

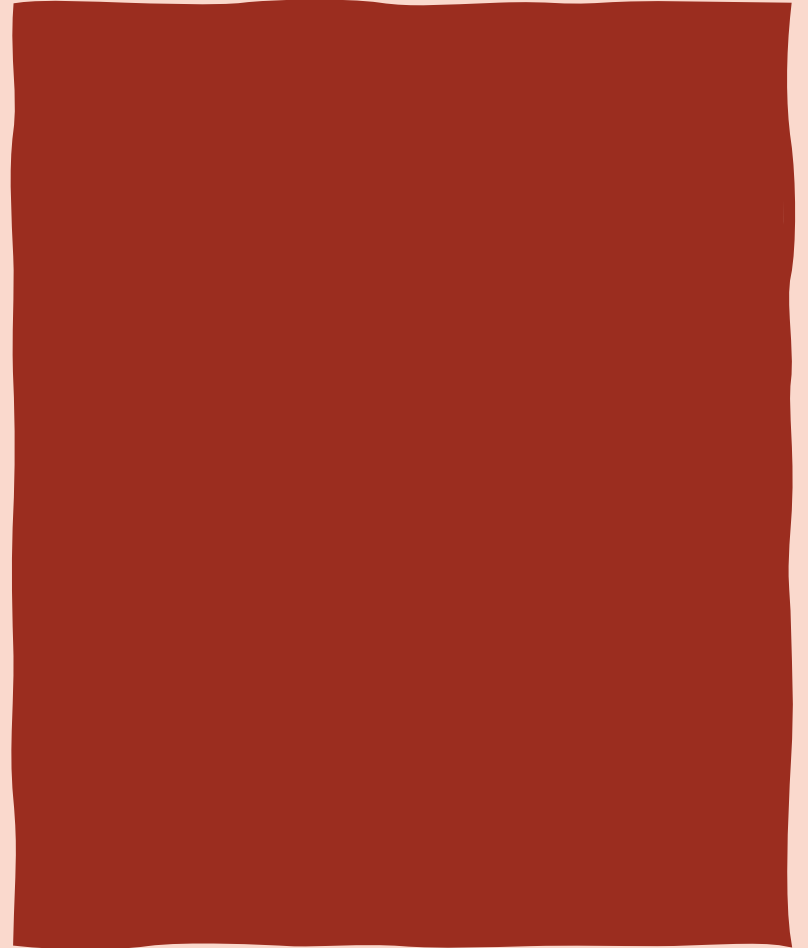
Children Learning Mindfulness Within Head Start Programs: Working with Teachers & Parents

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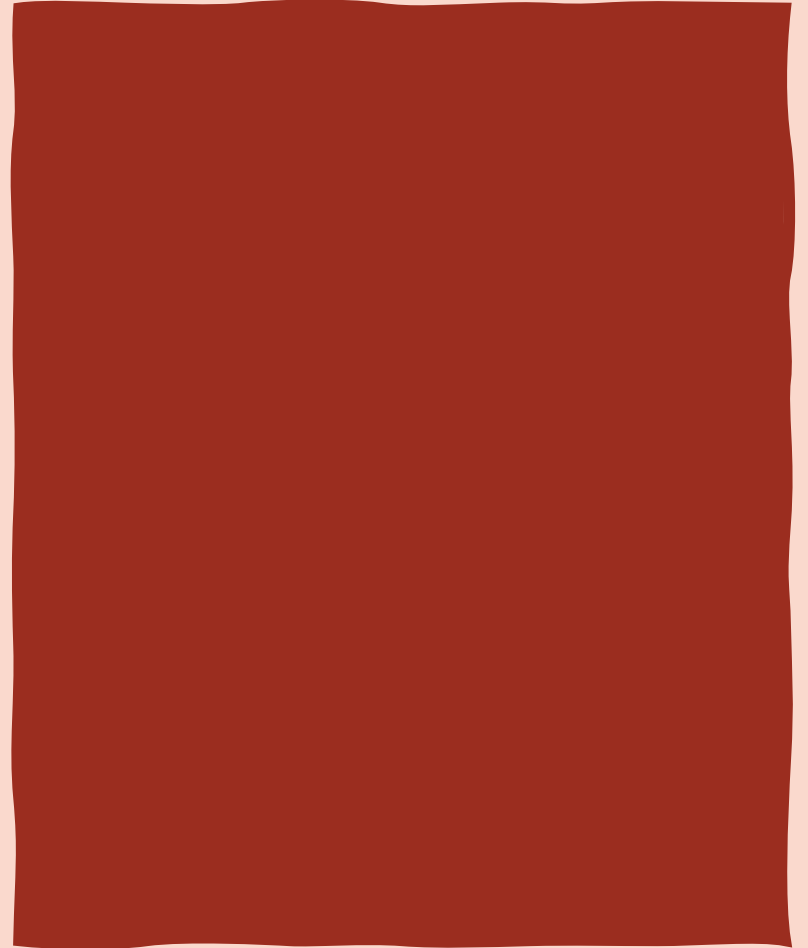
Mindfulness, Self-Compassion, & Family Well-Being Conference
10/19/23



