

# Behavioral Science in Health and Health Care: An ACCORDS Seminar Series



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# Behavioral Science in Practice: How to Implement Change in the Clinic

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BETHANY M. KWAN, PHD, MSPH

DANIELLE LOEB, MD, MPH

ACCORDS BEHAVIORAL SCIENCE IN HEALTH AND HEALTHCARE SEMINAR SERIES

WEDNESDAY, FEBRUARY 20, 2019



# Behavioral Science in Health and Healthcare

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An ACCORDS seminar series

Objective:

- To **prepare researchers to identify and apply appropriate behavioral science theories and frameworks** to the design and testing of interventions intended to change human behavior

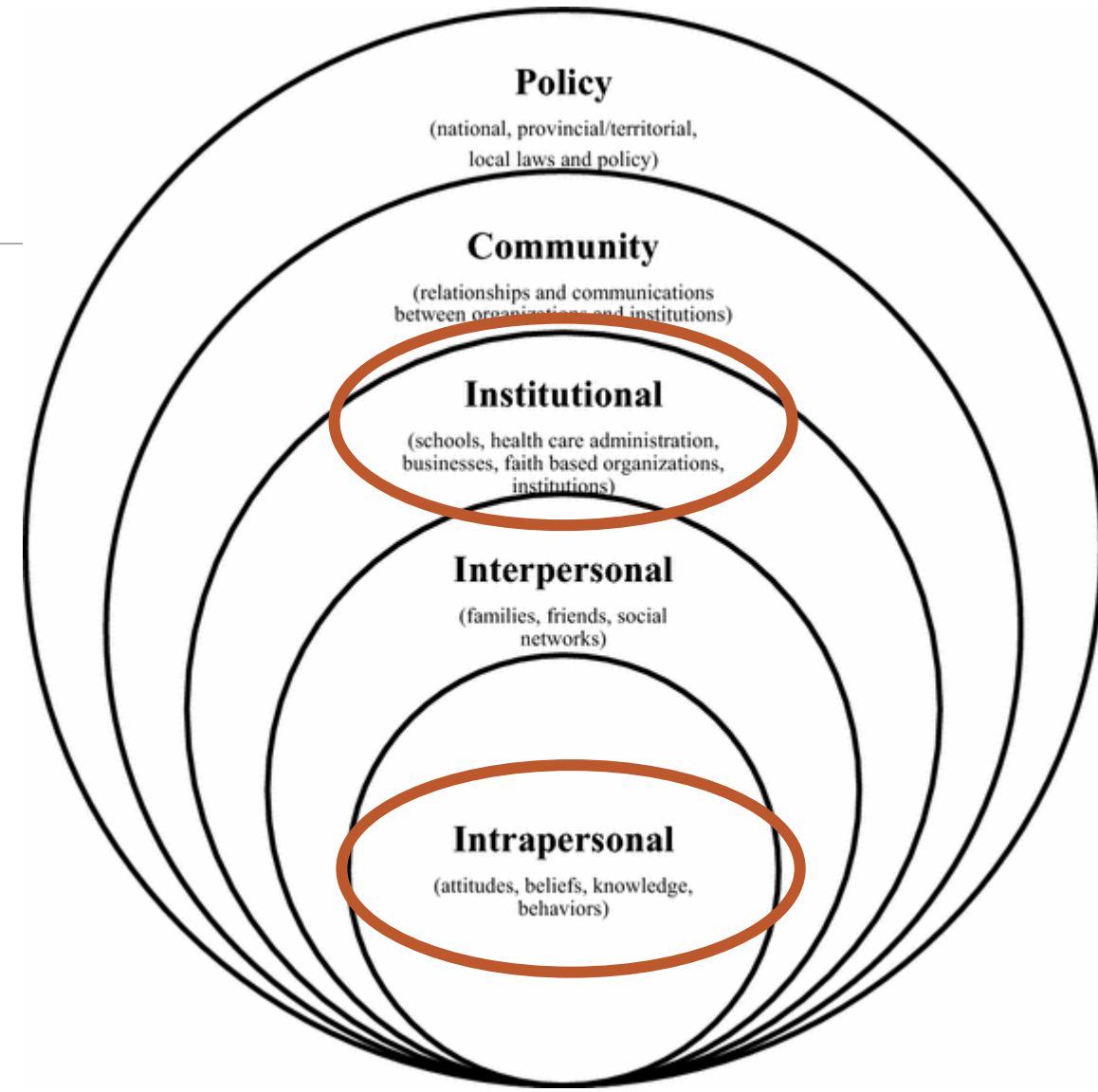
# Ecological Models of Health

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## Five principles

- Multiple levels of influence on health
- Environmental contexts are significant determinants of health
- Influences on health interact across levels
- Health behavior-specific
- Multilevel interventions should be most effective

Sallis, J. F., Owen, N., & Fisher, E. (2015). Ecological models of health behavior. *Health behavior: Theory, research, and practice*, 5, 43-64.



## Danielle Loeb, MD, MPH

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- Practicing general internist
- Fellowship-trained Dissemination and Implementation scientist focus on implementing team-based care for patients with mental and physical illness in primary care
- Research has focused specifically on fostering primary care provider adoption of, and leadership within, team
- In addition to formal research, significant experience implementing practical evidence-based models of care for depression in her primary care clinic, Anschutz Internal Medicine
- Assistant Professor, Department of General Internal Medicine, University of Colorado School of Medicine
- Pilot Funding - NIMH: K23MH100162



# Bethany Kwan, PhD, MSPH

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Social health psychologist with expertise in application of psychological theory to health behavior change

Dissemination and implementation scientist focused on design and testing of chronic disease management interventions in primary care

Stakeholder engagement, healthcare informatics

Assistant Professor, Department of Family Medicine, University of Colorado School of Medicine

ACCORDS Education program lead and D&I program member

CU Data Science to Patient Value (D2V) initiative Dissemination, Implementation, Communications, and Engagement core co-lead



# An exploration

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What is a health problem we need to address?

What is a health behavior that needs to change?

What is an evidence-based intervention for changing that behavior and improving that health problem?

Why aren't we all better yet?



