

# STAKEHOLDER PERSPECTIVES AND USE OF IMPLEMENTATION SCIENCE MEASUREMENT TOOLS

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# Advancing Implementation Science Through Measure Development & Evaluation

## Aim 1

- Establish a stakeholder-driven operationalization of a pragmatic measures construct
- Develop reliable, valid rating criteria for assessing the pragmatic strength of measures

## Aim 2

- Develop reliable, valid, pragmatic measures of three critical implementation outcomes: acceptability, appropriateness, & feasibility

## Aim 3

- Identify CFIR- and IOF-linked measures that demonstrate psychometric and pragmatic strength using the Psychometric & Pragmatic Evaluation of Implementation Science Measures (PAPERS)

# Investigative Team



# Publications: 1 R01MH106510

Lewis et al. *Implementation Science* (2015) 10:102  
DOI 10.1186/s13012-015-0287-0



## STUDY PROTOCOL

Open Access

### Advancing implementation science through measure development and evaluation: a study protocol

Cara C. Lewis<sup>1,2\*</sup>, Bryan J. Weiner<sup>3</sup>, Cameo Stanick<sup>4</sup> and Sarah M. Fischer<sup>1</sup>

Powell et al. *Implementation Science* (2017) 12:118  
DOI 10.1186/s13012-017-0649-x

Implementation Science

## SHORT REPORT

Open Access

### Toward criteria for pragmatic measurement in implementation research and practice: a stakeholder-driven approach using concept mapping

Byron J. Powell<sup>1\*</sup>, Cameo F. Stanick<sup>2</sup>, Heather M. Halko<sup>3</sup>, Caitlin N. Dorsey<sup>4</sup>, Bryan J. Weiner<sup>5</sup>, Melanie A. Barwick<sup>6</sup>, Laura J. Damschroder<sup>7</sup>, Michel Wensing<sup>8</sup>, Luke Wolfenden<sup>9</sup> and Cara C. Lewis<sup>4</sup>


Weiner et al. *Implementation Science* (2017) 12:108  
DOI 10.1186/s13012-017-0635-3

Implementation Science

## RESEARCH

Open Access

### Psychometric assessment of three newly developed implementation outcome measures

Bryan J. Weiner<sup>1\*</sup> , Cara C. Lewis<sup>2,3,4</sup>, Cameo Stanick<sup>5</sup>, Byron J. Powell<sup>6</sup>, Caitlin N. Dorsey<sup>7</sup>, Alecia S. Clary<sup>8</sup>, Marcella H. Boynton<sup>7</sup> and Heather Halko<sup>8</sup>

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## the Behavior Therapist

SPECIAL  
ISSUE  
& Dissemination  
& Implementation

Co-Editors: Sarah Kate Bearman & Alyssa V.

### Defining the "Pragmatic" Measures Construct: A Stakeholder-Driven Approach

Heather Halko, *University of Montana*

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# D&I: Stakeholders & Measurement

- Valid and reliable measures are needed to:
  - ▣ Assess barriers and facilitators to implementing evidence-based practices (EBPs)
  - ▣ Inform the development, selection, and tailoring of implementation strategies
  - ▣ Evaluate implementation outcomes
- **However**, little is known about how stakeholders view and/or use implementation science measurement tools

# Present Study

- Aims to promote understanding of how stakeholders:
  1. View and use implementation-relevant measurement tools
  2. Approach and evaluate implementation endeavors without formal tools
  3. Discuss barriers and facilitators surrounding measure use

# Methods

- Participants
  - 15 community stakeholders with experience implementing EBPs in diverse settings (e.g., schools, medical centers, community mental health agencies)
  
- Process
  - Semi-structured qualitative interviews
  - Example Questions:
    - Do you use any tools or measures to assess the context or the situation before implementation?
    - If not, how do you determine whether the context or situation is favorable for implementation?
  
