

Using and Adapting the Leadership & Organizational Change for Implementation (LOCI) strategy across two hybrid implementation trials in children’s services

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Using LOCI to Improve Digital Measurement-based Care Implementation in Community Mental Health

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DISC/IN STEP
Implementation Science
Seminar
March 2024

Working to
Implement &
Sustain
Digital
Outcome
Measures



Trial registration: [clinicaltrials.gov \(NCT04096274\)](https://clinicaltrials.gov/ct2/show/study/NCT04096274)



Acknowledgements & Disclosures



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I have no other conflicts of interest or disclosures to report.

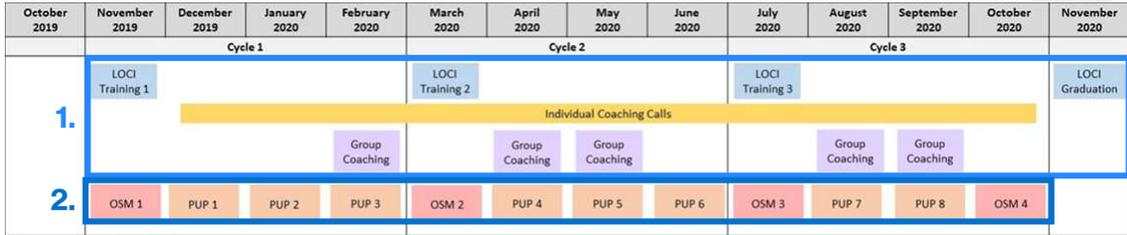


WISDOM Trial: Problem & Aims

Measurement-based care is an evidence-based practice that improves the clinical outcomes of mental health services; however, it is rarely used in practice, especially with youth, and when it is, fidelity is often poor. **How can we change this?**

- **Aim 1:** Test the effects of the Leadership & Organizational Change for Implementation (LOCI) strategy on youth-level MBC fidelity and symptom improvement in outpatient mental health clinics serving youth
- **Aim 2:** Test the mechanisms that explain LOCI's effects on MBC fidelity.





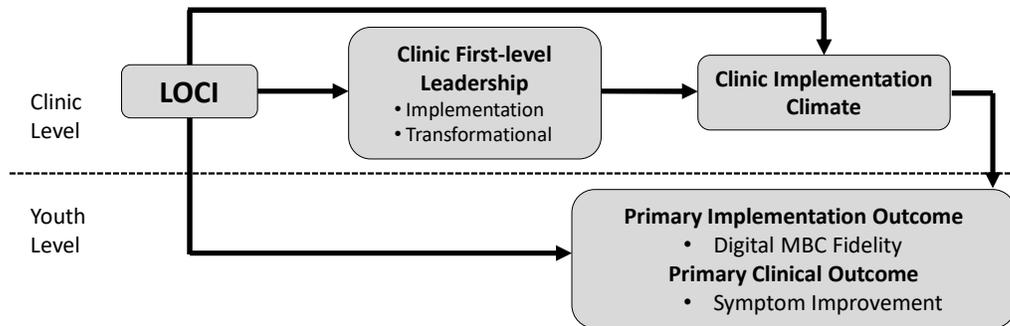
*PUP = Progress Updates & Planning
 *OSM = Organizational Strategy Meeting (share survey data; develop and refine climate development plan)

The Leadership & Organizational Change for Implementation (LOCI) Strategy



(Aarons et al., 2015; Aarons et al., 2017; Aarons et al., 2014; Egeland et al., 2019; Skar et al., 2022; Sklar et al., in press)

LOCI Theoretical Model (as applied in the WISDOM Trial)

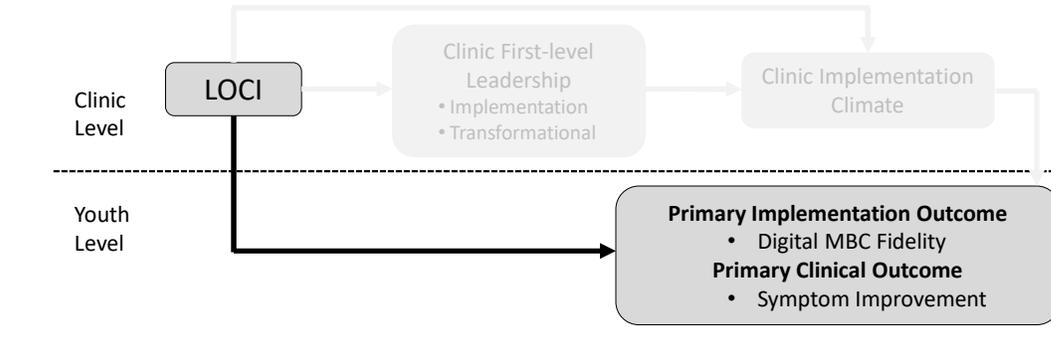


(Williams et al., in press)