IF AN INTERVENTION WORKS

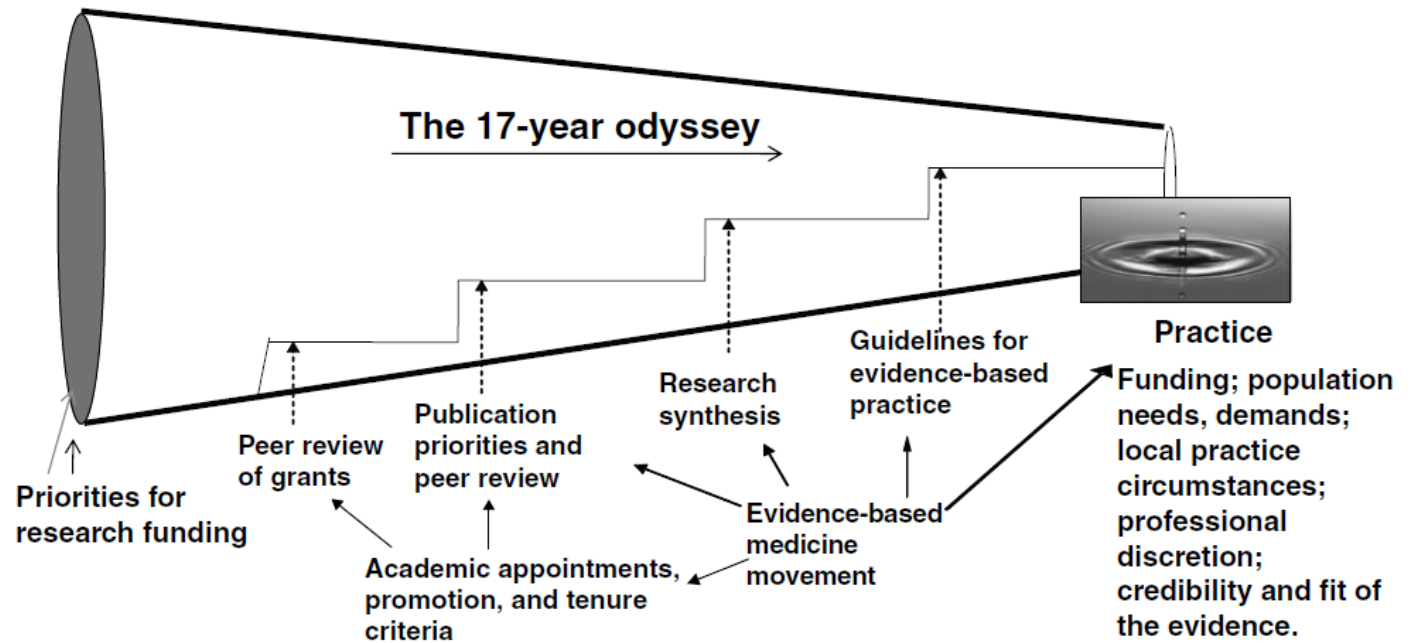
AND NOBODY CAN USE IT.....

DOES IT STILL MAKE AN IMPACT?



# Dissemination and Implementation (D&I) Science

The study of translating research to practice



Green, L. W., Ottoson, J. M., Garcia, C., & Hiatt, R. A. (2009). Diffusion theory and knowledge dissemination, utilization, and integration in public health. *Annual review of public health*, 30, 151-174.

**Figure 1**

The conceptualization of the production and transfer of knowledge from research to practice and policy usually assumes a pipeline in which the vetting of the research through successive screens assures the quality of the research delivered to practitioners and policy makers, but it does little to assure the relevance and fit of that research to the needs, circumstances, and populations of those practice or policy applications. From Reference 48 with permission.

# D&I Definitions

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Evidence-Based Intervention: Interventions with proven efficacy and effectiveness

Dissemination is an active approach of spreading evidence-based interventions to the target audience via determined channels using planned strategies

- Dissemination research is the systematic study of processes and factors that lead to widespread use of an evidence-based intervention by the target population
- Dissemination strategies describe mechanisms and approaches that are used to communicate and spread information about interventions to targeted users.

# D&I Definitions

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Implementation is the process of putting to use or integrating evidence-based interventions within a setting.

- Implementation research seeks to understand the processes and factors are associated with successful integration of evidence-based interventions within a particular setting (e.g., worksite, school, clinic).
- Implementation strategies are the systematic processes or methods, techniques, activities, and resources that support implementation of evidence-based interventions in practice.

RESEARCH

Open Access

# A refined compilation of implementation strategies: results from the Expert Recommendations for Implementing Change (ERIC) project

Byron J Powell<sup>1\*</sup>, Thomas J Waltz<sup>2</sup>, Matthew J Chinman<sup>3,4</sup>, Laura J Damschroder<sup>5</sup>, Jeffrey L Smith<sup>6</sup>, Monica M Matthieu<sup>6,7</sup>, Enola K Proctor<sup>8</sup> and JoAnn E Kirchner<sup>6,9</sup>

## Abstract

**Background:** Identifying, developing, and testing implementation strategies are important goals of implementation science. However, these efforts have been complicated by the use of inconsistent language and inadequate descriptions of implementation strategies in the literature. The Expert Recommendations for Implementing Change (ERIC) study aimed to refine a published compilation of implementation strategy terms and definitions by systematically gathering input from a wide range of stakeholders with expertise in implementation science and clinical practice.

