Leadership and Organizational Strategies for Implementation in Health

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– R21MH098124 (PI: Ehrhart)
Roadmap

- Multilevel and phased nature of implementation
- Leadership in implementation in health
- Molar and focused climates
- General and implementation leadership
- LOCI
- Embedding mechanisms
Why Consider Leadership within Levels of Change?

Four Levels of Change for Assessing Performance Improvement

Larger System/ Environment
- Reimbursement, legal, and regulatory policies are key

Organization
- Structure and strategy are key

Group / Team
- Cooperation, coordination, & shared knowledge are key

Individual
- Knowledge, skill, and expertise are key

Assumptions about Change


**Exploration**
- Consideration of new approaches to providing services and fit with outer/inner context service system, organizations, providers and target population(s)

**Preparation**
- Planning for providing a new service including funding, clinical or service processes, practical issues

**Implementation**
- Training and support for provision of this new service

**Sustainment**
- Maintaining the new service or intervention with fidelity over time

EPIS Framework: Contextual Factors

- **Outer context**
  - Larger environment in which the service unit operates
    - e.g., policy and funding, inter-organizational networks, relationships with intervention developers and technical assistance providers, certification and regulatory environment

- **Inner context**
  - Inside the organization or unit providing services
    - e.g., service organization, individuals providing services, target population(s)


Leadership and Implementation Across Organizational Levels

Leadership Associated with:

- **Organization**
  - Organizational climate
  - Innovation climate
  - Implementation climate
  - Implementation success and sustainment

- **Staff**
  - Attitudes toward EBP
  - Emotional Exhaustion
  - Depersonalization
  - Personal Accomplishment
  - Working alliance
  - Turnover

- **Client**
  - Consumer Satisfaction
  - Consumer Quality of Life

Source: ¹Aarons et al., 2004; ²Aarons & Sommerfeld, 2012; ³Corrigan, Diwan, Campion, Rashid, 2002; ⁴Edmondson, 2003; ⁵Hoagwood, Kelleher, Murray, et al., 2006; ⁶Klein, Conn, & Sorra, 2001
Leadership in Interdisciplinary Teams for Minimally Invasive Cardiac Surgery


Leadership Impact on Climate and Turnover During Statewide Behavioral Health Reform

<table>
<thead>
<tr>
<th>Clinic Level</th>
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<th>Individual Provider</th>
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<tbody>
<tr>
<td>Transformational Leadership</td>
<td>Empowering Climate</td>
<td>Turnover Intentions</td>
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Empowering Climate - .26*

Demoralizing Climate - .55**

Transformational Leadership

Organizational Climate Mediates effect of Transformational Leadership on EBP Perceived Burden

Team level | Team level | Individual Provider
---|---|---
Transformational Leadership | Empowering Climate | .37**
Transformational Leadership | Demoralizing Climate | -.26*
Empowering Climate | Perceived EBP Burden | -.05
Demoralizing Climate | Perceived EBP Burden | .55**


Effects of Type of Leadership on Team Climate for Innovation and Staff Attitudes Toward Adopting EBP

How Important and Changeable is Leadership for EBP?

<table>
<thead>
<tr>
<th>Importance Ranking</th>
<th>Changeability Ranking</th>
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<tbody>
<tr>
<td>1. Leadership</td>
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<tr>
<td>2. Funding</td>
<td>2. Clinical perceptions</td>
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<td>3. Staff Dev/Support</td>
<td>3. Consumer values</td>
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<td>4. Staff resources</td>
<td>4. Staff Dev/Support</td>
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<td>5. Costs</td>
<td>5. Impact on clinical practice</td>
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<td>7. Beneficial EBP features</td>
<td>7. Consumer concerns</td>
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<td>8. Political dynamics</td>
<td>8. Agency compatibility</td>
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<td>10. Consumer values</td>
<td>10. Staff resources</td>
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<td>13. Impact on clinical practice</td>
<td>13. EBP limitations</td>
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<td>14. EBP limitations</td>
<td>14. Costs</td>
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<td>15. Agency compatibility</td>
<td>15. Funding</td>
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## ARC Org Improvement Model
(Availability, Responsiveness, Continuity)

<table>
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<th>Stage</th>
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<td>Identification</td>
<td>Direction Setting</td>
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<td>Collaboration</td>
<td>1. Leadership</td>
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<td>3. Network Development</td>
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<td>Participation</td>
<td>4. Team Building</td>
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<td>6. Feedback</td>
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<td>7. Participatory Decision-Making</td>
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<td>8. Conflict Management</td>
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<td>Innovation</td>
<td>9. Goal Setting</td>
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<td>10. Continuous Improvement</td>
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<td>11. Job Redesign</td>
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<td>12. Self-Regulation</td>
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Impact of Management Support and Resource Availability on Implementation Effectiveness

Management Support → Implementation Climate → Implementation Effectiveness (MRPTOO Use) → Innovation Effectiveness (MRPTOO Benefits Time 2)


Figure 2. Path model and path coefficients for the revised model. MRPTOO = a pseudonym for a manufacturing resource-planning package. *p < .05. ***p < .001.

