



# MetaCIH 2025

Advancing Evidence for  
Complementary and  
Integrative Health  
Interventions

---

**REPORT CREATED BY**

Mindfulness for Health Equity Lab (mHEAL)  
Brown University School of Public Health  
Mindfulness Center, Brown University



**BROWN**  
Mindfulness Center

**METAPSY**



**WISCONSIN**  
UNIVERSITY OF WISCONSIN-MADISON

# TABLE OF CONTENTS



About Us	3
Our Purpose	4
Milestones at a Glance	5
Training and Capacity-Building	6
Timeline Review	7
A Peek at the Literature	8
Papers	9
Goals for 2026	11
Investigative Team	12
Contact Us	15

# About Us

MetaCIH is a comprehensive platform designed to evaluate and synthesize evidence for complementary and integrative health (CIH) interventions, such as mindfulness, yoga, tai chi, acupuncture, and chiropractic care. These approaches are recognized for addressing various psychological and physical conditions across diverse settings. As new findings emerge, MetaCIH efficiently synthesizes information across PICO (populations, interventions, comparisons, and outcomes), evaluates innovative models, and fosters timely reviews and meta-analyses. MetaCIH then provides policymakers, healthcare providers, patients, and other stakeholders with reliable insights to improve health and promote integrative care approaches. Finally, MetaCIH promotes capacity-building by sharing resources, tools, and education that make rigorous evidence synthesis easier to conduct.

---

## A Reflection

We are proud to reflect on the progress made by our MetaCIH team this year. Our team has worked diligently to develop crucial digital infrastructure, conduct evidence screening and coding, and connect with stakeholders across the world. Through an extensive and rigorous training process, we have also worked to build skills and innovation within our international research team. The ground work we established this year ensures that the impact of the MetaCIH will resonate for years to come by advancing scientific rigor and evidence-informed policy making in the field of CIH research.

**Shufang Sun, PhD**

Project Director & Contact MPI  
Associate Professor, Brown University School of Public Health

**Eric Loucks, PhD**

Project MPI  
Professor, Brown University School of Public Health

**Simon Goldberg, PhD**

Project MPI  
Associate Professor, University of Wisconsin-Madison



# Our Purpose



Curate a **living data repository** to drive high-quality evidence synthesis to advance the science of CIH research



Foster **resource sharing, collaboration, and knowledge exchange** on both content and methodologies for evidence synthesis of CIH interventions.



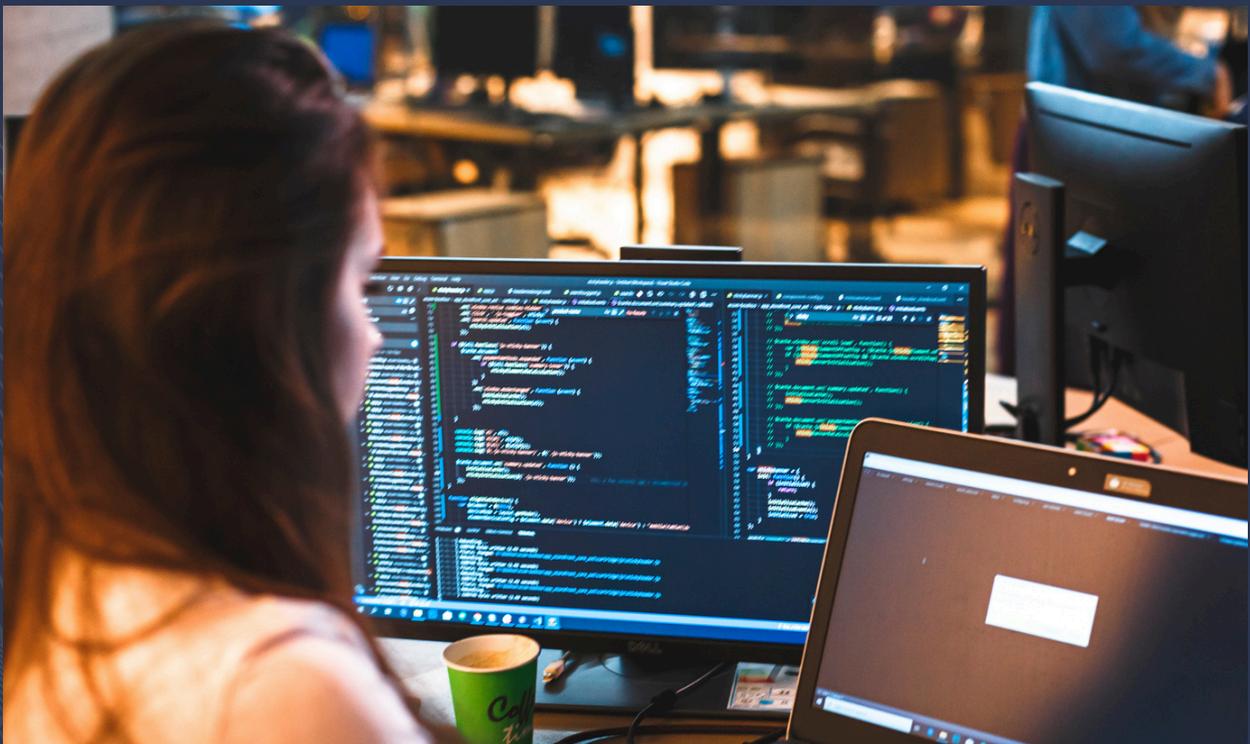
Support knowledge translation from evidence synthesis to **real-world impact** via evidence-informed policy making.