- Poverty rate for young children in the U.S.
 - Child well-being placed in jeopardy by poverty-related stressors
 - Protective factors
 - Optimal caregiving
 - Mindfulness practices in the classroom
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- Mindfulness – *purposeful moment to moment presence and self-awareness of one's breathing, body sensations, emotions, and/or thoughts in a non-judgmental manner* (Bethell, et al. 2016; Kabat-Zinn, 2006)
 - School-based mindfulness programs have grown in number
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School-based mindfulness for preschool-aged children

- Benefits of mindfulness intervention programs across multiple domains for young children, especially for socioemotional and cognitive outcomes than for academic and behavioral indicators (Butzer et al., 2016; Flook et al., 2015; Khaddouma et al., 2015; Maynard et al., 2017; McClelland et al., 2018; Razza et al., 2015; Thierry et al., 2016)
- Which types of mindfulness practices are developmentally appropriate for preschoolers?
 - Focus on awareness of breathing and bodily senses
 - “Mind-body” has been used interchangeably with “mindfulness” (American Academy of Pediatrics, 2016)
 - Existing programs involve breathing, attention, sensorial experiences, kindness, yoga (Flook et al., 2015; Khaddouma et al., 2015; Razza et al., 2015; Schonert-Reichl et al., 2015; Thierry et al., 2016)
- Challenges to implementation

- Collaborative partnerships with Head Start teachers to develop classroom-based mind-body health intervention (Li-Grining et al., 2021)
 - Project CaLM (Children Learning Mindfulness) integrated mindfulness strategies into existing structure of Head Start programs (Li-Grining et al., 2021)
 - Participatory action research (PAR) approach (Fava et al., 2016; Hope et al., 2015; Kidd et al., 2018; Trickett et al., 2011)
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- Participatory action research (PAR) approach (Fava et al., 2016; Hope et al., 2015; Kidd et al., 2018; Trickett et al., 2011)
 - Collaborative partnerships between researchers and community members
 - Valued and respected lived experiences and everyday practices of community members
 - Remaining flexible, adaptable to lived realities of community members
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Overall Goal of Project CaLM

- To foster preschoolers' engagement in mindfulness activities through teachers' behaviors within a PAR framework (Li-Grining et al., 2021)
 - Teachers as “agents of change” (Janz et al., 2019)
- Central to Project CaLM was integration (e.g., the degree to which an intervention fits within an existing system; Bowen et al., 2009)
- Integrate mindfulness activities into classroom routines, where specific routines could serve as a cue, or reminder, to enact new mindfulness practices (Fogg, 2020)
 - Mindful walking at recess
 - Belly breathing at naptime
 - Mindful eating at snack time
 - Mindful observation during transitions
 - Learning about the mind-body connection with storybooks at circle time

Purpose of Pilot Intervention Project

Li-Grining, C. P., Vera, E., Janusek, L., Saban, K., Liston, Y., Naqi, Z., & Troske, M. (2021). Project CaLM: A pilot intervention integrating mindfulness strategies into Head Start classrooms. *Western Journal of Nursing Research*, 43(3), 227–238. doi: 10.1177/0193945920946484