- Data Analysis
  - Content Analysis: Emergent Themes
  - Codebook: CFIR & IOF

# Consolidated Framework for Implementation Research (CFIR)

## Characteristics of Individuals

Individual Stage of Change

Other Personal Attributes

Self-Efficacy

Individual Identification with Organization

Knowledge & Beliefs about Intervention

## Inner Setting

RI: Leadership Engagement

Structural Characteristics

Implementation Climate

IC: Organizational Incentives & Rewards

Culture

IC: Learning Climate

Readiness for Implementation

Networks & Communication

IC: Compatibility

RI: Available Resources

IC: Tension for Change

RI: Access to Knowledge

IC: Goals & Feedback

IC: Relative Priority

## Intervention Characteristics

Adaptability

Complexity

Cost

Design Quality & Packaging

Evidence Strength & Quality

Intervention Source

Relative Advantage

Trialability

## Outer Setting

Cosmopolitanism

Peer Pressure

External Policy & Incentives

Patient Needs & Incentives

## Process

Executing

Engaging

Opinion Leaders

Planning

Reflecting & Evaluating

Champions

External Change Agents

Formally Appointed Internal Implementation Leaders



# Implementation Outcomes Framework (IOF)

## Implementation Outcomes

Acceptability

Adoption

Appropriateness

Cost

Feasibility

Fidelity

Penetration

Sustainability

# Results: Implementation Measure Use

**Do stakeholders routinely use measurement tools to inform and evaluate implementation processes and outcomes?**

# Example Quotes

“We do not use any measures to monitor the state [of implementation]”

“A very informal process of regular meeting and interaction with the providers.”

We have developed our own methods and ways and manner for which to monitor folks progress, but we have not used any formal tools”

“No, there's so many rules that the state applies that you have to comply with...staff would never talk to a kid after a while”

So we'll set spreadsheets up and sort of do implementation plans. We'll have target dates for whether certain sites will implement standard work.

“So we did measure, we just didn't use the implementation measures”

“There isn't even the requirement of having to assess our implementation or best practices”

# Results: Assessing Context

## Needs & Resources

*“Sometimes we’ll get patient input to talk about...their needs and concerns, and what the gaps are and to assess, sort of, their readiness.”*