We aim to make complementary and integrative health evidence **ACCESSIBLE FOR EVERYONE.**



# Milestones at a Glance

- **28,168** articles screened
- **~3,370** articles identified for database inclusion
- **14** students trained on review methodology



# Training and Capacity-Building

## Building the next generation of meta-analysis researchers

One of our key goals is to develop training and education to foster skills, collaboration, and innovation within the CIH scientific community. This year, we built a rigorous training system for incoming MetaCIH researchers to introduce them to meta-analytic methods in a hands-on learning environment.



**Taekmin Kenneth Kang, BSc**  
Research Assistant  
Brown University

## Ken's Story

*I've only had limited experience with mindfulness, both in personal practice and in research. Being part of the MetaCIH team has really opened my eyes to the full range of benefits and applications that different CIH interventions have to offer. Working closely with a big team from the very beginning of MetaCIH has also helped me think about the power of review methodologies and how I can incorporate it into my future research—from creating clear procedures to leading a team through iterations of article coding. I am really excited to see everyone's hard work come together as we move into characteristics coding and data extraction, as well as start drawing findings about the current body of literature on CIH interventions.*



# Timeline Review

## SEPTEMBER 2024

Three Community Advisory Board meetings are held, engaging a range of stakeholders in complementary and integrative health.

## JANUARY 2025

Our initial database search is conducted and **28,168** articles are retrieved.

## AUGUST 2025

From initial title and abstract screening, **6,024** articles are identified for further screening.

## DECEMBER 2025

Initial screening of all articles completed. **~3,370** articles identified for database inclusion.



# A Peek at the Literature

From a small sample of 500 out of the 3000+ full-text papers currently being coded, there are...

**125** smartphone-delivered interventions

**57** youth-centered interventions

**122** interventions with **depression** as a primary outcome

**102** interventions with **anxiety** as a primary outcome

**81** trials that tested Mindfulness-based Stress Reduction (**MBSR**)



# Papers

A core mission of MetaCIH is to widely disseminate knowledge on CIH evidence synthesis. In 2025, many papers supported by this grant were submitted and published.

## Under Review



Sun S, Rajasankar V, Giovannone N, Miguel C, Harrer M, van Straten A, Cuijpers P, Loucks EB, Goldberg S. Synthesizing evidence on decades of meditation-based research across populations, comparisons, and outcomes: Protocol for a meta-analytic database of randomized controlled trials. Under peer-review.

## Published



Linardon J, Torous J, Messer M, Liu C, Bell IH, Nicholas J, Goldberg SB. Association between user engagement and clinical outcomes in smartphone apps for depression and anxiety: A systematic review and metaanalysis. *Psychiatry Res.* 2026 Jan;355:116864. doi: [10.1016/j.psychres.2025.116864](https://doi.org/10.1016/j.psychres.2025.116864).