- Investigated the ways in which mindfulness strategies could be integrated into the classroom routines of Head Start preschool programs
- Examined feasibility of Project CaLM from the perspective of teachers
 - Limited- efficacy testing
 - Implementation
 - Feedback on
 - acceptability (e.g., intended use of mindfulness practices)
 - demand (e.g., past use of mindfulness practices)

Method: Project CaLM's Intervention Design

- Flexible mindfulness curriculum, with a focus on sensorial experiences, classroom routines, and picture books (Li-Grining et al., 2021)
- Uses classroom routines as opportunities for teachers to help preschoolers engage in mind-body awareness
- Logic Model
 - *Problem Statement*: Poverty-related risk
 - *Long-Term Goal*: Teachers supporting preschoolers' mind-body health
 - *Short-Term Goal*: Teachers using classroom routines to support preschoolers' engagement in mindfulness activities

Li-Grining, C. P., Vera, E., Janusek, L., Saban, K., Liston, Y., Naqi, Z., & Troske, M. (2021). Project CaLM: A pilot intervention integrating mindfulness strategies into Head Start classrooms. *Western Journal of Nursing Research*, 43(3), 227–238. doi: 10.1177/0193945920946484

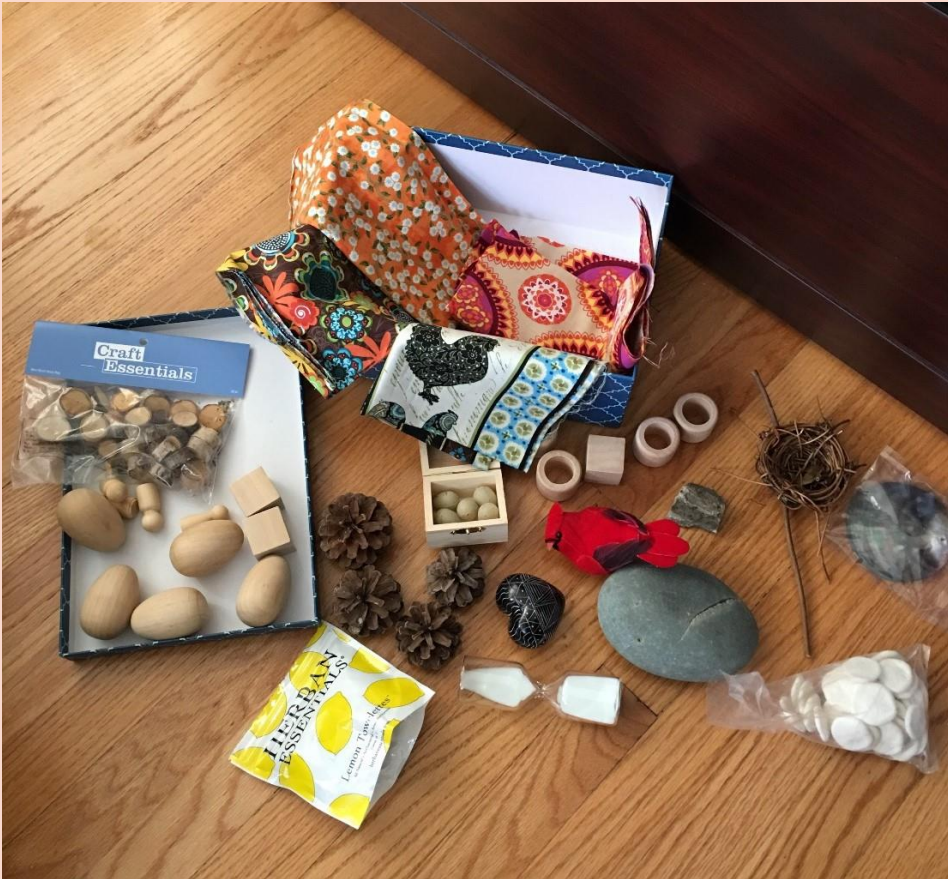
Logic Model (cont'd; Li-Grining et al., 2021)