Mgmt. support, resources, policies can be considered “climate embedding mechanisms”

Organizational, Strategic & Implementation Climate

General organizational climate
– Focuses on staff perceptions and affective response to the work environment
  - Organizational Social Context (Glisson et al., 2008)
  - Organizational Climate Measure (OCM: Patterson et al., 2005)

Strategic Climates
– Climate for a particular objective or goal
  “events, practices, and procedures, and the kinds of behaviors that get rewarded, supported, and expected in a setting”
  – (Schneider 1990, p. 384; Schneider & Ehrhart, 2013).
  – Safety climate (Zohar, 2000, Zohar & Luria, 2005)
  – Service climate (Ehrhart, Witt, & Schneider, 2011)

Implementation Climate
– …employees’ shared perceptions of the importance of EBP or innovation implementation within the organization
  (adapted from Klein, Conn, & Sorra, 2001, p. 813)
Scale Development

The ICA intended to measure the structures and processes in an organization that support the perceived value, adoption, and use of evidence-based practices.

Convened workgroup as part of NIMH grant on leadership for improving organizational climate for EBP implementation and sustainment.

- Experts in implementation climate, leadership, I/O psychology, public sector service management.

Began with work of Klein, Conn, & Sorra (2001).

Considered culture/climate embedding mechanisms.

- Schein (2010).

Adapted existing dimensions and items.

Added dimensions and items pertaining to EBP.

Developed items related to implementation leadership.
Implementation Climate Scale (ICS) Sample

N=630 (CA & Pennsylvania)

Sex
- 76.5% female

Ethnicity/Race
- Hispanic = 37.4%
- Caucasian = 45.9%
- African American = 18.3%
- Asian/Pacific Islander = 5.1%
- American Indian = 1%
- other or multiple = 30.1%

Education
- High school = 2.3%
- Some college = 7.5%
- College graduate = 25.4%
- Some graduate work = 3%
- Master’s degree = 62%
- Ph.D./M.D. or equivalent = 2.9%

Position
- Intern/trainee = 43.7%
- Unlicensed professional = 39.6%
- Licensed provider = 16.6%
Scale Development

All items are scored on a 5 point Likert type scale
- (0 = “Not at all” 1 to 4 = “To a very great extent”).

Implementation Climate
- 57 Items
- 9 proposed subscales
  - Staff acceptance, support, educational support, program focus, team focus, recruitment, selection, recognition, rewards

Implementation Leadership
- 29 Items
- 5 proposed subscales
  - Knowledge, anticipatory, supportive, perseverant, leader attitudes

Preliminary analyses
- Face validity
- Content validity
- Exploratory Factor Analyses (PAF, Promax)
- Higher order analyses for leadership
- Reliability analyses
Implementation Climate Scale

1. Focus on EBP
   - “Using EBP is a top priority at this agency”

2. Recognition for EBP
   - “Seen as clinical experts”

3. Educational Support for EBP
   - “This team provides EBP trainings or “in-services”

4. Rewards for EBP
   - “More likely to get a bonus/raise”

5. Selection for EBP
   - “Previously used EBP”

6. Selection for Openness
   - “Open to new interventions”

Implementation Climate Total Scale
   - Alphas range .81-.91; Total alpha=.91; 18 items

1. What is Expected
   - “I am expected to use TF-CBT with a certain number of clients:
   - “I am expected to help my agency meet its goals for implementing TF-CBT”

2. What is Supported
   - “I get the support I need to identify potentially eligible clients for TF-CBT”
   - “I get the support I need to use TF-CBT with my clients”

3. What is Rewarded
   - “I receive recognition when I use TF-CBT with my clients”
   - “I receive appreciation when I use TF-CBT with my clients”

General Leadership and Implementation Leadership

Full Range Leadership

- Transformational
  - Idealized Influence
  - Intellectual Stimulation
  - Individual consideration
  - Inspirational motivation

- Transactional
  - Management by exception (active)
  - Contingent reward

Implementation Leadership

- Leadership that supports implementation of evidence-based practices through proactive and supportive behaviors.

