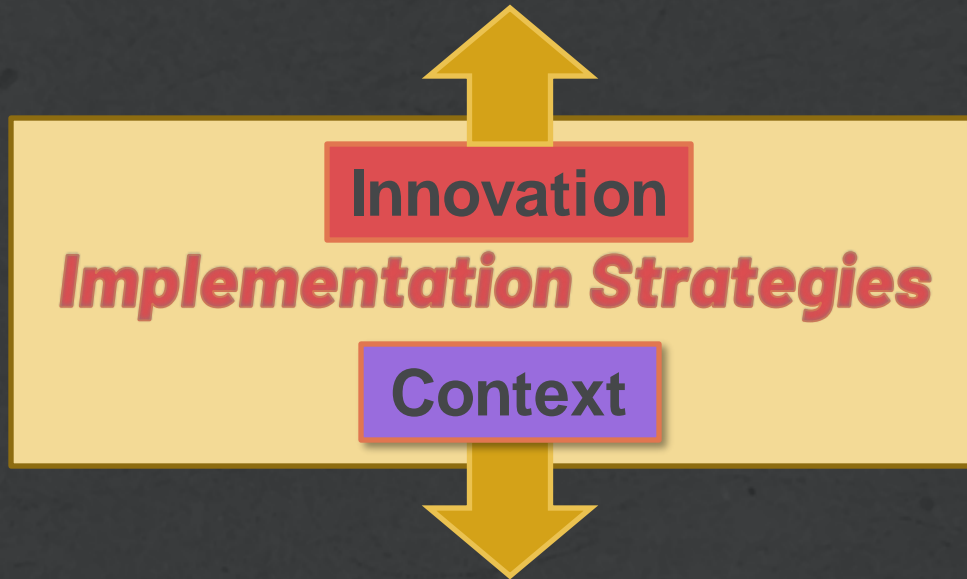
Innovation
Deliverers

Equitable
Population
Impact

Key
Decision-
Makers

Innovation
Recipients

ADAPTATION



= Value

FIDELITY

Implementation Determinants

CFIR Implementation Determinants

Innovation Determinants

Implementation Outcomes

Innovation 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

Innovation
Deliverers

**Equitable
Population
Impact**

Key
Decision-
Makers

Innovation
Recipients

CFIR Implementation Determinants

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"

CFIR First Published in 2009

Implementation Science



CFIR-U2 Under review:

<https://www.researchsquare.com/article/rs-1581880/v1>

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

- Innovation Source
- Innovation Evidence-base
- Innovation Relative Advantage
- Innovation Adaptability
- Innovation Trialability
- Innovation Complexity
- Innovation Design
- Innovation Cost

Guiding Questions

Innovation

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” → better student outcomes

- Teacher Professional Development
- School uptake of Connectedness
 - Youth
 - Parents
- Parents every step of the way

Allen et al (Sr Author: Brooke Cunningham). Applying a Race(ism)-Conscious Adaptation of the CFIR Framework to Understand Implementation of a School-based Equity-oriented Intervention. *Ethnicity & Disease*. 2021. <https://doi.org/10.18865/ed.31.S1.375>

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.



**Deliverers &
Recipients**

• 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

INDIVIDUALS DOMAIN

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

Innovation

Project TRUST

Individuals

Who are the **individuals** most likely to **influence** or have **authority** over implementation?

Who will **deliver** the Innovation?

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

Individual Roles & Characteristics

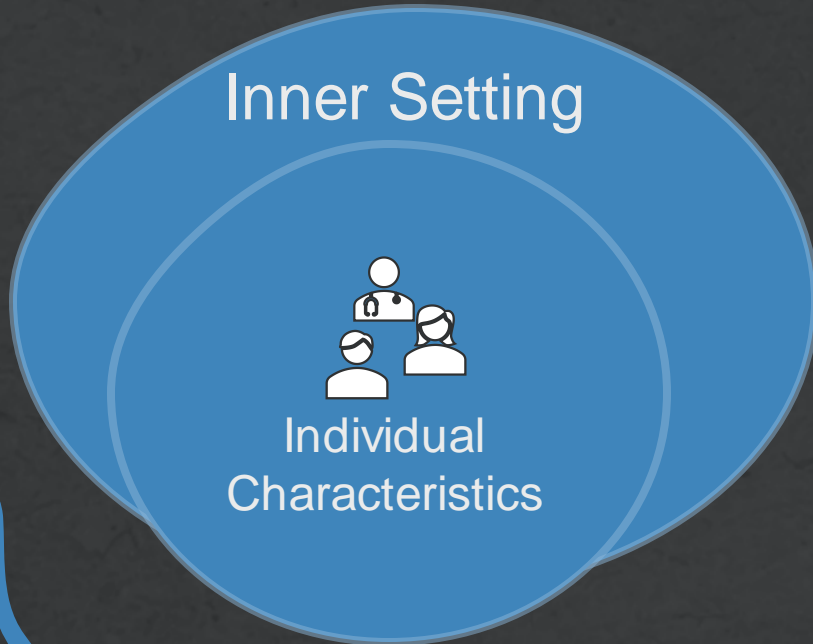
Construct	Questions/Findings
School Principals: Opportunity	
Race-neutral	What was capacity to implement TRUST
Race(ism) Lens	How was Principal agency increased or undermined? <ul style="list-style-type: none"> Lack of agency used as an excuse to not act <ul style="list-style-type: none"> Blamed unions, mandated training, etc Disenfranchised leaders → lower Relational Connections, Access to Information & Knowledge
Inner Setting Leaders: Capability	
Race-neutral	What was capability to implement TRUST
Race(ism) Lens	What was comfort level in talking about race/racism? <ul style="list-style-type: none"> Discomfort in addressing structural racism (role of the school) led to undermining efforts