	Conceptual Frameworks	Intervention Components	Intermediate Outcomes	Long-Term Outcomes
	Participatory Action Research	Classroom Routines <ul style="list-style-type: none">1. Circle time (e.g., books on the five senses)2. Recess (e.g., quiet walk, stretching)3. Nap (e.g., breathing exercises)4. Transitions (e.g., chimes)5. Snack (e.g., eating as a sensory experience)	Self-Regulation	Sleep Quality
	Theories of Behavioral Change	Classroom Materials <ul style="list-style-type: none">1. Nature objects, books, arts & crafts (e.g., mind jars)2. Mindfulness activity reminders3. Mindfulness activity log4. <i>Mindfulness for Teachers</i> book by Patricia Jennings		Behavior Problems
		Meetings between teachers and researchers		Academic Skills

Child intervention components (Li-Grining et al., 2021)

	Classroom Routine	Sense	Activity	Materials
	Circle time	Touch	- Mindful movement	
		Sight	- Show and tell, practice mindful observation - Read & discuss books on mind-body health	- Mindfulness treasure boxes - Books (e.g., <i>Peaceful Piggy Meditation</i> by Maclean)
	Recess	Touch, Sight, Hearing	- Quiet walk, mindful walk	
	Snack time	Taste, Touch, Smell	- Mindful eating	
	Nap	Touch	- Belly breathing, body scan	“Cozies” (i.e., flat stuffed animals)
	Transition	Hearing	- Ring chime with various tones to signal transition from one activity to another	Chime
		Sight	- Watch sand timers and mind jars	- Mind jars - Sand timers

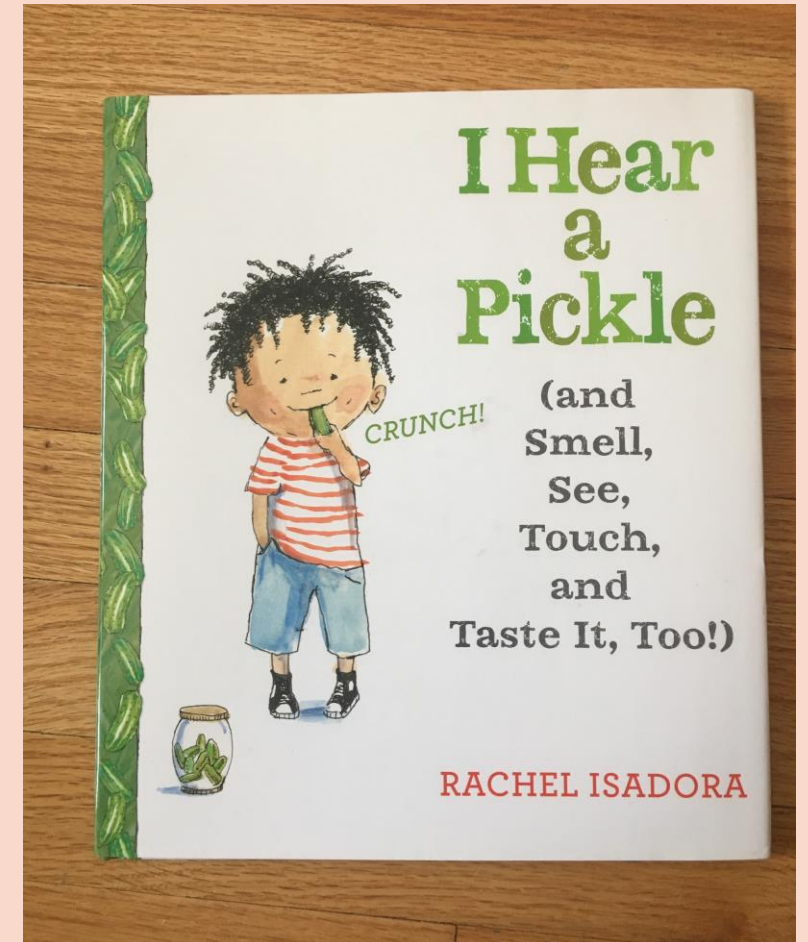




Project CaLM books (Li-Grining et al., 2021)