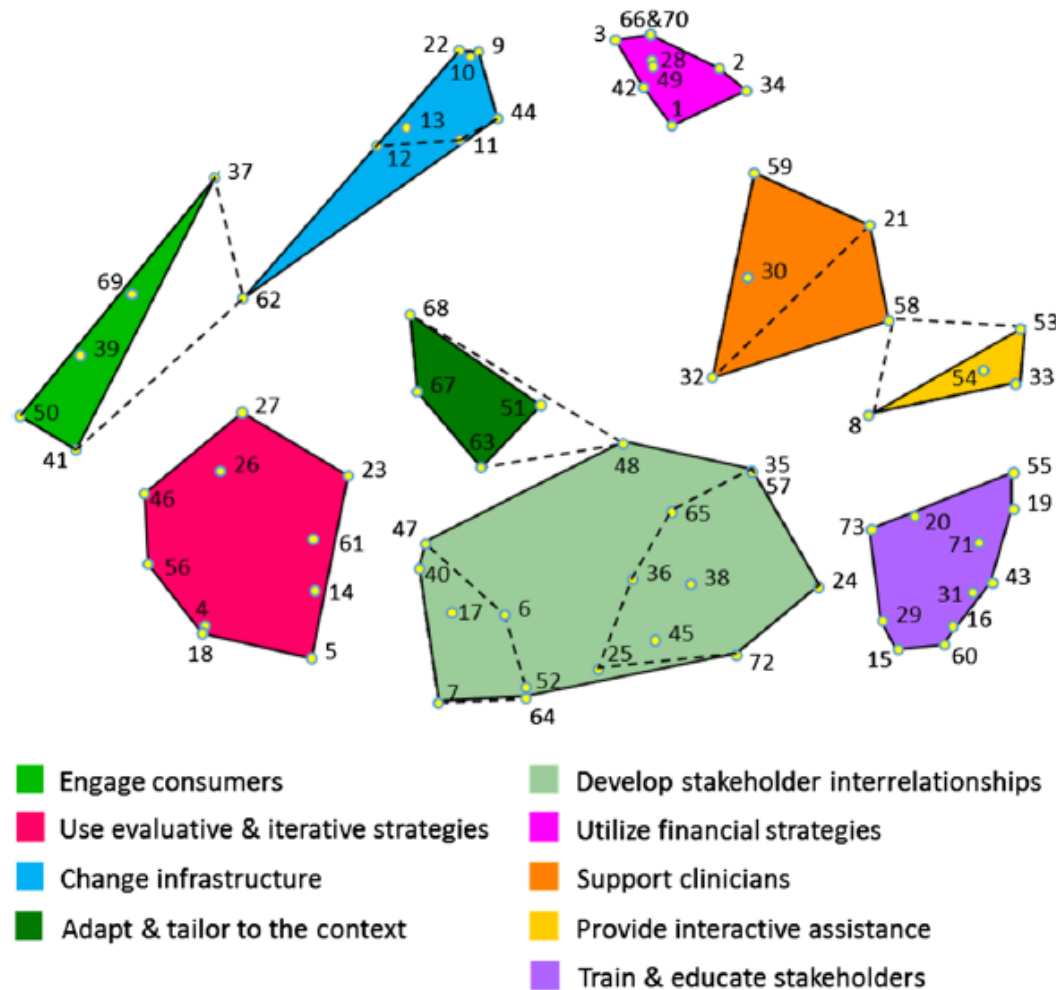
**SHORT REPORT**

**Open Access**

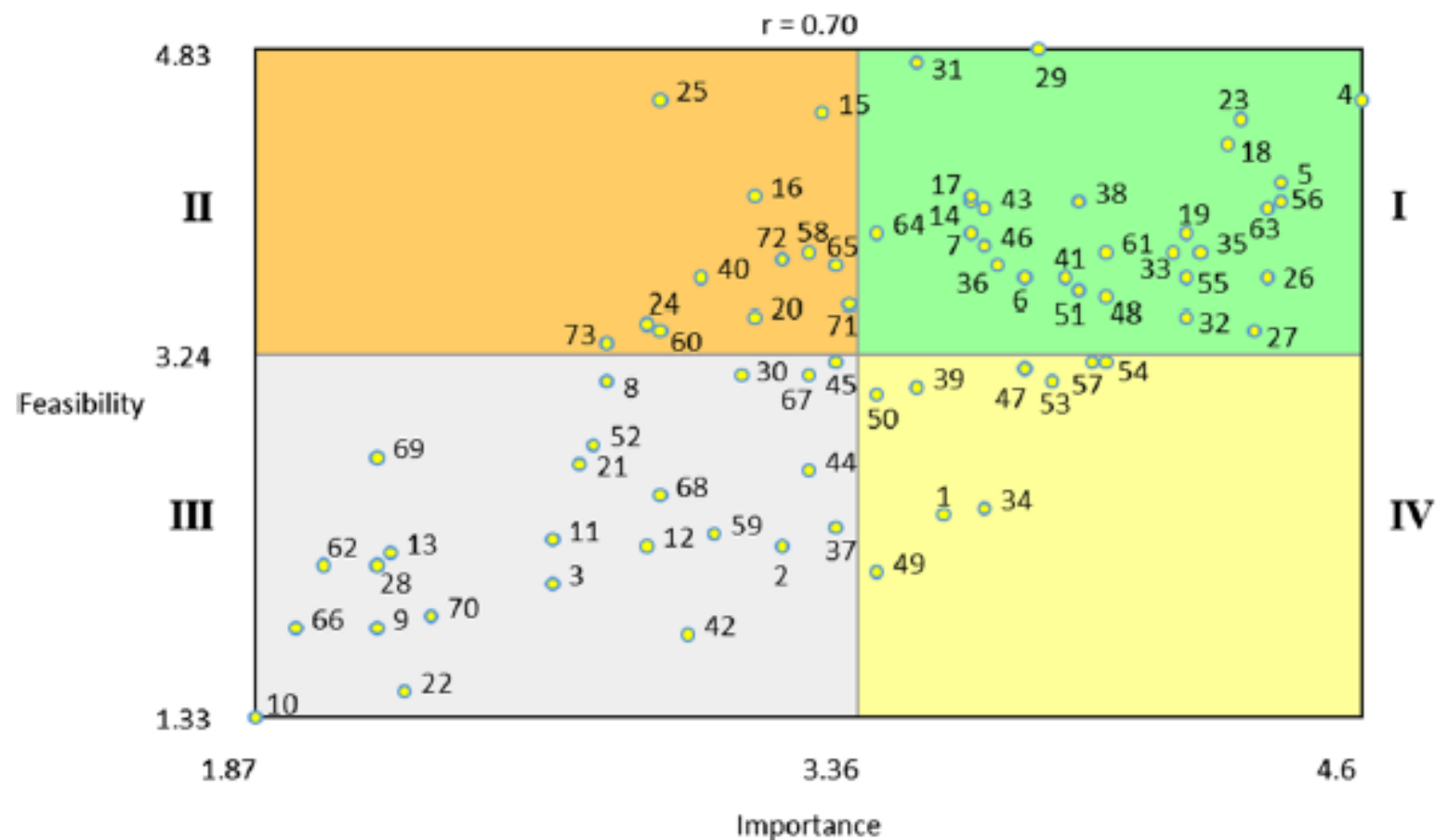


# Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: results from the Expert Recommendations for Implementing Change (ERIC) study

Thomas J. Waltz<sup>1,2\*</sup>, Byron J. Powell<sup>3</sup>, Monica M. Matthieu<sup>4,5,10</sup>, Laura J. Damschroder<sup>2</sup>, Matthew J. Chinman<sup>6,7</sup>, Jeffrey L. Smith<sup>5,10</sup>, Enola K. Proctor<sup>8</sup> and JoAnn E. Kirchner<sup>5,9,10</sup>