INNER SETTING DOMAIN

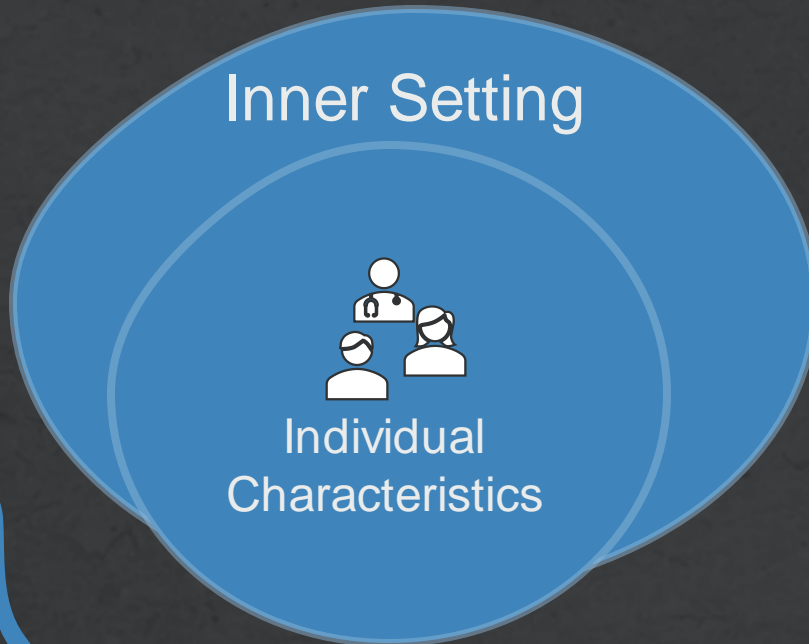
DEFINITION

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

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

Inner Setting

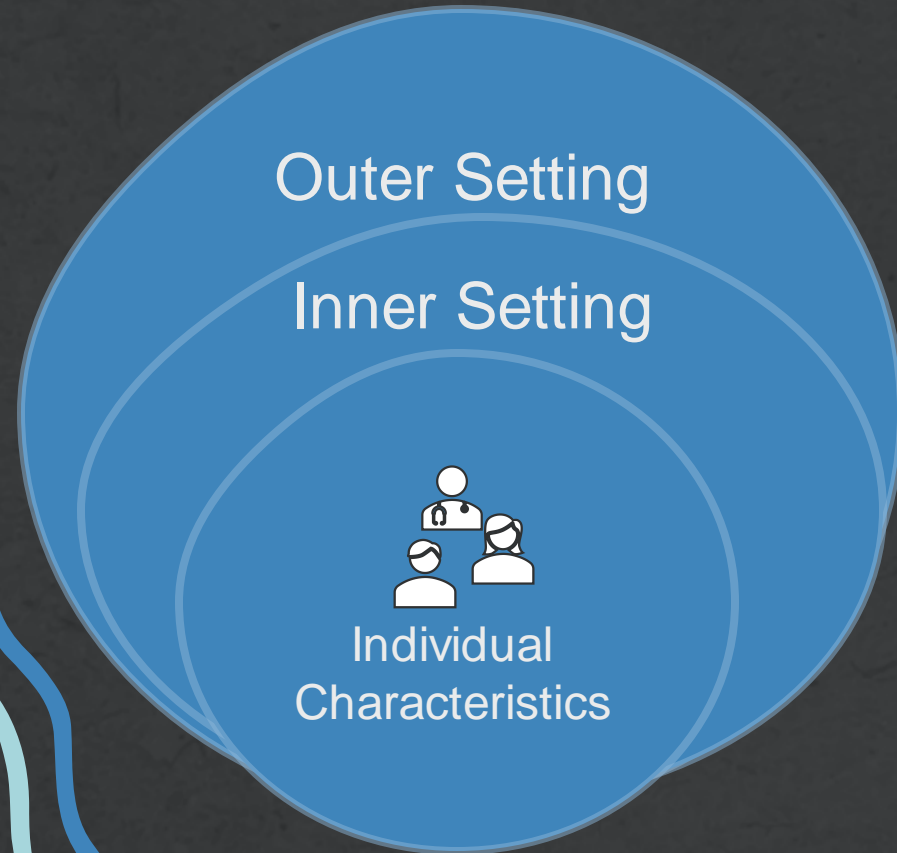
Where will implementation occur? From where will the Innovation be delivered?

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? <ul style="list-style-type: none">Racialized aspect to perceived feasibility → student suggestions ignored
Culture	
Race-neutral	School culture regarding student and parent voice <ul style="list-style-type: none">Openness to change vs resistance to change
Race(ism) Lens	Does culture encourage self-reflection about one's own biases? <ul style="list-style-type: none">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

Outer Setting

Inner Setting



Individual
Characteristics

- **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

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?