Title	Author	Topic for circle time discussion
<i>Peaceful Piggy Meditation</i>	Kerry Lee Maclean	Slowing down, breathing exercises, mind jar instructions
<i>Polar Bear, Polar Bear, What Do You Hear?</i> <i>Brown Bear, Brown Bear, What Do You See?</i>	Bill Martin, Jr. & Eric Carle	Five senses
<i>All the World</i>	Liz Garton Scarlan	
<i>From Head to Toe</i>	Eric Carle	Body awareness
<i>Here Are My Hands</i>	Bill Martin, Jr. & John Archambault	
<i>We’re Going on a Bear Hunt</i>	Michael Rosen & Helen Oxenbury	
<i>I Hear a Pickle (and Smell, See, Touch, and Taste It, Too!)</i>	Rachel Isadora	Mindful eating at snack time
<i>Sleep Like a Tiger</i>	Mary Logue	Belly breathing at nap time
<i>Little Cloud</i>	Eric Carle	Look for shapes in clouds at recess

Project CaLM books (cont'd)



Project CaLM books (cont'd): *All the World* by Liz Garton Scarlan



Project CaLM Material for Breathing Activity During Nap Time



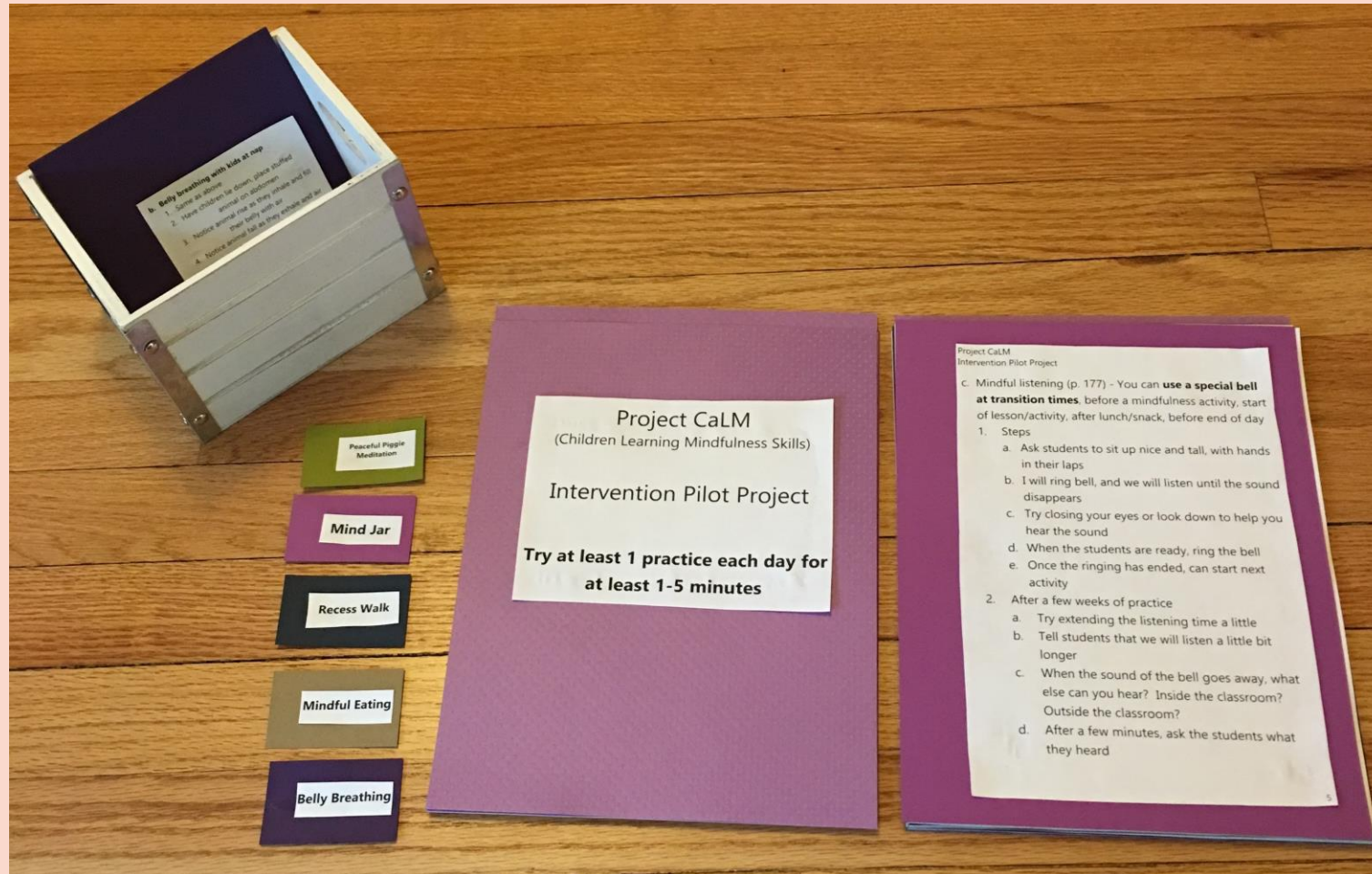
Project CaLM Materials for Mindfulness Activities During Transitions Between Classroom Routines