Xie Q, Amo V, Nahum-Shani I, Goldberg SB. Using Digital Technology to Increase Integration of Meditation into Daily Life: The Case for Meditation-Based Ecological Momentary Interventions. *J Technol Behav Sci.* 2025 Nov 19;. doi: [10.1007/s41347-025-00568-1](https://doi.org/10.1007/s41347-025-00568-1).



Treves IN, Chen YY, Wilson CL, Verdonk C, Qina Au J, Pustejovsky JE, Goldberg SB, Mehling W, Schuman Olivier Z, Khalsa SS. A meta-analysis of the effects of mindfulness meditation training on self-reported interoception. *Sci Rep.* 2025 Nov 6;15(1):38889. doi: [10.1038/s41598-025-22661-4](https://doi.org/10.1038/s41598-025-22661-4).

- Small-to-medium positive effect on interoception across all studies



## Other Published Papers



Rousmaniere T, Goldberg SB, Torous J. Large language models as mental health providers. *Lancet Psychiatry*. 2026 Jan;13(1):7-9. doi: [10.1016/S2215-0366\(25\)00269X](https://doi.org/10.1016/S2215-0366(25)00269X).



Creswell JD, Goldberg SB. The meditation app revolution. *Am Psychol*. 2025 Aug 7;. doi: [10.1037/amp0001576](https://doi.org/10.1037/amp0001576).



Linardon J, Messer M, Anderson C, Liu C, McClure Z, Jarman HK, Goldberg SB, Torous J. Role of large language models in mental health research: an international survey of researchers' practices and perspectives. *BMJ Ment Health*. 2025 Jun 12;28(1). doi: [10.1136/bmjment-2025-301787](https://doi.org/10.1136/bmjment-2025-301787).



Torous J, Linardon J, Goldberg SB, Sun S, Bell I, Nicholas J, Hassan L, Hua Y, Milton A, Firth J. The evolving field of digital mental health: current evidence and implementation issues for smartphone apps, generative artificial intelligence, and virtual reality. *World Psychiatry*. 2025 Jun;24(2):156-174. doi: [10.1002/wps.21299](https://doi.org/10.1002/wps.21299).



Treves I, Bajwa Z, Greene KD, Bloom PA, Kim N, Wool E, Goldberg SB, Whitfield-Gabrieli S, Auerbach RP. Consumer-Grade Neurofeedback With Mindfulness Meditation: Meta-Analysis. *J Med Internet Res*. 2025 Apr 17;27:e68204. doi: [10.2196/68204](https://doi.org/10.2196/68204).



Linardon J, Xie Q, Swords C, Torous J, Sun S, Goldberg SB. Methodological quality in randomised clinical trials of mental health apps: systematic review and longitudinal analysis. *BMJ Ment Health*. 2025 Apr 12;28(1). doi: [10.1136/bmjment-2025-301595](https://doi.org/10.1136/bmjment-2025-301595).



Hassanpour P, Buchwald S, Mehta AHP, Goldberg SB, Walsh K. Sexual Violence and Shame: A Meta-Analysis. *Trauma Violence Abuse*. 2026 Jan;27(1):240-255. doi: [10.1177/15248380241308828](https://doi.org/10.1177/15248380241308828).



# Goals for 2026



Complete data extraction and upload data into a user-friendly, publicly-accessible data repository.



Conduct high-quality evaluate the efficacy across meditation interventions.

Publish methodological papers to guide work in this area.