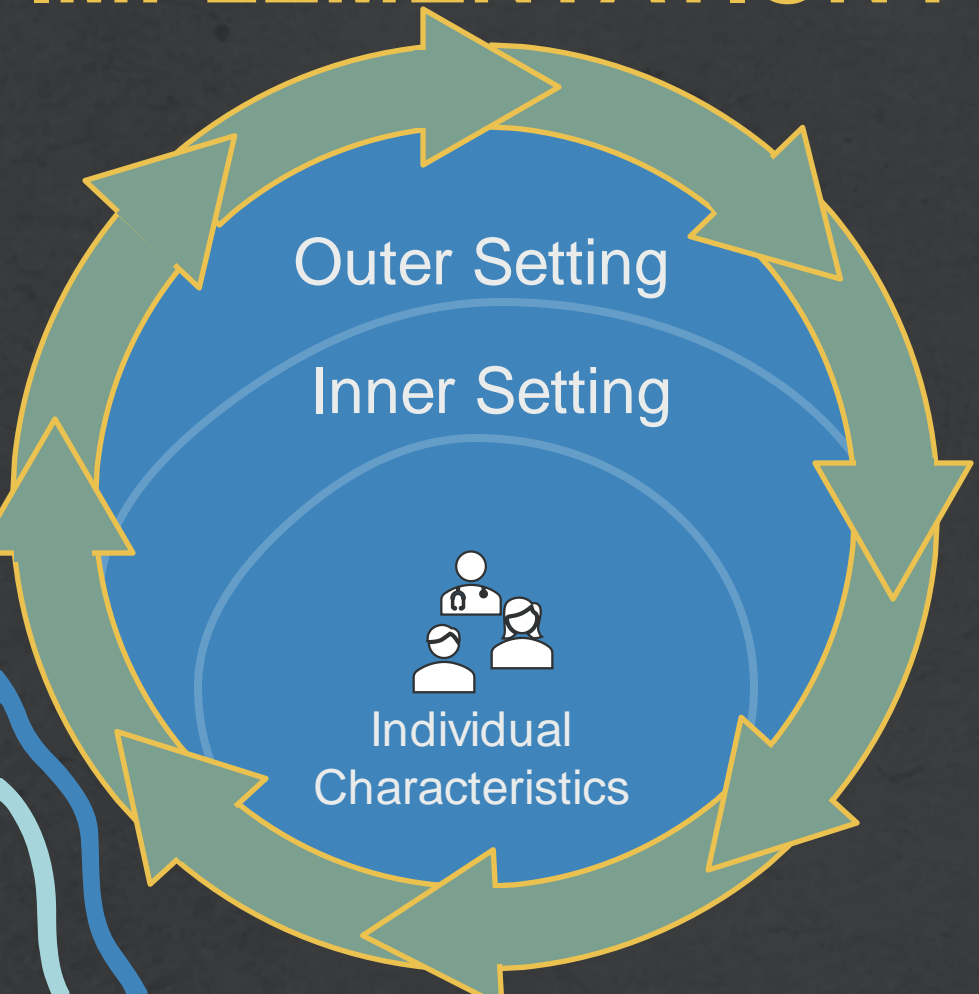
Minneapolis School District, Minneapolis MN

Outer Setting

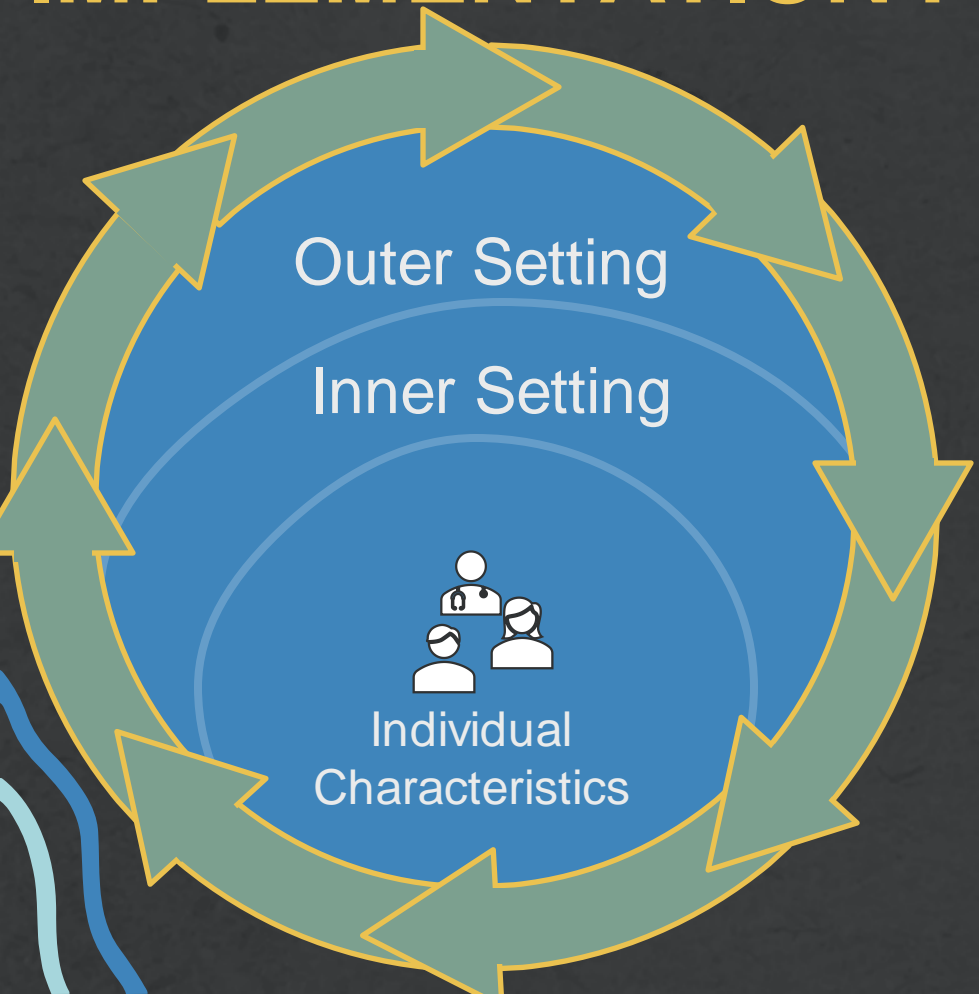
Michele Allen, MD, MS¹; April Wilhelm, MD, MPH¹;
Luis Enrique Ortega, MEd²; Shannon Pergament, MPH, MSW²;
Nicole Bates, MEd³; Brooke Cunningham, MD, PhD¹