Project CaLM teacher intervention components & description (Fogg, 2020; Li-Grining et al., 2021; Service & Gallagher, 2017)

Keys to Behavioral Change	Intervention Component
Tie new behavior to existing routines	<ul style="list-style-type: none">- Teacher received a mindfulness log with rows that noted their classroom schedule with types of and times for activities----- Columns included times, classroom routines, and a place for teachers to write down what mindfulness activities they conducted during different routines----- There were also columns for time spent on activities (i.e., 1-59 seconds, number of minutes)
Try different approaches	<ul style="list-style-type: none">- Variety of children’s books- Variety of materials for circle time and other routines (e.g., chimes, sand timers, nature objects of various textures, weights, and sizes, such as small wooden blocks, decorative birds, nests, butterflies, stones, shells)- <i>Mindfulness for Teachers</i> book (Jennings, 2015)
Support from others	Five meetings with researchers spread across eight weeks

Project CaLM Mindfulness Activity Reminders



Project CaLM blocked, cluster randomized controlled trial design

	<i>School A:</i> 3 classrooms ~ 20 children per classroom	<i>School B:</i> 2 classrooms ~ 20 children per classroom
<i>Study 1 Recruitment</i>	<i>Randomized:</i> 3 classrooms ~ 5 children joined classrooms late	<i>Randomized:</i> 2 classrooms ~ 7 children left
<i>Study 1 Allocation</i>	<i>Intervention:</i> 2 classrooms 4 teachers 46 children <i>Control:</i> 1 classroom 4 teachers 19 children	<i>Intervention:</i> 1 classroom 1 teacher 18 children <i>Control:</i> 1 classroom 2 teachers 15 children
<i>Study 2</i>	<i>Interviews with Intervention Group</i> 3 teachers 3 parents <i>Interviews with Control Group</i> 4 teachers 3 parents	<i>Interviews with Intervention Group</i> 1 teacher 6 parents <i>Interviews with Control Group</i> 2 teachers 3 parents

Participants

	%
Child Gender – Female	56.70
Parent Gender – Female	93.20
Race/Ethnicity	
Latino/a/e/x	86.50
Black	6.80
Asian	2.70
White/Non-Latino	4.10
Immigrant Status – Born outside of U.S.	78.40
Parent Education – HS or less	71.90
Marital Status – Single	54.80

Note. Countries of origin among parents born outside of the United States included a wide range of nations, which spanned Central and South America, Asia, and Europe. Most immigrant parents were from Mexico and Ecuador.

Measures

- Self-regulation (Social Skills Rating Scale; Gresham & Elliot, 1990)
- Sleep (Philips Healthcare, 2013)
- Behavior problems (Child Behavior Checklist, CBCL; Achenbach & Rescorla, 2001)
- Academic skills (Letter-Word Identification, Applied Problems, Woodcock-Johnson Psycho-Educational Battery Revised (Woodcock et al., 2001)
- Implementation, acceptability, & demand

Results: Limited-Efficacy Testing

- Often, feasibility research involves assessment of intervention impact with limited statistical power in order to learn more about potential effect sizes and adequate sample size for later phases of intervention development (Bowen et al., 2009)
- Thus, despite having only two sites, we tested for differences in children's well-being across the treatment and control groups
- Continuous scores for each of these indicators of children's well-being were regressed upon a dummy variable that was coded as 1 for the treatment group and 0 for the control group
- Using Stata 14, we first estimated multi-level models, but results suggested that this was not the appropriate approach due to lack of variance
- Thus, we estimated single-level regression models with robust standard errors to take into account heteroskedasticity across classrooms (Gordon, 2015)
- The intervention group was not significantly different from the control group
- However, most findings were in the expected direction