**Fig. 1** Point and cluster map of all 73 strategies identified in the ERIC process. The map reflects the product of an expert panel (valid response  $n = 32$ ) sorting 73 discrete implementation strategies into groupings by similarity with each strategy being depicted by a yellow dot and accompanied by a number supporting cross-referencing to the strategies enumerated in Table 1. Spatial distances reflect how frequently the strategies were sorted together as similar. In general, the closer two points are together, the more frequently those strategies were sorted together. Strategies distal from one another were infrequently, if at all, sorted together. These spatial relationships are relative to the sorting data obtained in this study, and distances do not reflect an absolute relationship (i.e., a 5-mm distance in the present map does not reflect the same relationship as a 5-mm distance on a map from a different data set). The legend provides the label for each of the nine clusters of strategies. Dotted lines within the *Develop stakeholder interrelationships* cluster indicate how two separate clusters were merged into one large cluster due to conceptual similarity among their items. Dotted lines extending between other clusters archive the reassignment of strategies from their original cluster to a neighboring cluster to which there was a better conceptual fit (i.e., strategies #48, #58, and #62)



**Fig. 2** Go-zone plot for all 73 strategies based on expert ratings. *Note.* The range of the x and y axes reflect the mean values obtained for all 73 of the discrete implementation strategies for each of the rating scales. The plot is divided into quadrants on the basis of the overall mean values for each of the rating scales. Quadrant labels are depicted with *roman numerals* next to the plot. Strategies in *quadrant I* fall above the mean for both the importance and the feasibility ratings. Thus, these strategies are those where there was the highest consensus regarding their relative high importance and feasibility. Conversely, *quadrant III* reflects the strategies where there was consensus regarding their relative low importance and feasibility. *Quadrants II* and *IV* reflect strategies that were relatively high in feasibility or importance, respectively, but low on the other rating scale



**Table 1** A summary of the 73 implementation strategies, organized by cluster with mean importance and feasibility ratings

|    |   | Importance | Feasibility | Go-zone quadrant |
|----|---|------------|-------------|------------------|
|    | Use evaluative and iterative strategies                     | 4.19       | 4.01        | –                |
| 4  | Assess for readiness and identify barriers and facilitators | 4.60       | 4.57        | I                |
| 5  | Audit and provide feedback                                  | 4.40       | 4.13        | I                |
| 56 | Purposefully reexamine the implementation                   | 4.40       | 4.03        | I                |
| 26 | Develop and implement tools for quality monitoring          | 4.37       | 3.63        | I                |
| 27 | Develop and organize quality monitoring systems             | 4.33       | 3.37        | I                |
| 23 | Develop a formal implementation blueprint                   | 4.30       | 4.47        | I                |
| 18 | Conduct local need assessment                               | 4.27       | 4.33        | I                |
| 61 | Stage implementation scale up                               | 3.97       | 3.77        | I                |
| 46 | Obtain and use patients/consumers and family feedback       | 3.67       | 3.80        | I                |
| 14 | Conduct cyclical small tests of change                      | 3.63       | 4.03        | I                |
|    | Provide interactive assistance                              | 3.67       | 3.29        | –                |
| 33 | Facilitation  | 4.13       | 3.77        | I                |
| 54 | Provide local technical assistance                          | 3.97       | 3.20        | IV               |
| 53 | Provide clinical supervision                                | 3.83       | 3.10        | IV               |
| 8  | Centralize technical assistance                             | 2.73       | 3.10        | III              |

# Discrete implementation strategies

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Use evaluative and iterative strategies

Provide interactive assistance

Adapt and tailor to context

Develop stakeholder interrelationships

Train and educate stakeholders

Support clinicians

Engage consumers

Utilize financial strategies

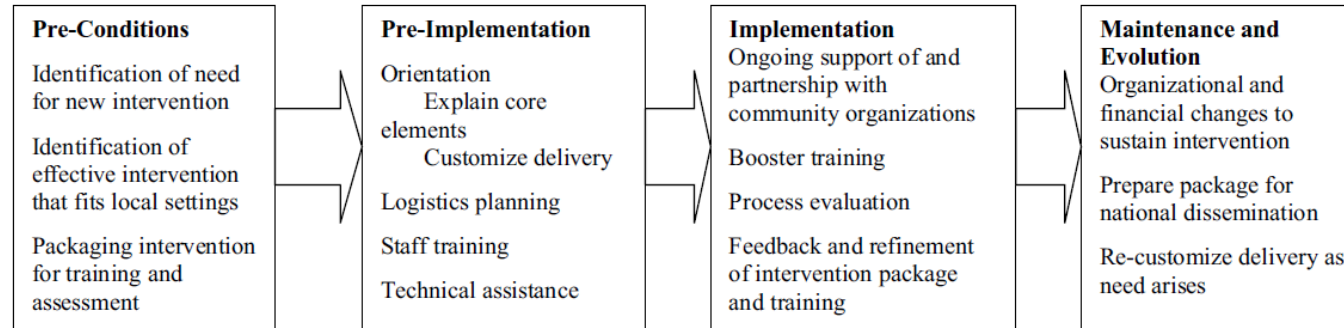
Change infrastructure

Waltz, T. J., Powell, B. J., Matthieu, M. M., Damschroder, L. J., Chinman, M. J., Smith, J. L., ... & Kirchner, J. E. (2015). Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: results from the Expert Recommendations for Implementing Change (ERIC) study. *Implementation Science*, 10(1), 1.



# Implementation Frameworks

## Replication Effective Programs (REP)



**Figure 1**

**Replicating effective programs framework for health care interventions.** This figure outlines the Replicating Effective Programs (REP) process as it can be applied to health care interventions.

Kilbourne, A. M., Neumann, M. S., Pincus, H. A., Bauer, M. S., & Stall, R. (2007). Implementing evidence-based interventions in health care: application of the replicating effective programs framework. *Implementation Science*, 2(1), 42.

## Promoting Action on Research Implementation in Health Services (PARIHS)

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'Successful implementation' in the revised i-PARIHS framework

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$$SI = Fac^n(I + R + C)$$

SI = successful implementation

Achievement of agreed implementation/project goals

The uptake and embedding of the innovation in practice

Individuals, teams and stakeholders are engaged, motivated and 'own' the innovation

Variation related to context is minimised across implementation settings

Fac<sup>n</sup> = facilitation

I = innovation

R = recipients (individual and collective)

C = context (inner and outer)

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Stetler, C. B., Damschroder, L. J., Helfrich, C. D., & Hagedorn, H. J. (2011). A guide for applying a revised version of the PARIHS framework for implementation. *Implementation Science*, 6(1), 99.

# Selecting Implementation Strategies

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How might you know which implementation strategies will work for which clinical interventions, in which settings, for which people?

# Applying D&I Theories and Frameworks to Health Services Research

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Guiding identification of specific factors within a particular setting that influence dissemination and implementation of an intervention

- Formative research
- Stakeholder engagement

Selecting interventions that meet the needs of the target setting

Mapping measures and D&I strategies to the components of the selected model to understand determinants of and/or measure outcomes

Designing D&I strategies to target determinants of change in the target setting

# Concept Mapping for Implementation Strategies

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What are the determinants of (aka barriers and facilitators) implementation in a given context?