- Proposed 5 scales
Implementation Leadership Scale (ILS) Sample

Sample
- N=459 participants
- K=93 outpatient clinics

Age
- 36.5 (SD=10.7)

Sex
- 79% female

Ethnicity/Race
- Hispanic = 23.4%
- Caucasian = 54%
- African American = 6.7%
- Asian/Pacific Islander = 5%
- American Indian = 0.5%
- other or multiple = 10%

Education
- High school = 0.7%
- Some college = 3%
- College graduate = 12.2%
- Some graduate work = 6.5%
- Master’s degree = 68%
- Ph.D./M.D. or equivalent = 7%
Implementation Leadership Scale

Proactive Leadership
- “Has a plan to address implementation of EBP”

Knowledgeable Leadership
- “Is able to answer staff questions about EBP”

Supportive Leadership
- “Recognizes and appreciates employee efforts toward successful implementation of EBP”

Perseverant Leadership
- “Carries on through the challenges of implementing EBP”

Implementation Leadership Total Scale
- (Alpha range Total α = .97, 12 items; v=91.1%)


http://www.implementationscience.com/content/9/1/45
Multilevel analyses account for clinicians nested within teams


http://www.implementationscience.com/content/9/1/45
Leadership and Organizational Change for Implementation (LOCI)
(R21 MH082731 Aarons)
Leadership and Organizational Change for Implementation: LOCI

Inspiration for LOCI project
- Idea developed in conjunction with managers at mental health CBOs (CBPR)

Challenge for health care business and management
- Using *evidence-based leadership and management* to improve implementation of *evidence-based health care*

Increasing emphasis on moving research to practice
- (NIH, CDC, AHRQ, W.T. Grant Foundation)

Focus on First Level Leadership and cross-level embedding mechanisms
- Priestland & Hanig (2005); Schein (2010)

Leadership & Organizational Change for Implementation (LOCI) Study

**Investigators and Collaborators** → **Intervention Development** → **Intervention Deployment** → **Outcomes**

<table>
<thead>
<tr>
<th>Agency/Program</th>
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<tbody>
<tr>
<td>Agency Execs, Program Managers</td>
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<table>
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<tr>
<th>Advisory Groups</th>
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<tbody>
<tr>
<td>Program Managers - SDPMLG Clinicians/Case Managers - TAG</td>
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<table>
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<tr>
<th>Investigators/Consultants</th>
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<tr>
<td>Implementation/MH Services: Program Leadership/Management I/O/Climate Leadership Implementation Climate MH Leadership Curriculum EBP – CIMH</td>
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</table>

**Feasibility**

**Acceptability**

**Perceived Utility**
LOCI Feasibility Pilot Trial Timeline

- **Date driven**
  - Initial 360 assessment at BL, 3months, 6months
  - Individualized goal setting and training plans
  - Weekly coaching calls
  - Monthly group calls to share experiences
  - Follow-up training – reinforcement/camaraderie
  - Final meeting with focus group
Qualitative Outcomes

- **Feasibility**
  - Format and process (time commitment, group trainings, weekly coaching) seen as feasible

- **Acceptability**
  - Didactic and interactive aspects of training were acceptable
  - Brief coaching calls were acceptable and valued
  - Webinar not acceptable for consolidating learning

- **Perceived Utility**
  - Utility for EBP implementation and use
  - Utility for engaging middle and upper management
  - Utility for personal and professional development

Feasibility & Acceptability Outcomes
LOCI (n=5) Compared to Control Condition (n=6)

Feasibility
- Engagement in leadership training  \( (t=2.39, p<.05) \)
- Increased leadership knowledge  \( (t=6.43, p<.001) \)

Acceptability
- Applied what was learned  \( (t=4.80, p<.001) \)
- Improved leadership behaviors  \( (t=4.88, p<.001) \)
- Ability to manage change  \( (t=4.54, p<.01) \)
- Change in behavioral routines  \( (t=4.94, p<.01) \)
- Changed leadership behaviors  \( (t=4.97, p<.01) \)
- Increased emphasis on EBP with subordinates  \( (t=4.11, p<.01) \)

Perceived Utility
- Greater overall utility  \( (t=7.20, p<.001) \)
- Higher utility in managing organizational change  \( (t=5.72, p<.001) \)
- Greater utility implementing/using EBPs in team  \( (t=4.84, p<.001) \)

Subordinate Report of Leader Support for EBP: Predicted Means over Time by Condition ($p < .05$).