Results: Implementation (Li-Grining et al., 2021)

	Activity Type	Avg. Freq. per Class	Avg. # of Min. Per Class	Routine Variation	Type Variation
	Mindful walk, stretching, movement	23.33	71.33	Recess, large group, and transitions	
	Mindfulness treasure box	5.33	16.00	Large group and transitions	Focus on different objects in mind
	Books on mind-body health	11.33	63.67	Large group and transitions	Focus on one sense per day
	Mindful eating	4.67	12.33	Breakfast, lunch, and snack time	
	Belly breathing	13.00	31.33	Large group, transitions, and nap time	Three breaths, Combine with mindful observation

Results: Implementation cont'd (Li-Grining et al., 2021)

	Activity Type	Avg. Freq. per Class	Avg. # of Min. Per Class	Routine Variation	Type Variation
	Ring chime with various tones	1.67	4.67	Recess and transitions	Signal time to line up to go outside
	Watch mind jars	8.67	25.33	Large group, small group, quiet area, and transitions	Share mind jar with partner
	Watch sand timers	7.00	43.67	Transitions	
	Mindful observation, focus, meditation, body scan	7.00	35.67	Recess, large group, and transitions	Combine with breathing exercise

Results: Teachers' Views on Acceptability for Classroom-Based Mind-Body Health Intervention (Li-Grining et al., 2021)

Views on Project CaLM

"I like the strategies. I feel like they were open-ended enough to where I could put my own spin on it to adjust for my children and my classroom. They weren't rigid activities, it was more giving ideas but using it the way you feel works best in your classroom, which was really effective for me because I was able to pick up on some different strategies to use."

Future use of mindfulness strategies in the classroom and how often

"Once or twice a week. Breathing, relaxing. Drawing activities. Maybe some art supplies."

Results: Teachers' Views on Demand for Classroom-Based Mind-Body Health Intervention (Li-Grining et al., 2021)

Past use of mindfulness strategies in the classroom

"We did the mind jars.... We also did deep breathing and yoga. We incorporated the mindfulness boxes in circle time for focus...."

Interest of other teachers in your classroom

"I don't know if they would follow through on it, but I would definitely want to promote it as strategies...to focus the children and get them to calm down, setting the stage for social and emotional growth and getting to know their emotions and own selves."

Results: Teachers' Views on Use of Mindfulness Strategies at Home (Li-Grining et al., 2021)

Acceptability	
Future use of mindfulness strategies at home and how often	"Belly breathing. Depends. Maybe four times a week."
Demand	
Past use of mindfulness strategies at home	"The breathing technique. Once in a while."
Interest of others at home	"Not familiar. Might be skeptical at first but might try."

Results: Parents’ Views on Acceptability and Demand for Home-Based Mind-Body Health Intervention (Li-Grining et al., 2021)

Acceptability	
Views on Project CaLM strategies	“I think that they are good, it helps [son] a lot. It helps to calm him, by breathing when mom reminds him about it.”
Future use of mindfulness strategies at home and how often	“Would like to do what Project CaLM did, would like to add more (not sure what yet).”
Demand	
Past use of mindfulness strategies at home	“We use them a lot, it has really helped us. We just practice the breathing exercise, we use it every time he cannot relax. Sometimes we use it twice a day.”
Interest of others at home	“Husband got familiar, thinks he would be interested with the kids.”

Discussion

- Risk and resilience of children and families
- Design changes in the context of researcher-community partnership
- Findings in expected direction, interest in building on Project CaLM by Aileen Garcia, Ph.D. (University of Missouri)
- Teachers' implementation exceeded guidelines provided to them
- Intervention appeared acceptable to teachers and parents, seemed to be demand for mindfulness techniques from teachers and parents
- Limitations
- Follow-up parent workshops on mindfulness and sleep routines
- Mindfulness, decolonization, and dismantling of systemic racism
 - Psychology - Thema Bryant, Ph.D. and Shelly Harrell, Ph.D.
 - Social work - Michael Yellow Bird, Ph.D.
- Affordability, sustainability, expanding participatory action research approach



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