- Stakeholder engagement
- Theory
- Literature
- Formative research

What implementation strategies map to those determinants?

Powell, B. J., Beidas, R. S., Lewis, C. C., Aarons, G. A., McMillen, J. C., Proctor, E. K., & Mandell, D. S. (2017). Methods to improve the selection and tailoring of implementation strategies. *The journal of behavioral health services & research*, 44(2), 177-194.

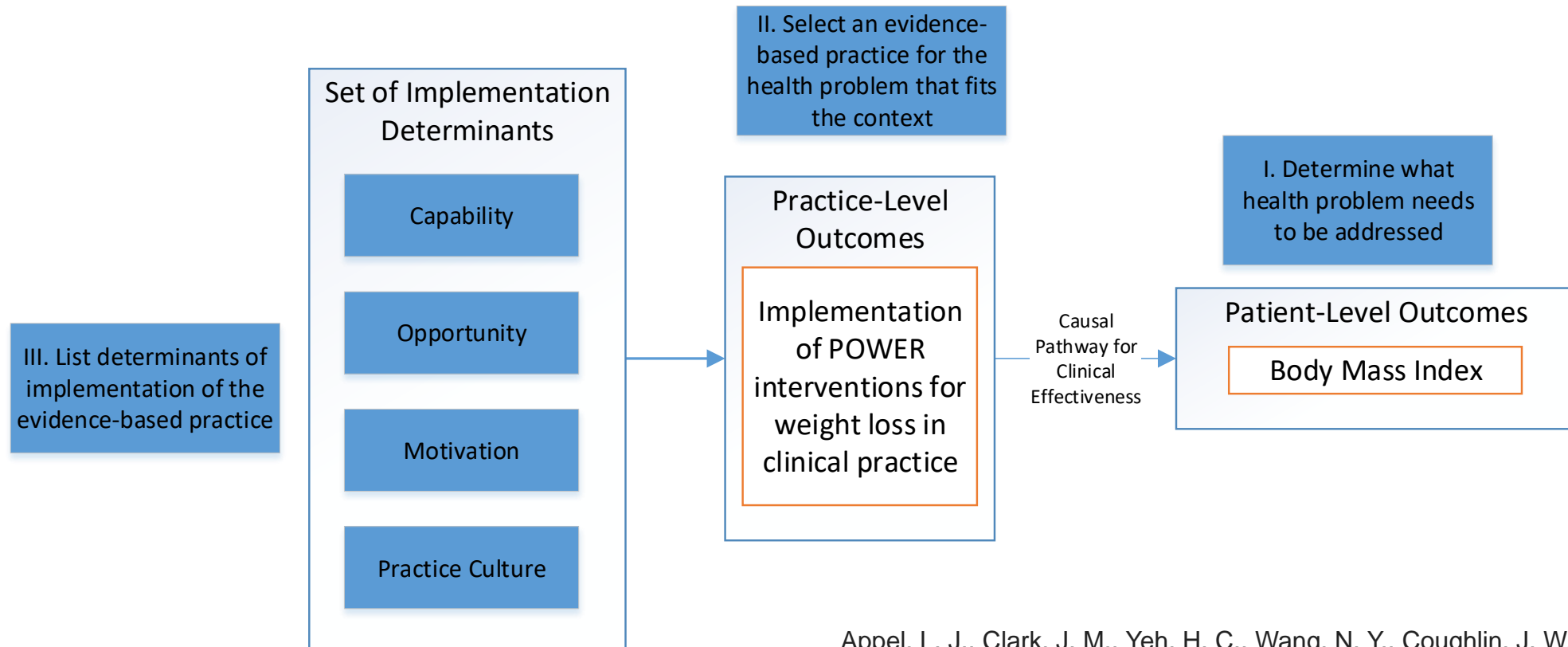
**Figure 4**

Example matrix of determinants, learning objectives, theory-based methods, and implementation strategies<sup>80</sup>

| Determinant                                  | Learning objectives for the insurance physician   | Theory-based method  | Practical strategy  |
|--|---|--|---|
| Knowledge                                    | Familiarity with the content of the guideline   | Dissemination of training material<br>Active learning from experts           | Making guideline available in combination with practical instruments  |
| Skills                                       | The ability to apply knowledge in practice  | Interactive group training   | Interactive training in use of the guidelines   |
| Attitude                                     | Willingness to accept the guidelines and use them to improve quality  | Persuasion by opinion leaders  | Benefits highlighted during training and by staff and the Netherlands Association for Insurance Medicine                            |
| Self-efficacy                                | Belief in ability to use the guidelines in practice and finding answers to questions  | Performance-related feedback   | Positive individualised feedback during training and subsequently in practice, assistance with questions                            |
| Expectations                                 | Expectation that the guideline will contribute to more evidence-based assessments   | Individualized feedback and group performance audit data                     | Training in use of the guidelines with exercise case-histories, feedback at group and individual level                              |
| <b>Change objectives for the environment</b> |   |  |   |
| Availability                                 | The ability to practise, ask questions and work on personal performance   | Feedback, personal improvement, planning                                     | Practice in training, feedback on performance, support with questions   |
| Uniformity                                   | All insurance physicians covered by similar requirements  | Quality-monitoring and quality-management                                    | Staff physician appraises all insurance physicians using the same indicators  |
| Support                                      | Support from colleagues, staff, management and professional association, facilitation and, where necessary, amendment of the work process | In-built process reminders, quality management, support from opinion leaders | Quality evaluation by management, staff quality-oriented direction, promotion by the Netherlands Association for Insurance Medicine |