Primary Outcomes

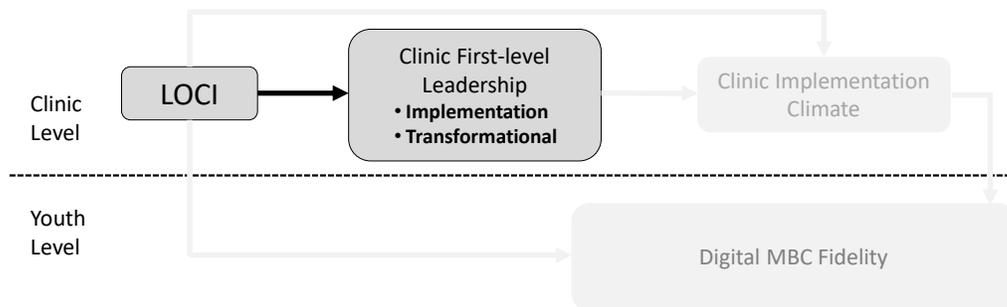
H1: Youths served by LOCI clinics will experience superior MBC fidelity relative to those served by clinics that receive training and technical assistance only

H2: Youths served by LOCI clinics will experience superior symptoms improvement relative to those served by clinics that receive training and technical assistance only

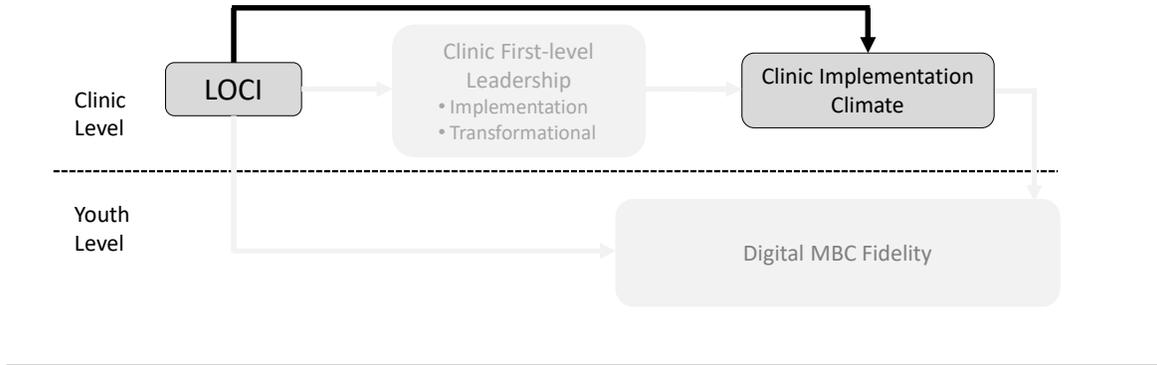


Mechanisms

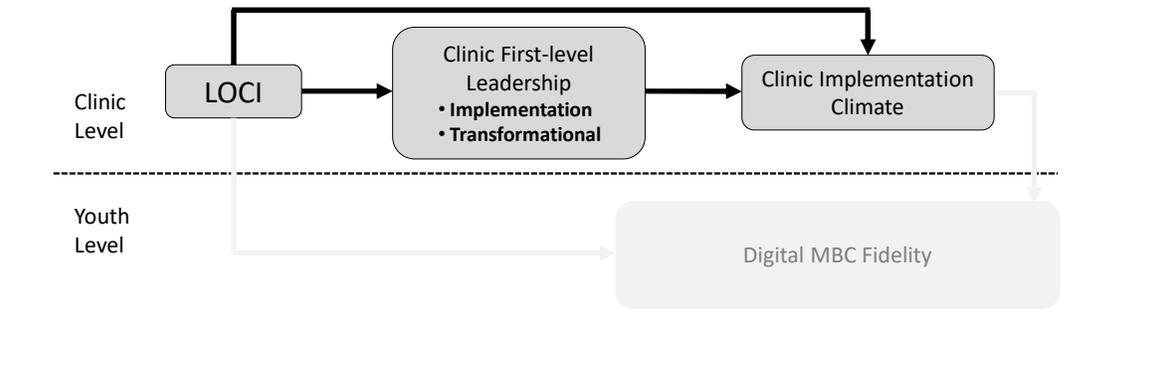
H3: LOCI will improve **implementation leadership** and **transformational leadership** relative to TTA only



