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## Ride the Knowledge Wave 3

### #116- Effects of an organizational leadership and climate strategy on implementation and clinical outcomes of digital measurement-based care in youth mental health services: a hybrid type III effectiveness-implementation trial

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#### Research aim

Successful implementation of evidence-based practice in healthcare requires effective organizational leadership; however, few studies have rigorously tested implementation strategies that target leaders. This type III effectiveness-implementation trial tested the Leadership and Organizational Change for Implementation (LOCI) strategy on the implementation and clinical outcomes of digital measurement-based care in mental health.

#### Setting

The trial was conducted in 21 outpatient mental health clinics serving youth, ages 4 to 18 years, in three states in the USA. Clinicians who worked with youth received training and technical assistance for 12 months to implement an evidence-based digital measurement-based care intervention called the Outcomes Questionnaire Analyst.

#### Method(s)

Clinics were assigned to the LOCI strategy (n=11) or control (n=10) using covariate constrained randomization. Youth-caregiver dyads (N=234) who entered services during the study period had implementation and clinical outcomes assessed for 6 months. The primary implementation outcome was youth exposure to digital measurement-based care (range=0-100%), assessed using electronic meta-data. Secondary implementation outcomes included the number of measures administered and number viewed per youth. The primary clinical outcome was change in youth symptoms from baseline to 6-months post-baseline, measured via monthly caregiver reports. Secondary clinical outcome was youth achievement of reliable symptom improvement. Analyses adjusted for clustering and important covariates.

#### Key finding(s)

Although overall youth exposure to digital measurement-based care was low, likely due to the onset of the COVID pandemic during the trial, on average, youths served by LOCI clinics experienced significantly greater exposure to digital measurement-based care compared to youth in control (p<0.05). Analysis of total measures administered and total measures viewed per youth indicated LOCI's effect on implementation was explained more by increased rates of viewing. Compared to youths in control, youths served by LOCI clinics experienced significantly faster and greater symptom improvement from baseline to 6-months (p<0.05), and had greater likelihood of achieving reliable symptom improvement (p<0.05).

#### Discussion

Results demonstrate that practical, leadership-focused implementation strategies like LOCI can improve implementation and clinical outcomes of evidence-based digital health technologies in youth mental health settings, even amidst significant external shocks like the COVID pandemic. Discussion questions include: (1) What can we do to build implementation strategies that are optimally robust to external shocks and competing demands? (2) Despite mounting evidence that investments in implementation improve health outcomes, policymakers may be hesitant to fund

‘non-clinical’ activities such as leader development; what can implementation science do as a field to better address and overcome the hesitance to invest in implementation strategies?

### Challenges

Three months into the trial, the COVID-19 pandemic exploded, placing enormous demands on participating clinics. We responded by encouraging clinic leaders to pace implementation in alignment with changing realities, pausing when necessary, and by helping leaders use the newly implemented measurement-based care tool to address some of the emerging challenges.

### Key highlights

- Implementation science methods can meaningfully improve outcomes even amidst major external shocks; however, when these methods are not applied, competing demands are likely to stifle change.
- Societal investments in implementation – specifically, in leadership development – have direct positive impacts on patient health. This is vital to the case that ‘implementation matters.’

## #255- Are implementation leadership and climate related to successful implementation?

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### Research aim

It is assumed that leaders can improve implementation outcomes by developing a climate in the organization that contributes to the implementation of knowledge-based practice (KBP). This study examined the effects of implementation leadership and implementation climate on three implementation outcomes; acceptability, appropriateness and feasibility.

### Setting

Child and adult specialized mental health services in (...).

### Method(s)

Screening tools and evidence-based trauma treatment were implemented in 43 services. A sample of 187 practitioners within mental health care for children and adults filled in questionnaires about their perception of leaders' (n=47) implementation leadership and the clinics' implementation climate. Implementation outcomes were measured by therapists' perceptions of the acceptability, appropriateness and feasibility of the screening tools and treatment methods. Path analysis was used to investigate a) the effect of implementation leadership on implementation climate and implementation outcomes, and b) whether implementation climate mediates the effect of implementation leadership on implementation outcomes.

### Key finding(s)

We will present findings for the following hypotheses:

- H1: Implementation leadership has an effect on therapists' perception of their acceptability, appropriateness and feasibility of the screening tools and treatment methods.
- H2: Implementation leadership has an effect on implementation climate.
- H3: Implementation climate has an effect on therapists' perception of their acceptability, appropriateness and feasibility of screening tools and treatment methods.

- H4: Implementation climate mediates the effect of implementation leadership on therapists' perception of their acceptability, appropriateness and feasibility of screening tools and treatment methods.