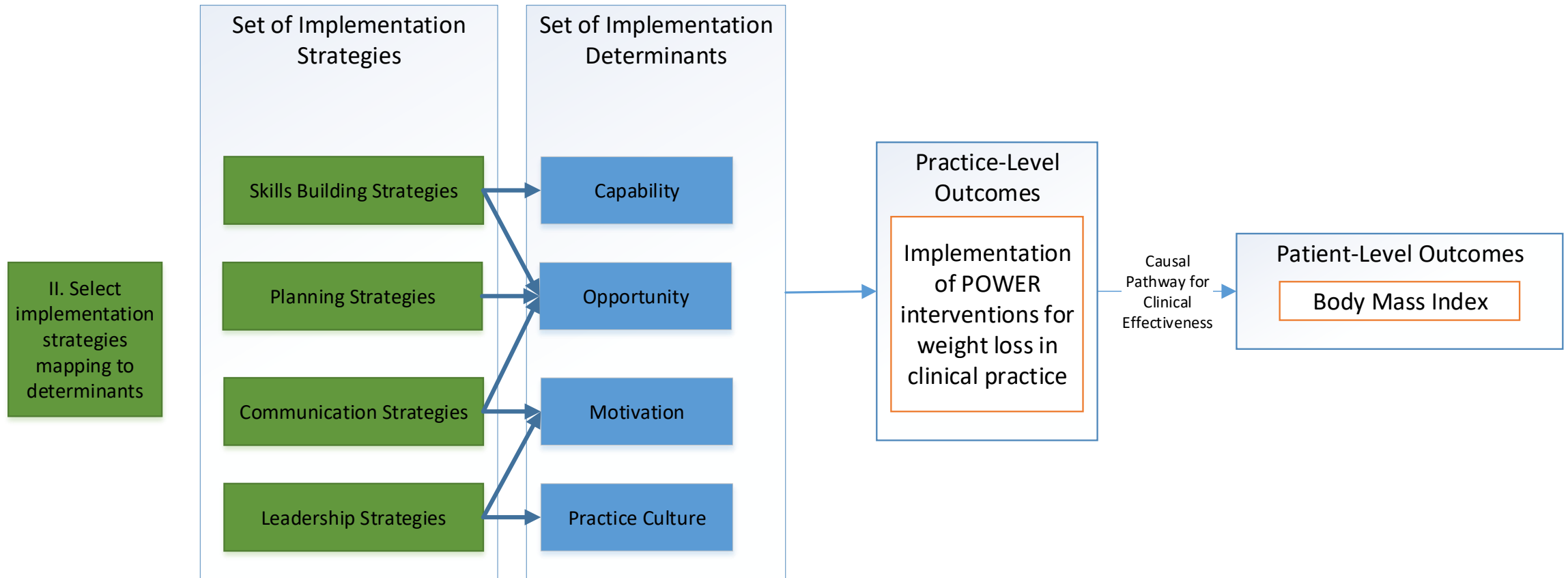
Powell, B. J., Beidas, R. S., Lewis, C. C., Aarons, G. A., McMillen, J. C., Proctor, E. K., & Mandell, D. S. (2017). Methods to improve the selection and tailoring of implementation strategies. *The journal of behavioral health services & research*, 44(2), 177-194.

# Identify implementation determinants



Appel, L. J., Clark, J. M., Yeh, H. C., Wang, N. Y., Coughlin, J. W., Daumit, G., ... & Noronha, G. (2011). Comparative effectiveness of weight-loss interventions in clinical practice. *New England Journal of Medicine*, 365(21), 1959-1968.

# Select implementation strategies



# Clinical Problem

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## Mental Illness

Pervasive in the US --with a quarter of the population suffering from psychiatric illness at some point in their lives

- 9.5% of US with mood disorders in the last 12 months

Worsens outcomes in patients with chronic medical illnesses (both morbidity and mortality)

Negatively impacts psychiatric outcomes— both functional outcomes and severity of symptoms



# Clinical Context

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Approximately 10% of primary care patients suffering from psychiatric illnesses such as anxiety and depression

43%-60% of treatment for psychiatric conditions occurs in primary care

Many patients struggle to access care with mental health specialists

Yet, primary care struggles to adequately fill this need:

- Primary care providers (PCPs) report high levels of uncertainty in their clinical skills for managing mental illness
- Patients rarely receive guideline-concurrent care for mental illness in primary care settings

# Evidence-Based Intervention

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The Collaborative Care Model (CCM) and other team-based models known to improve outcomes for mental illness in primary care (over 90 RTCs)

These models emphasize the need for PCPs to work within a healthcare team, which includes nurses, social workers, and care managers

Measurement-based care (MBC) – using validated instruments to systematically measure patients' symptoms and adjust treatment accordingly – is a core component of multiple models of behavioral health integration including the CCM

CCM: Katon WJ, Lin EH, Von Korff M, et al. Collaborative care for patients with depression and chronic illnesses. *N Engl J Med*. 2010;363(27):2611-2620.

MBC: Fortney JC, Sladek R, Unutzer J, et al. *Issue Brief: Fixing Behavioral Health Care in America: A National Call for Measurement-Based Care in the Delivery of Behavioral Health Services*. The Kennedy Forum;2015.

# Determinants of Implementation

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Primary care practices have been slow to adopt these models

Practical:

- Training, space, workforce availability, workflows, billing, reimbursement, and documentation procedures

Psychosocial:

- PCP Self-efficacy in mental illness management and team-based care
- Role Change: Although PCPs generally prefer team-based care for patients with behavioral health needs, transitioning to team-based care can be challenging
- Clinic climate: recurring patterns of behavior, attitudes and feelings that characterize working in the clinic
- Team Relational Coordination: a theory of organizational management focusing on the interdependent relationships between people working in teams

# Implementation Strategy: Practice Facilitation

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Practice facilitation:

Promotes practice improvement in clinical teams, individual clinics, or healthcare systems

Characterized by support from a practice facilitator (PF) who is a health care professional trained in practice improvement methods who facilitates system-level changes

Improves multiple aspects of Team-based Care

- 1) communication across specialties
- 2) increased adoption of practice change
- 3) consensus building

# Implementation Strategy: Practice Facilitation

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PFs can be used to help implement integrated behavioral health as they often have expertise in specific areas of primary care practice, specifically the management of patients with psychiatric illness.

However, practice facilitation does not explicitly address the psychosocial factors essential to sustainable practice change.

# Relational Team Development (RELATED): a tailored practice facilitation intervention

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Developed to address:

- Gaps in PCP skills and knowledge in management of complex patient with mental illness
- Dysfunctional team dynamics that can impede sustained practice change