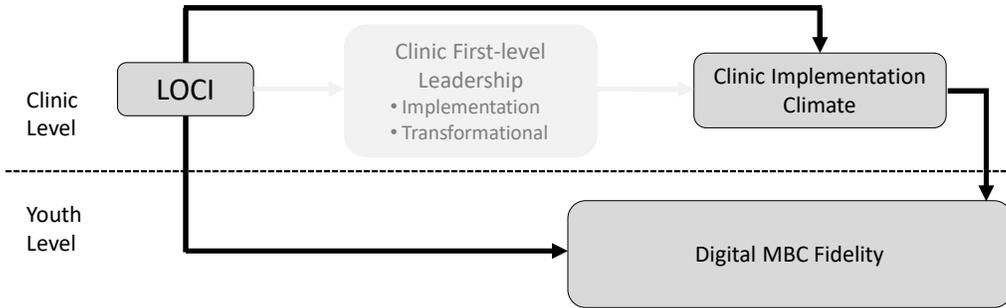
H4: LOCI will improve **Implementation Climate** relative to TTA only



H5: Improvement in **implementation leadership** and **transformational leadership** at time 2 (4 months) will mediate LOCI's effect on **Implementation Climate** at t4 (12 months)



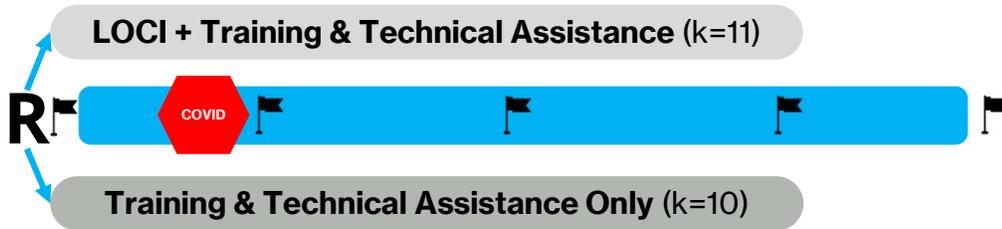
H6: Improvement in **implementation climate** from baseline to t4 (12 months) will mediate LOCI's effect on MBC fidelity



WISDOM Study Design & Measurement

- Cluster Randomized Hybrid Type III Effectiveness-Implementation Trial

Phase 1



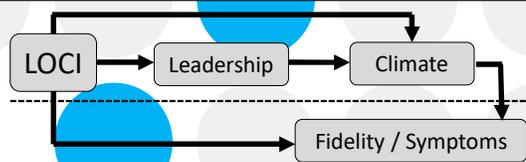
Youth-level Primary Outcomes (N=234)

- Fidelity index (OQ meta-data)
- Symptoms (Caregiver-reported)

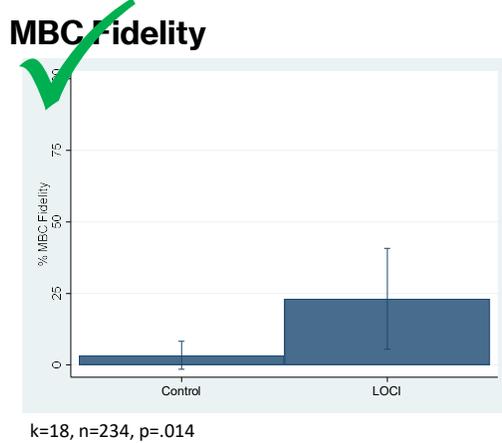
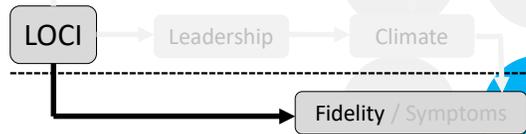
Clinician-Reported Mechanisms (N=252)