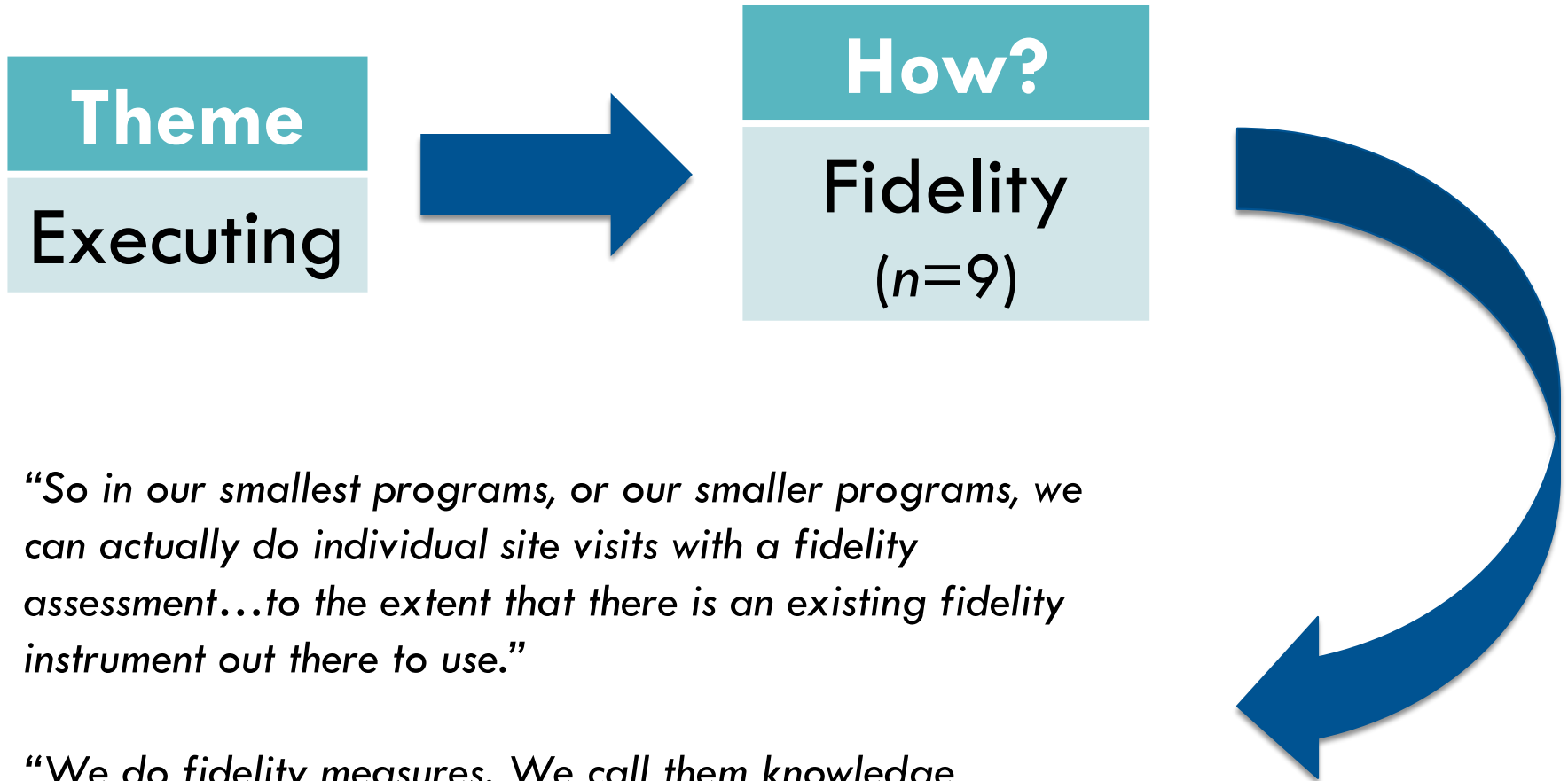
## Leadership Engagement

*“We have divisions amongst our leadership in terms of people can say they’re supportive of that but they have their own agendas that they’re pushing.”*

## Culture

*“The piece about us valuing evidence-based approaches... makes it difficult because the CFTSI intervention does not have...as strong of research.”*

# Results: Assessing Process or Progress



*“So in our smallest programs, or our smaller programs, we can actually do individual site visits with a fidelity assessment...to the extent that there is an existing fidelity instrument out there to use.”*

*“We do fidelity measures. We call them knowledge assessments. And we use fidelity tools, some we made up, some we use from the model.”*

# Results: Assessing Outcomes

## Clinical Outcome Measure

*“We have a series of about five different standardized [clinical] measures...we do a pretest and...then sort of routinely within.”*

## Informal Tools

*“During supervision...I'll ask [clinicians] whatever practice they're using and what step they're on in practice as a way of monitoring”*

## Sustainability

*“How many staff started out interested in working with residents as opposed to down the years how many staff are still doing the uptake of that?”*

# Results: Barriers & Facilitators

- Stakeholders reported the following barriers:
  - ▣ Awareness
  - ▣ Accessibility
  - ▣ Pragmatic
  
- Stakeholders mentioned possible facilitators:
  - ▣ Champions & Leadership Engagement
  - ▣ Access to Knowledge & Information

★ *Even when these potential facilitators were present, organizations did not use formal measurement tools to inform or evaluate implementation efforts*

# Future Directions

- Continue to explore stakeholder views and use of implementation science measurement tools
  - What do stakeholders want to measure?
  - How can we promote awareness of and access to formal measurement tools?
  - How can we make implementation science measurement tools more practical (i.e., pragmatic) for stakeholders
  
- Psychometric & Pragmatic Evaluation of Implementation Science Measures (PAPERS)



# References

- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4(50), 1-15. doi:10.1186/1748-5908-4-50
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