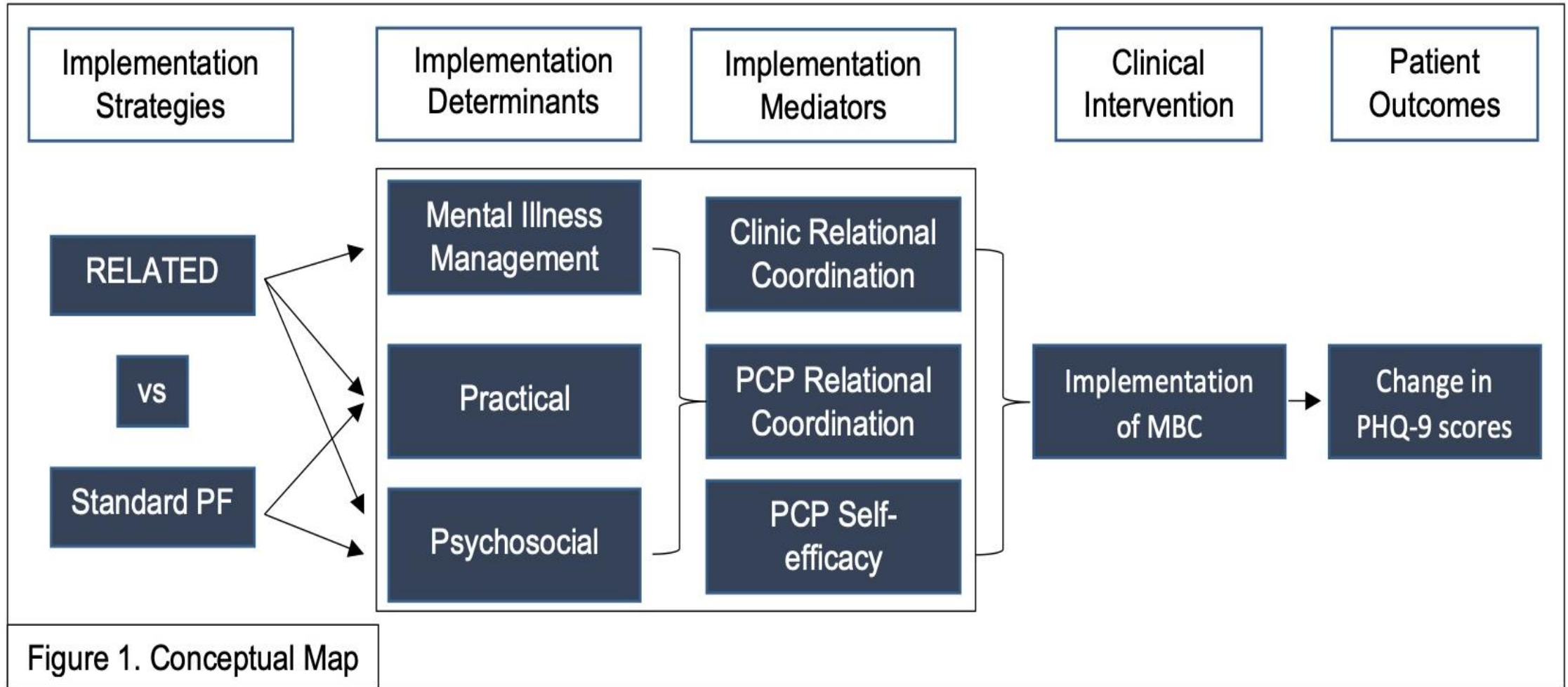
Delivered by a practice facilitator with specialized training in clinical psychology

**Table 1: Components of Relational Team Development (RELATED) and Standard Practice Facilitation**

|  | RELATED   |   | Standard Practice Facilitation  |
|--|---|---|---|
|  | PCP Clinical Supervision and Coaching (Coaching)  | Practice Change Activity Team (PCAT)  |   |
| Description  | Facilitator observes PCPs in 4+ visits with complex patients; facilitator uses clinical psychology and coaching techniques during 1-on-1 debriefs with PCPs.  | <b>Facilitator guides implementation of a practice change</b> ; in this process, maladaptive team dynamics are identified and addressed.  | <b>Facilitator guides implementation of a practice change</b> and builds internal capacity for improvement activities.  |
| Participants   | <ul style="list-style-type: none"> <li>• PCPs</li> <li>• Patients whose visits are observed</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>Clinic team (i.e., PCPs and staff representatives, leadership)</b></li> <li>• Patient representatives</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>Clinic team (i.e., PCP and staff representatives, leadership)</b></li> </ul>  |
| Implementation Factors   | Distinguishing Features   |   |   |
| Mental Illness Management<br>⇒ <b>Knowledge</b><br>⇒ <b>Skills</b><br>⇒ <b>Communication</b>   | <ul style="list-style-type: none"> <li>• Diagnostic and treatment feedback</li> <li>• Didactics tailored to individual knowledge gaps</li> <li>• Patient communication practice</li> <li>• Multicultural case discussion</li> </ul> | <ul style="list-style-type: none"> <li>• Tailored group didactics on mental illness</li> <li>• Communication practice</li> </ul>  |   |
| Practical<br>⇒ <b>Quality improvement processes</b><br>⇒ <b>Practice monitoring systems</b><br>⇒ <b>Improvement Plans</b><br>⇒ <b>Modified Workflows</b> | <ul style="list-style-type: none"> <li>• Use of interdisciplinary team and available mental health resources</li> </ul>   | <b>Training:</b> <ul style="list-style-type: none"> <li>• <b>Quality improvement methods</b></li> <li>• <b>Measurement-Based Care (MBC)</b></li> </ul> <b>Facilitation:</b> <ul style="list-style-type: none"> <li>• <b>Assess current system</b></li> <li>• <b>Create improvement plan (for MBC)</b></li> <li>• <b>Implement improvement plan (for MBC)</b></li> <li>• <b>Evaluate/modify improvement plan targeting sustainability</b></li> </ul> |   |
| Psychosocial<br>⇒ <b>Interpersonal relationships</b><br>⇒ <b>Clinic Culture</b><br>⇒ <b>Attitudes</b><br>⇒ <b>Role change</b><br>⇒ <b>Role clarity</b>   | Interpersonal focus on: <ul style="list-style-type: none"> <li>• Emotional reactions</li> <li>• Self and other awareness</li> <li>• Attitudes towards team-based care</li> <li>• Experience of clinic culture</li> </ul>            | Team dynamics focus on: <ul style="list-style-type: none"> <li>• Non-hierarchical communication and leadership behaviors</li> <li>• Mutually agreed upon processes</li> <li>• <b>Role clarity</b></li> <li>• Psychological safety</li> <li>• Past practice change experiences</li> </ul>  | Group process emphasizing: <ul style="list-style-type: none"> <li>• <b>Role clarity</b></li> <li>• Communication workflows</li> <li>• Team-building activities</li> </ul> |

Bolded text indicated shared features.

# RELATED Conceptual Map





**Table 1** A summary of the 73 implementation strategies, organized by cluster with mean importance and feasibility ratings

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# Discrete implementation strategies

---

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Provide interactive assistance

Adapt and tailor to context

Develop stakeholder interrelationships

Train and educate stakeholders

Support clinicians

Engage consumers

Utilize financial strategies

Change infrastructure

Waltz, T. J., Powell, B. J., Matthieu, M. M., Damschroder, L. J., Chinman, M. J., Smith, J. L., ... & Kirchner, J. E. (2015). Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: results from the Expert Recommendations for Implementing Change (ERIC) study. *Implementation Science*, 10(1), 1.