# Investigative Team

## PRINCIPAL INVESTIGATORS



**Shufang Sun, PhD**  
Project Director and  
Contact MPI  
Brown University



**Simon Goldberg, PhD**  
Project MPI  
University of Wisconsin-  
Madison

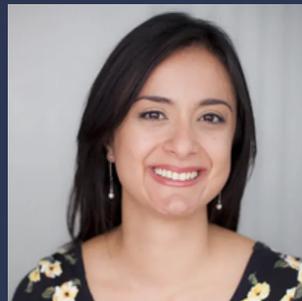


**Eric Loucks, PhD**  
Project MPI  
Brown University

## CONSULTANTS



**Pim Cuijpers, PhD**  
Professor Emeritus  
Vrije Universiteit  
Amsterdam



**Eirini Karyotaki, PhD**  
Professor  
Universiteit van  
Amsterdam



**Clara Miguel Sanz**  
PhD Candidate  
Vrije Universiteit  
Amsterdam



**Mathias Harrer, PhD**  
Assistant Professor  
Vrije Universiteit  
Amsterdam



**Annemieke van  
Straten, PhD**  
Professor  
Vrije Universiteit  
Amsterdam



**Paula Kuper, MSc**  
Research Assistant  
Otto von Guericke  
University Magdeburg



# Investigative Team

## RESEARCH TEAM



**Nikole Giovannone, PhD**  
Project Manager  
Brown University



**Vedhalakshmi Rajasankar, MPH**  
Research Assistant  
Brown University



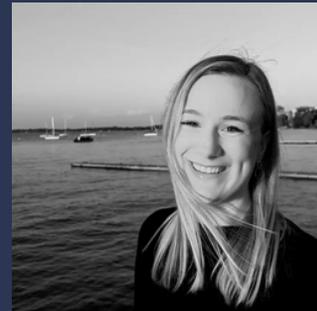
**Chloe A. Chen**  
Research Assistant  
Brown University



**Taekmin Kenneth Kang**  
Research Assistant  
Brown University



**Wendy Lau, PhD**  
Research Associate  
University of Wisconsin-Madison



**Caroline Swords**  
PhD Student  
University of Wisconsin-Madison



**Qiang Xie**  
PhD Candidate  
University of Wisconsin-Madison



**Zoey Dangleman**  
Undergraduate Student  
Brown University



**Grace Li**  
Undergraduate Student  
Brown University



# Investigative Team

## RESEARCH TEAM



**Iris (Yiqi) Huang**  
**MS Student**  
University of Wisconsin-  
Madison



**Cecelia Nam**  
**Research Specialist**  
University of Wisconsin-  
Madison



**Alaina Srivastav**  
**Research Specialist**  
University of Wisconsin-  
Madison



**Violet Park**  
**MPH Student**  
Brown University



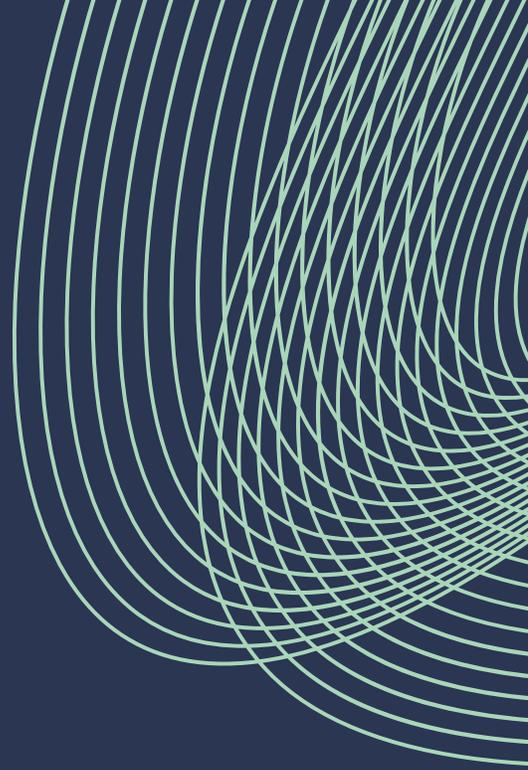
**Lingyi Zhu, MA**  
**Volunteer**  
The George Washington  
University



**Ven. Sucandra (Alena  
Gripass), MA, CNP**  
**Volunteer**  
Chung Huong Institute,  
California Institute of  
Integral Studies



# QUESTIONS? CONTACT US.



**MetaCIH**  
Complementary & Integrative Health  
Collaborative Network

[mheal@brown.edu](mailto:mheal@brown.edu)  
<https://metacih.metapsy.dev/>

---