### Discussion

- What is implementation success, and how can we measure it?
- How can we ensure that leaders take their responsibility in the implementation?

### Challenges

We had difficulties measuring actual implementation outcomes. Even though anticipated outcomes such as acceptability, appropriateness and feasibility are believed to predict actual outcomes, we need to find ways to measure actual outcomes in the services.

### Key highlights

More research is needed to understand if and how implementation management and climate affect the implementation of evidence-based treatment methods. This knowledge is necessary so that services can better facilitate successful implementation.

## #256- Leader-follower ratings of implementation leadership and implementation climate in a mental healthcare system: Will implementation leadership training have an effect on the level of agreement?

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### Research aim

Leaders generally provide more positive scores than employees on leadership and organizational factors. In mental healthcare settings, therapist scores are linked to more positive outcomes, suggesting interventions to increase agreement. This study compares leader-follower ratings of implementation leadership and climate and investigates the effect of leadership training on agreement.

### Setting

The study was conducted in public specialized mental healthcare clinics for children and adults within the four regional health trusts in Norway. The medical doctor provides referrals, and the treatment is heavily subsidized to make it universally available.

### Method(s)

Data were collected from 43 child and youth clinics and district psychiatric centers. Descriptive statistics and regression models will be used to investigate leader-follower agreement related to general leadership, implementation leadership, and implementation climate, how these are related, and the effect of the Leadership and Organizational Change for Implementation (LOCI) on the level of agreement.

### Key finding(s)

Key findings related to the following research questions will be presented:

- What is the level of agreement in leader-follower reports of general leadership, implementation leadership, and implementation climate?
- Will followers of "humble" leaders report more positive scores for general leadership, implementation leadership, and implementation climate?

- Will training leaders in the LOCI strategy have a positive effect on the level of agreement?

#### Discussion

- Do leaders and followers in a mental healthcare setting have the same perspective on leadership and climate?
- How can we ensure leader-follower alignment on important organizational factors?

#### Challenges

Training leaders in LOCI is time-consuming, and future studies should investigate the cost-effectiveness of this and similar implementation strategies for implementation success.

#### Key highlights

- Perspectives matter: Who owns the truth depends on who you ask. Implementation science should include data from several sources.
- Interventions to increase leader-follower agreement on implementation outcomes can be important for implementation success.

### #83- Does it take a pandemic to make healthcare fit for implementation leadership?

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#### Research aim

Exploring implementation leadership in healthcare by investigating what first line managers know, do and prefer in terms of guideline implementation, whilst in regular conditions and during the covid-19 pandemic.

#### Setting

Health care: 17 orthopedic units in Sweden, located at university-, regional-, and local hospitals.

#### Method(s)

Two qualitative interview studies with nursing and rehabilitation first line managers. Thirty interviews were conducted in early 2021 and analyzed with content analysis, using both a deductive and abductive approach. Elements and processes of **the Ottawa Model of Implementation leadership (O-MILe)** were initially employed, followed by an investigation of what additional perspectives were shared, and if and how these added and progressed the understanding of implementation leadership. An additional ten interviews were conducted in 2022 and analyzed with an inductive thematic analysis, focusing on first line managers' experiences of guideline implementation during the pandemic.

#### Key finding(s)

Reflecting the **O-MILe**, first line managers enact, or struggle to enact, implementation leadership based on task-, relations-, and change-oriented behaviors. Contextual factors, particularly the terms and conditions at diverse levels of the organization, highly affect guideline implementation, either hampering or supporting the leadership. During the pandemic, the first line managers were on their toes, and supported by the willingness to adopt to a new situation across their entire organizations.

Despite poorer conditions for an ideal implementation, the managers found the pandemic benefiting any adoption of guidelines, and they further balanced different **O-MILe** leadership components to meet the novel conditions.

### Discussion

- Are conditions for leadership engagement in knowledge implementation, as described by first line managers in hospital care contexts, addressed enough in implementation theories, models and frameworks and/or facilitated by implementation strategies?
- How can implementation science address organizational structures in healthcare, in favor of better contexts for implementation leadership?

### Challenges

The pandemic restrictions instigated telephone interviews, rather than face-to-face, calling for careful approaches to ensure a sheltered forum for sharing experiences. Observations of first line managers' actual enactment of their implementation leadership would have enriched the data, but was impossible due to the same restrictions.

### Key highlights

- A crisis can render first line managers an arena where their implementation skills can thrive.
- Optimizing and cutting the decision routes of a healthcare organization can enable first line managers to exercise their everyday leadership behaviors in favor of faster and better guideline implementation.