Organizational Context for Implementation

- Align leadership to develop strategic climate for implementation
- Enhance general leadership and “implementation leadership”
- Support congruence of leadership across organizational levels
- Schein’s (2010) primary & secondary culture/climate embedding mechanisms


Primary Climate Embedding Mechanisms

- What leaders pay attention to, measure, control
- How leaders react to critical incidents, crises
- How leaders allocate resources
- Role modeling, teaching, coaching
- How leaders allocate rewards and status
- How leaders recruit, select, promote, excommunicate


Strategies to Support EBP Implementation Climate

What leaders pay attention to, measure and control:

- Regularly “talk up” EBP and get excited about it
  - ILS Proactive
  - TFL Inspirational Motivation

- Include the use of EBP in the team or agency mission
  - ILS Proactive, Knowledgeable
  - TFL Inspirational Motivation

- Tie in the importance of proven effectiveness of EBP to the larger goal of improving client outcomes
  - ILS Proactive, Knowledgeable
  - TFL Inspirational Motivation
Strategies to Support EBP Implementation Climate

How leaders react to critical incidents:

- React to crises during implementation by effectively problem-solving and engaging staff
  - ILS Proactive
  - TFL Intellectual Stimulation

- Engage the team in problem solving to support the use of the EBP
  - ILS Proactive
  - TFL Intellectual Stimulation

- Admit when things are puzzling and not going as expected invite other’s input
  - ILS Perseverance
  - TFL Idealized Influence, Intellectual Stimulation
Strategies to Support EBP Implementation Climate

How leaders allocate resources, rewards and status:

- Provide rewards based on staff’s quality use of EBP
  - ILS Support
  - TFL Contingent Reward

- Pay attention to and reward the proper use of EBP
  - ILS Support
  - TFL Contingent Reward

- Point out exemplary efforts toward implementation
  - ILS Knowledge, Support
  - TFL Individualized Consideration
Strategies to Support EBP Implementation Climate

Role modeling, teaching and coaching:

- Coach staff members individually as needed to improve their understanding and use of EBP
  - ILS Supportive, Proactive
  - TFL Individualized Consideration

- Ensure that supervisors are knowledgeable about EBP
  - ILS Knowledgeable
  - TFL Individualized Consideration

- Be a role model of positive attitudes toward EBP
  - ILS Supportive
  - TFL Idealized Influence
Strategies to Support EBP Implementation Climate

How leaders recruit, select, promote:

- Selection at the program and agency level should include looking for prior EBP experience and assessing attitudes toward EBP
  - ILS Proactive, Knowledgeable leadership
- Ensure that supervisors are knowledgeable about EBP
  - ILS Knowledgeable leadership
  - TFL Idealized influence
- Be a role model of positive attitudes toward EBP
  - ILS Supportive, Perseverant
  - TFL Idealized Influence, knowledgeable, proactive, perseverant
Secondary Climate Embedding Mechanisms

- Organizational design and structure
- Organizational systems and procedures
- Rites and rituals of the organization
- Design of physical space, facades, building
- Stories about important events and people
- Formal statements of organizational philosophy, creeds, and charters (mission, vision)


Summary of Leadership that Supports Implementation

- Pay close attention to the implementation of EBP and regularly communicate and model understanding and enthusiasm to staff.
- Utilize critical incidents during implementation to engage staff and promote EBP.
- Recognize and reward staff efforts and successes during EBP implementation.
- Be a role model and a resource for your staff regarding EBP and implementation.
- Consider EBP implementation when hiring and promoting staff.
- Utilize structural (e.g., mis) and process (e.g., feedback) to support EBP implementation.
The Challenge of Leading Implementation in Health Care

- **Take responsibility for implementing the best evidence in clinical services**
  - This is ethical leadership

- **Take a stand for quality care**
  - Apply the best evidence-based approaches to clinical care
  - Apply best approaches to leading change

- **The Ultimate Goals**
  - Constantly improve health care services
  - Improve work life of service providers
  - Improve the lives of patients/clients
Leadership to Implementation Climate

Leadership

Culture/Climate

Embedding

Mechanisms

Organizational
Culture

Organizational
Climate

Implementation
Climate
Conclusions

- Leadership is associated with climate for implementation and attitudes toward EBP

- Implementation leadership has four dimensions and can be assessed with the ILS

- Organizational context encompasses relationships but also structures and processes to support new practices

- There are new approaches to assessing implementation climate and measures are available

- Combining leadership and organizational change strategies can help develop a climate for EBP implementation and sustainment

Implementation Leadership Scale (ILS)
ILS - http://www.implementationscience.com/content/9/1/45

Implementation Climate Scale (ICS)
ICS - http://www.implementationscience.com/content/9/1/157
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