- First-level leadership
- Clinic implementation climate

Main Outcomes: Effects of LOCI on Implementation and Clinical Outcomes

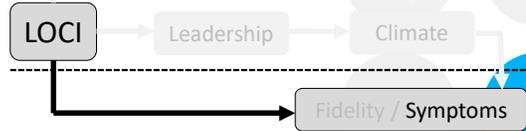


LOCI Effects on Fidelity

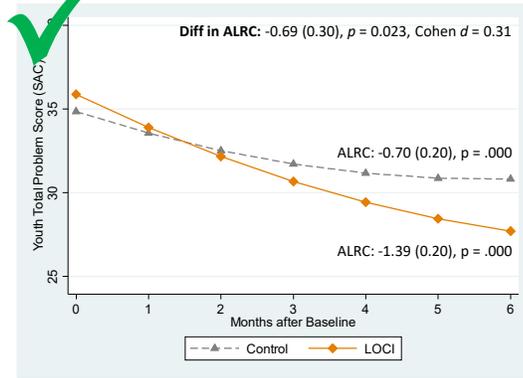


NOTE: All estimates and hypothesis tests are adjusted for covariates of: state, clinic size, and baseline clinic implementation climate.
(Williams et al., 2023)

LOCI Effects on Symptoms

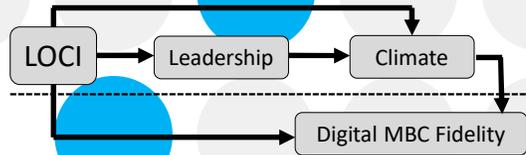


Change in Youth Symptoms



k=18, n=234, $p=.023$, $d=.31$

NOTE: All means, coefficients, hypothesis tests, and effect sizes are adjusted for covariates of: state, clinic size, and baseline clinic implementation climate. (Williams et al., 2023)

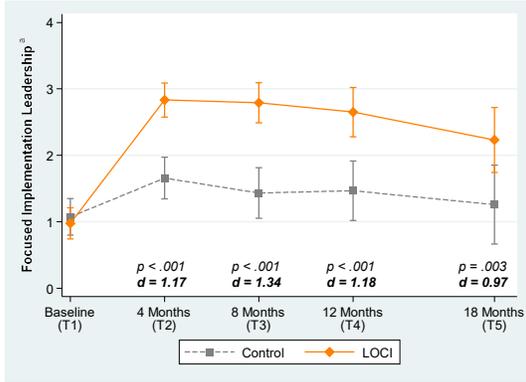


Mechanistic Analyses: Main Effects of LOCI on Leadership & Climate

LOCI Effects on Leadership

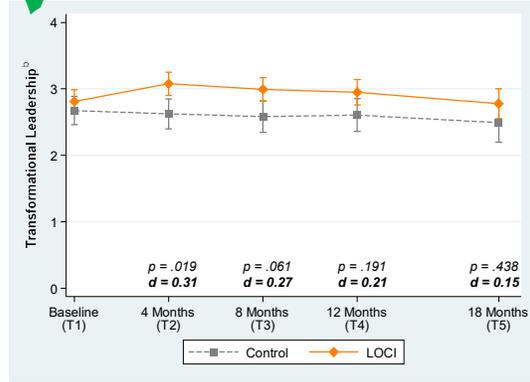


Implementation Leadership



^a K=21 clinics, N=248 clinicians, J=803 observations

Transformational Leadership



^b K=21 clinics, N=251 clinicians, and J=810 observations

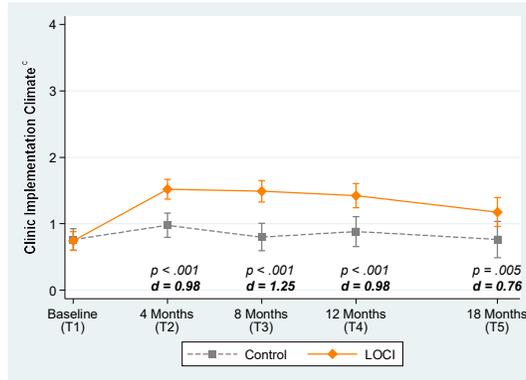
NOTE: All means, coefficients, hypothesis tests, and effect sizes are adjusted for covariates of state and clinic size.

(Williams et al., in press)

LOCI Effects Climate



Implementation Climate

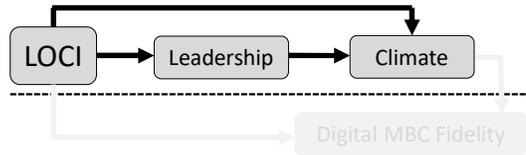
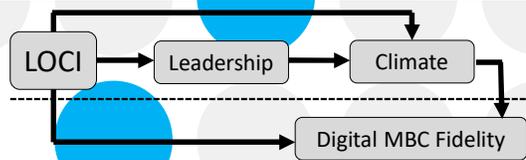


^c K=21 clinics, N=247 clinicians, and J=809 observations

NOTE: All means, coefficients, hypothesis tests, and effect sizes are adjusted for covariates of state and clinic size.