Construct	Questions/Findings
Local Conditions	<ul style="list-style-type: none">• 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? <ul style="list-style-type: none">• Higher engagement when leaders were of the same race/ethnicity
Race(ism) Lens	How do race relations/racism create barriers to connections? <ul style="list-style-type: none">• Degree of connection highly racialized• Shared set of competencies and language for discussing racism

IMPLEMENTATION PROCESS DOMAIN



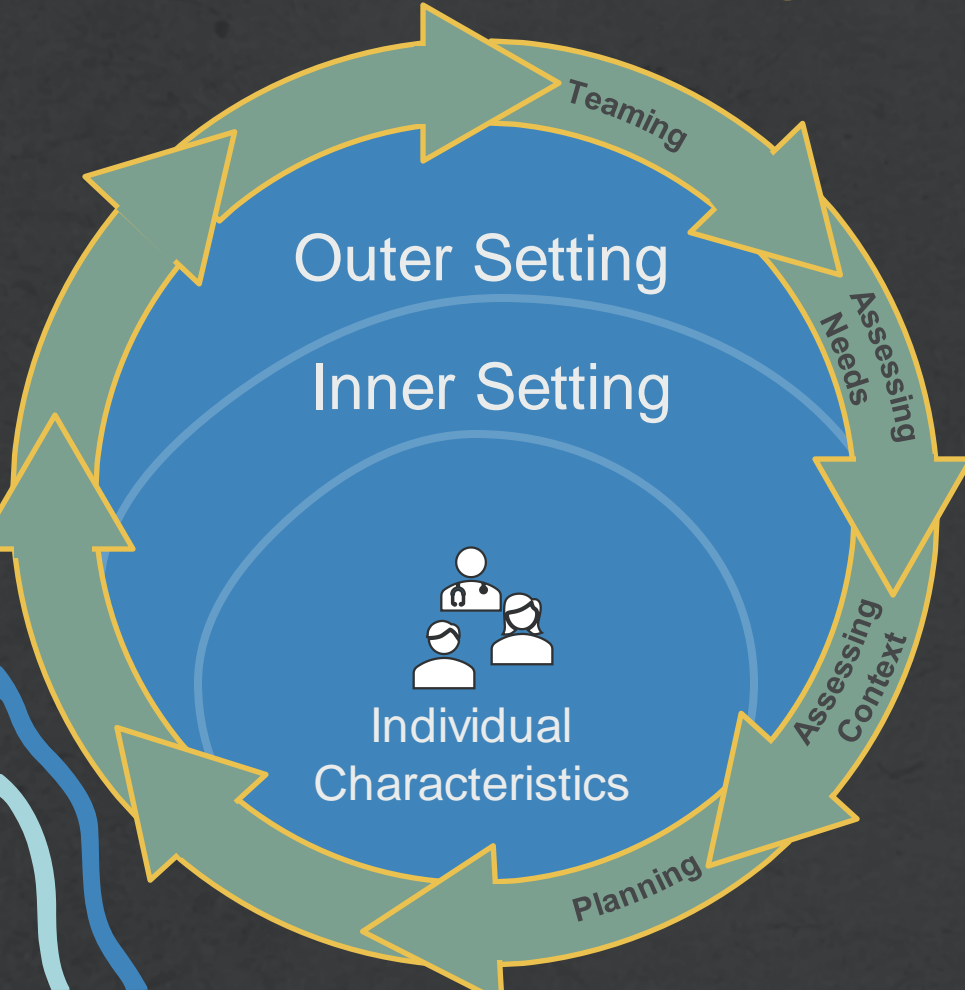
IMPLEMENTATION PROCESS DOMAIN



DEFINITION

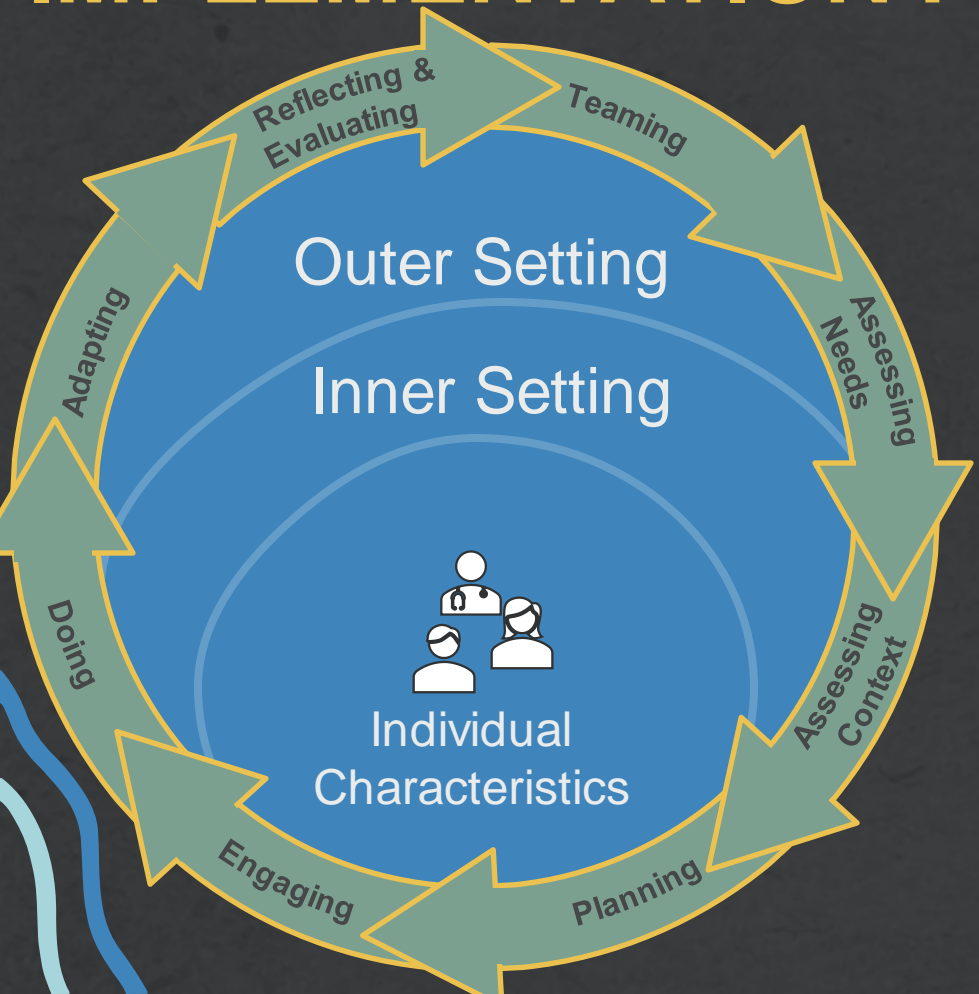
The Implementation Process, i.e., the activities and strategies used to implement the innovation

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?

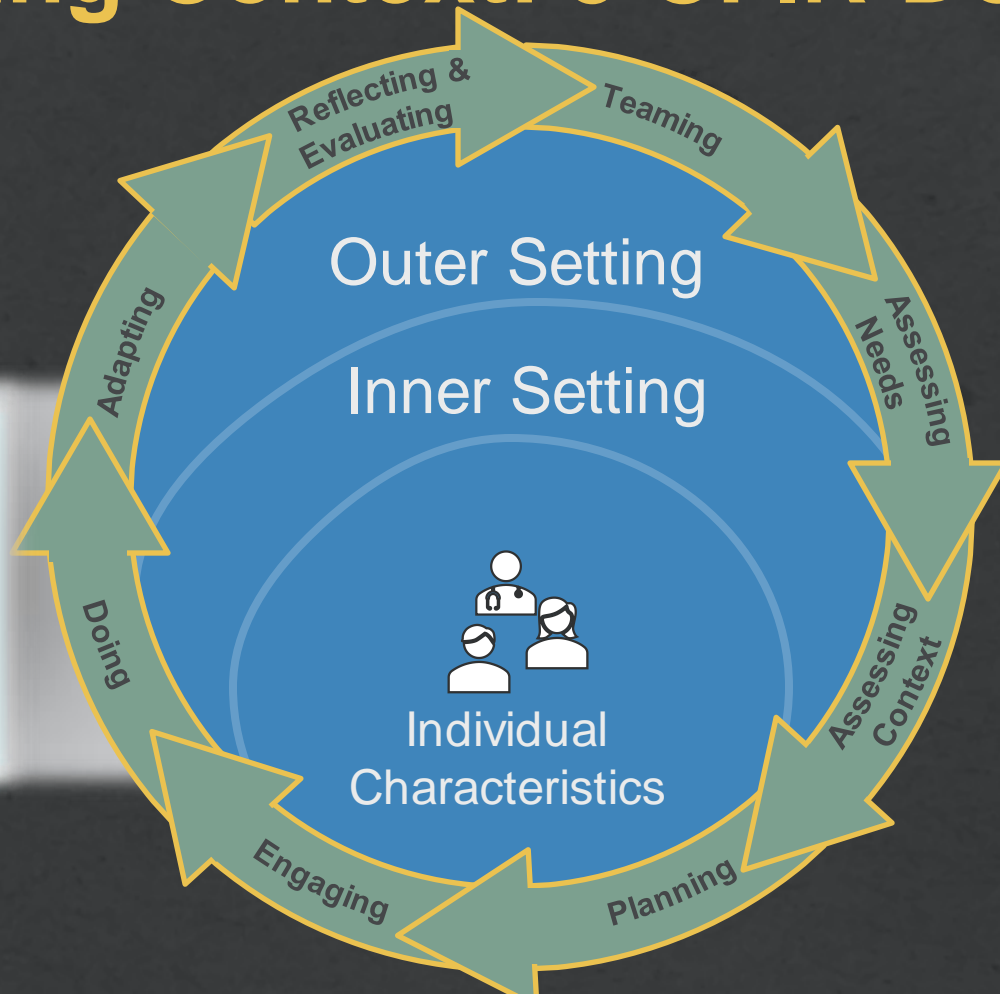
Minneapolis School District, Minneapolis MN