# Coaching Component

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## Strategies:

- Assess for readiness and identify barriers
- Provide clinician supervision
- Train and educate stakeholders
- Support clinicians

# PCAT Component

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## Strategies:

- Facilitation
- Develop formal implementation blueprint
- Train and educate stakeholders
- Develop stakeholder interrelationships
- Provide interactive assistance
- Engage consumers

# Pilot Trial: Setting and Participants

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- 2 primary care clinics associated with a safety-net hospital in Denver, Colorado 2017-18
- PCPs recruited for the full intervention
- Complex patients defined as those with a mood disorder or anxiety disorder + a chronic medical illness
- Clinic staff and leadership recruited for the PCAT only
- Patient representatives in PCAT recruited from those shadowed in Coaching component

# Primary Outcome Measures

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**Feasibility:** ease of recruitment and implementation of the RELATED intervention

**Acceptability:** modified 4-item measure of acceptability for behavioral health interventions

- 4-point Likert scale
- 1 month and 6 months post intervention

# Secondary Outcome Measures

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## **Team-based Care and Mental Illness Management Self-efficacy**

- Our team developed and validated two self-efficacy scales
- Based on Bandura's social cognitive theory
- PCPs (n = 402, response rate = 49%) from diverse practice settings completed surveys
- Reported on a scale of 0 to 10 with 0 being 'not at all confident' and 10 being 'extremely confident'

Additional Measures: modified Communication Skills Self-assessment, Mental Health Knowledge and Management Instrument, Attitudes toward Health Teams Scale, and Team Climate Inventory

**Table 1. Acceptability Survey Results**

|                               |                  |                  |
|-------------------------------|------------------|------------------|
| <b>Overall</b>                | <b>1 month</b>   | <b>6 month</b>   |
| <b>N=36</b>                   | <b>N=36</b>      | <b>N=33</b>      |
| <b>M (SD)</b>                 | <b>M (SD)</b>    | <b>M(SD)</b>     |
| <b>3.7 (0.3)</b>              | <b>3.8 (0.3)</b> | <b>3.7 (0.4)</b> |
| <b>SD= Standard Deviation</b> |                  |                  |



| <b>Table 2. Pre-post Changes in PCP Survey Scores</b>   |   |                              |
|---|---|------------------------------|
| <b>Survey Scale/Subscale</b>  | <b>Pre-Post Mean Difference (95%CI)</b> | <b>Paired T test P-value</b> |
| <b>Team Based Care SE (0-10)</b>  | 0.8 (-0.3,1.9)                          | <b>0.14</b>                  |
| <b>Mental Health Care SE (0-10)</b>   | 0.9 (0.5,1.4)                           | <b>&lt;.01</b>               |
| <b>Communication SE (0-10)</b>  | 0.4 (-0.1,0.9)                          | <b>0.09</b>                  |
| <b>Overall Knowledge of Treatment (0-100)</b>   | 4.0 (-0.8,8.8)                          | <b>0.10</b>                  |
| <b>Knowledge of MDD Treatment</b>   | 6.7 (0.1,13.3)                          | <b>0.05</b>                  |
| <b>Knowledge of GAD Treatment</b>   | 2.9 (-4.3,10.2)                         | <b>0.40</b>                  |
| <b>Knowledge of BPD Treatment</b>   | 3.1 (-4.7,10.9)                         | <b>0.42</b>                  |
| <b>Attitude Toward Team Based Care (1-5)</b>  | -0.1 (-0.3,0.1)                         | <b>0.38</b>                  |
| <b>Team Climate (1-%</b>  | -0.1 (-0.4,0.3)                         | <b>0.61</b>                  |
| SE = Self-efficacy; MDD = Major Depressive Disorder; GAD = Generalized Anxiety Disorder; BPD = Bipolar Disorder |   |                              |

**Table 3. Focus Groups: feasibility and acceptability**

| Component  | Quote   |
|--|---|
| <b>Acceptability positive</b>                        | I think it was a good use of our time. I think it was something that needed to be looked at with better access for behavioral health consultants, and I think it's probably going to make a difference. –Nurse Leadership   |
| <b>Acceptability negative</b>                        | In terms of how many hours have we spent doing that [PCAT]. Even though in the world of QI it's pretty efficient, for me it's not. It's probably ten hours in the past couple months... That's a lot of time.”–PCP  |
| <b>Acceptability (staff)<br/>Effect on hierarchy</b> | It was nice to have input on what was going on in the clinic and how to troubleshoot issues and just to be involved as a medical assistant. We usually don't get the opportunity to work as a group and have that kind of input.” –Staff  |
| <b>Feasibility positive</b>                          | I liked how Sxxx [PF] worked through the project cause I think it was a little difficult in the beginning and helping us decide what we wanted to work, but I think you did a really good job at narrowing it down and getting it to something that was attainable. –Leadership |

Focus group participants: 13 PCPs, 6 leaders, 12 staff

**Table 4. Focus Groups: Team-based Care**

| <b>Component</b>  | <b>Quote</b>   |
|---|--|
| <b>Team functioning</b>                                       | It's a different level of respect because now we have more of an understanding of what each of our role is, and how important it is once the patient reaches that certain person because we didn't have an understanding of what their job entails, and how much work they're putting in to it. –Staff |
| <b>Effect on hierarchy</b>                                    | It was nice to have input on what was going on in the clinic and how to troubleshoot issues and just to be involved as a medical assistant. We usually don't get the opportunity to work as a group and have that kind of input.” –Staff   |
| <b>Patient perspective</b>                                    | It's changed my perspective... It makes me a little bit more patient-centered when I deal with things... aware of what's really going on in the clinic or why people are responding the way they are. –Staff   |
| <b>Inclusivity</b>  | I liked the chance to come together with lots of team members in different roles across the clinic... It made me feel more connected with the clinic. –Staff   |
| <b>Focus group participants: 13 PCPs, 6 leaders, 12 staff</b> |  |

# Pilot trial: Conclusions

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**Feasible:** recruited more PCPs and staff than originally planned and the intervention implementation had no major obstacles

**Highly acceptable** among PCPs, staff, and clinic leadership on both survey and focus groups

Statistically significant improvements in PCP self-efficacy in management mental illness and a trend toward improvement in self-efficacy in team-based care (though not powered for those outcomes)

Coaching component highly valuable for PCPs

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# Questions?

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Please contact me for further information

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