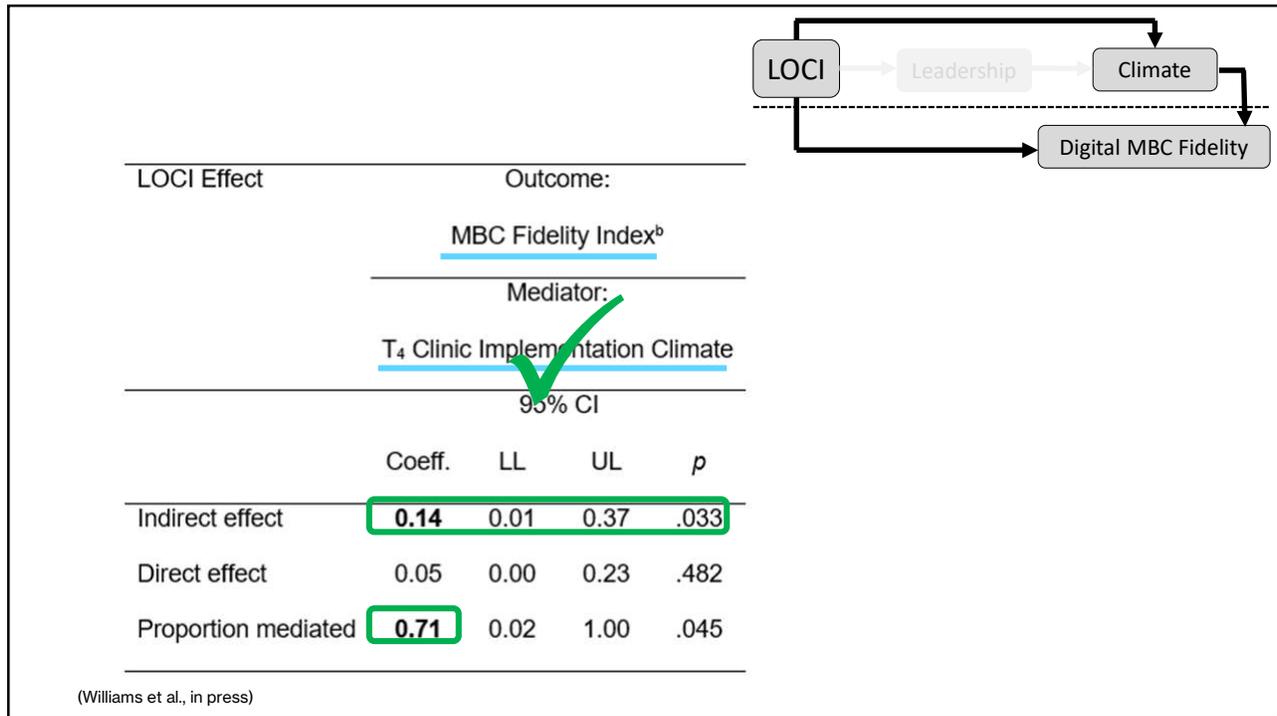
(Williams et al., in press)

Mechanistic Analyses: Indirect Effects of LOCI on Climate & Fidelity

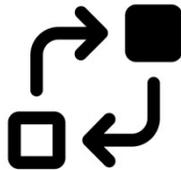


LOCI Effect	Outcome:							
	T ₄ Clinic Implementation Climate ^a				T ₄ Digital MBC Fidelity			
	Mediator: T ₂ Implementation Leadership				Mediator: T ₂ Transformational Leadership			
	95% CI				95% CI			
	Coeff.	LL	UL	p	Coeff.	LL	UL	p
Indirect effect	0.51	0.15	0.95	.004	0.16	-0.05	0.45	.135
Direct effect	0.11	-0.29	0.51	.582	0.38	0.05	0.72	.024
Proportion mediated	0.82	0.25	1.00	.004	0.29	0.00	0.86	.136

(Williams et al., in press)



Key Takeaways



LOCI worked



LOCI's theorized mechanisms of change were (mostly) empirically supported



LOCI should inform policy, training, and practice

Comments / Questions

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