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



APPLYING A RACE(ISM)-CONSCIOUS ADAPTATION
OF THE CFIR FRAMEWORK TO UNDERSTAND
IMPLEMENTATION OF A SCHOOL-BASED
EQUITY-ORIENTED INTERVENTION

Michele Allen, MD, MS¹; April Wilhelm, MD, MPH¹;
Luis Enrique Ortega, MEd²; Shannon Pergament, MPH, MSW²;
Nicole Bates, MEd³; Brooke Cunningham, MD, PhD¹

Implementation Process

Construct	Questions/Findings
Reflecting & Evaluating	
Race-neutral	Degree to which teams debriefed to promote learning and improvements
Race(ism) Lens	How are processes of racism made visible in data interpretations and dissemination of findings? <ul style="list-style-type: none">• Data used to selectively support their priorities and discount student/parent input• Inaccurate data used to portray a different story

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?

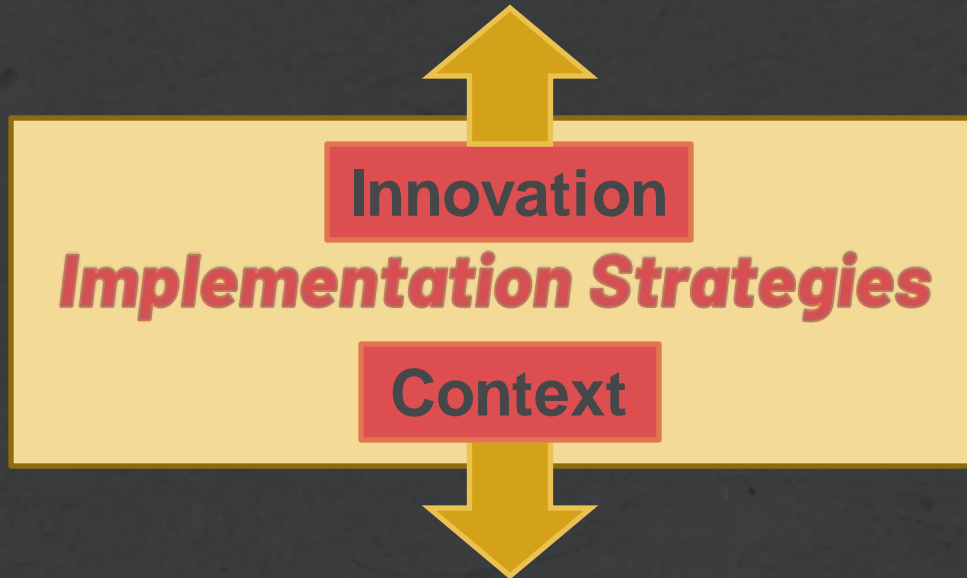
Outer Setting

Where does the Outer Setting begin?

Process

To what extent do [Roles] do the **actions** necessary for sustained implementation?

ADAPTATION



= Value

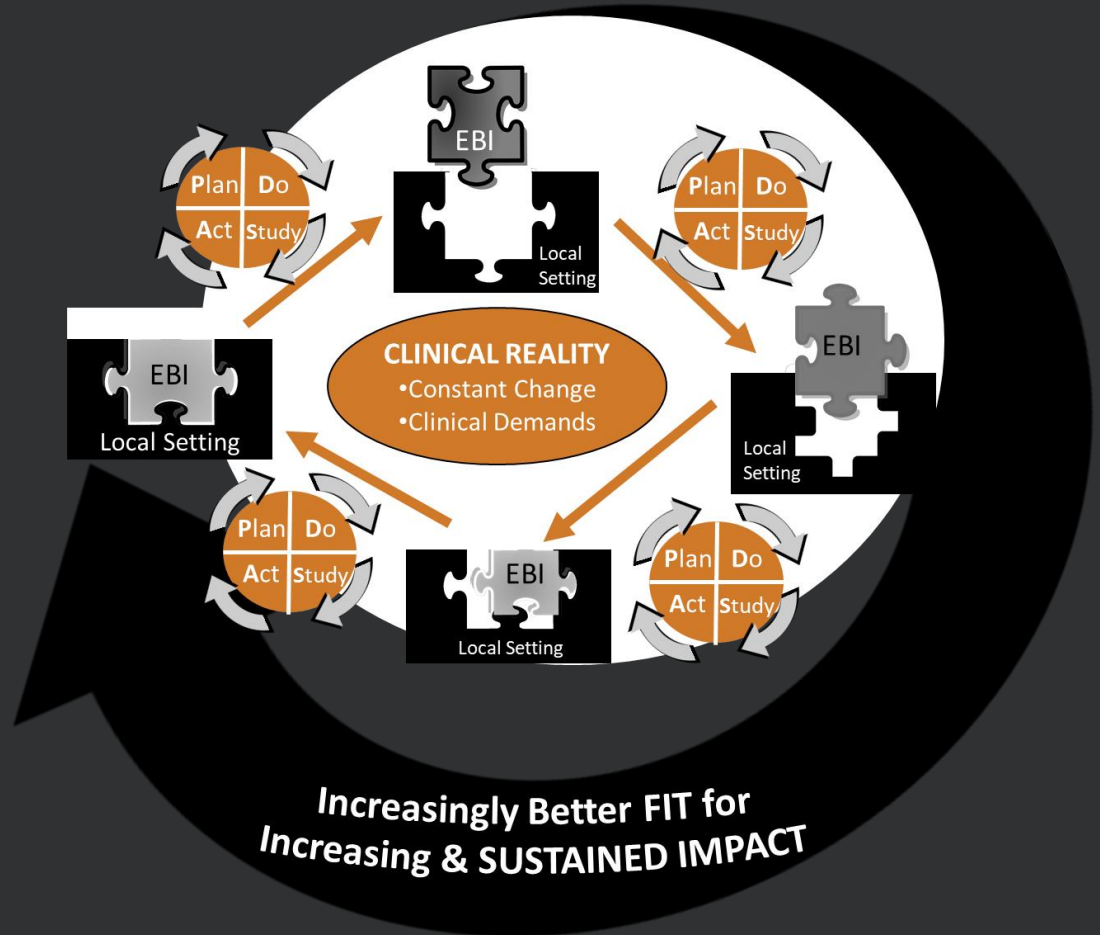
FIDELITY

von Thiele Schwarz et al. BMC Health Services
Research (2019) 19:868

<https://doi.org/10.1186/s12913-019-4668-y>

Dynamic Sustainability Framework:

Continued Optimization

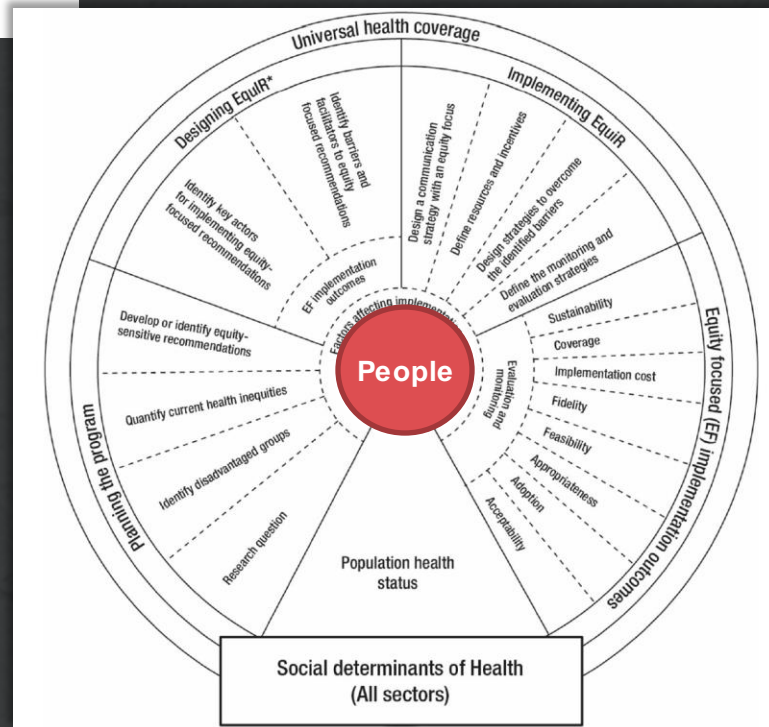


RESEARCH

Open Access

Conceptual framework of equity-focused implementation research for health programs (EquIR)

J. Eslava-Schmalbach^{1,2}, N. Garzón-Orjuela^{1,2*}, V. Elias³, L. Reveiz², N. Tran⁴ and E. V. Langlois⁵



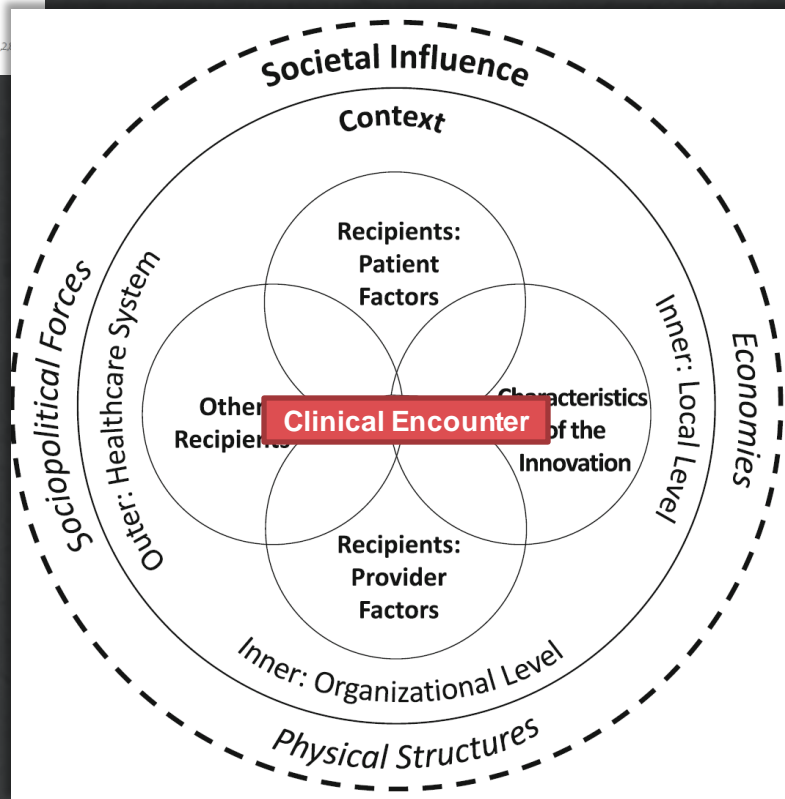
METHODOLOGY

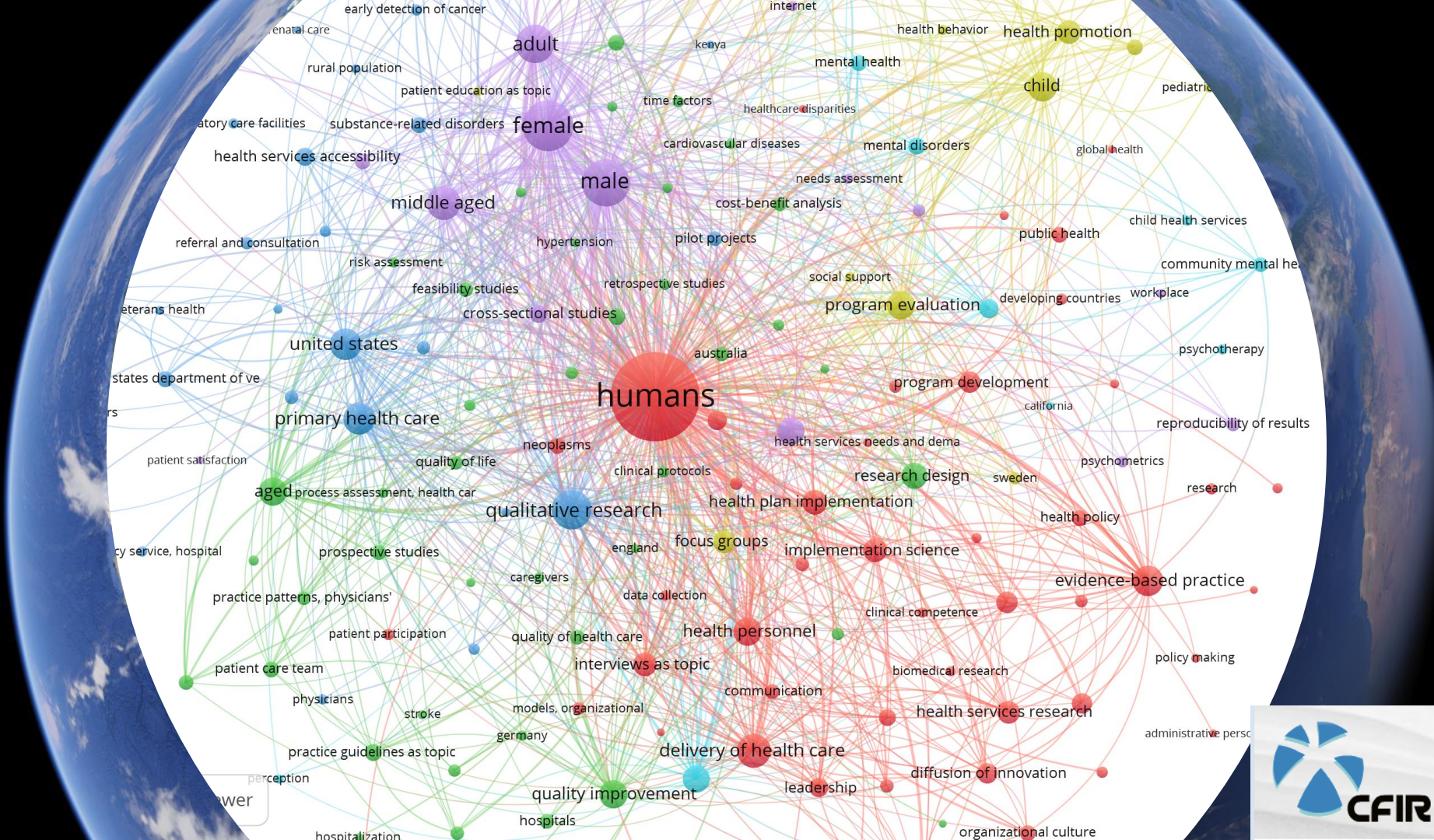
Open Access



The health equity implementation framework: proposal and preliminary study of hepatitis C virus treatment

Eva N. Woodward^{1,2*}, Monica M. Matthieu^{1,3}, Uchenna S. Uchendu⁴, Shari Rogal^{5,6,7} and JoAnn E. Kirchner^{1,2}





A Call for Sustained Commitment to Equity

Journal of Medical Systems (2022) 46: 17
<https://doi.org/10.1007/s10916-022-01803-5>

HEALTH POLICY

Health Equity Tourism: Ravaging the Justice Landscape

Elle Lett¹ · Dalí Adekunle² · Patrick McMurray³ · Emmanuella Ngozi Asabor^{4,5} · Whitney Irie^{6,7} · Melissa A. Simon^{8,9} · Rachel Hardeman¹⁰ · Monica R. McLemore¹¹

Received: 7 December 2021 / Accepted: 28 January 2022 / Published online: 12 February 2022
© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2022

Lett E, Adekunle D, McMurray P, Asabor EN, Irie W, Simon MA, Hardeman R, McLemore MR. Health equity tourism: Ravaging the justice landscape. *Journal of medical systems*. 2022 Mar;46(3):1-6.
<https://doi.org/10.1007/s10916-022-01803-5>

Altmetric Attention Score = 320 → 99th Percentile of 421,268 similar articles

- Altmetric Score for 2009 CFIR article = 144

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
 - Who is represented in this study? *Nothing about me without me*
 - How can this work cause harm?
2. Positionality as Healthcare Praxis
3. Collaboration
4. Sustainability in Urgency



Thank You

Email: ldamschroder@gmail.com