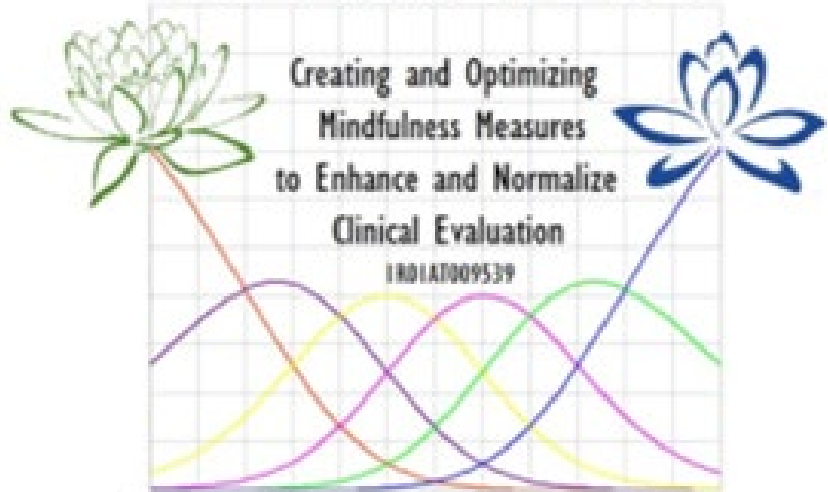
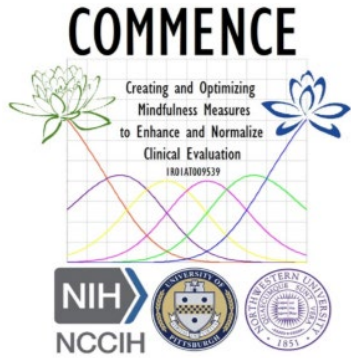


COMMENCE



Mindful Measures: Creating Item Banks of Mindfulness Using PROMIS[®] Methodology

Stephen J. Suss Jr., BS
University of Pittsburgh



Disclosures – no conflicts of interest:
Research funding: NIH, NCCIH
R01 AT009539-02(S1)



Stephen J Suss Jr, BS, Research Associate
PIs: David Victorson, PhD, Carol M Greco, PhD
Northwestern University & University of Pittsburgh

What is Mindfulness?

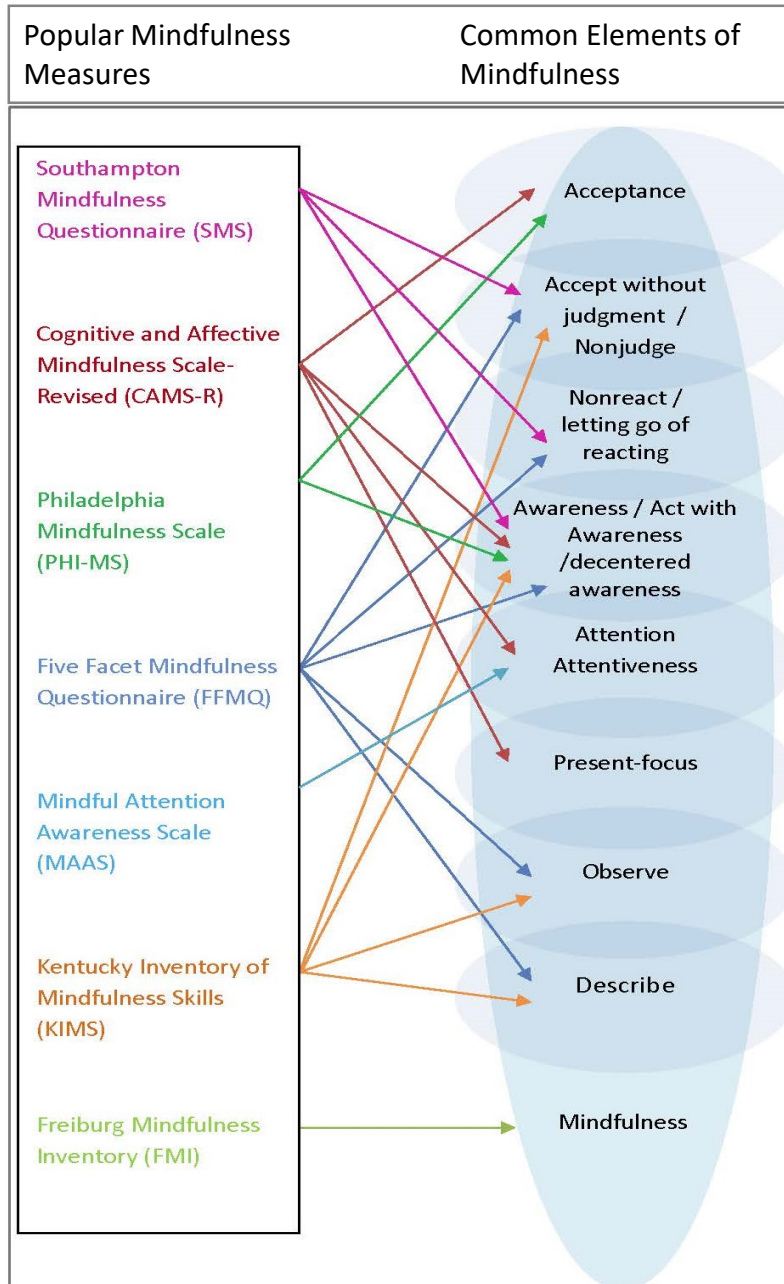


Mind Full, or Mindful?

Why Measure Mindfulness?

- Mindfulness-based Interventions (MBIs) have been associated with a number of mental and physical health benefits:
 - Lower perceived and physiological stress^{1,2}
 - Lower depression and anxiety¹
 - Lower self-reported pain³
 - Improved well-being¹
 - Improved coping ability and affect⁴
- However, measuring mindfulness has remained a challenge
 1. McCauley, A., Rodriguez, M., Zerubavel, A. (2018) Mindfulness.
 2. Pascoe, M., Thompson, D., Jenkins, Z., Ski, C. (2017) Journal of Psychiatric Research.
 3. Morone, N., Greco, M., Moore, C. et. al. (2016) JAMA Intern Med.
 4. Grossman, P., Ludger, N., Schmidt, S., Walach, H. (2004) Journal of Psychiatric Research.





What Makes Measuring Mindfulness So Hard?

- There are several problems with current measures:
 - Varying theoretical conceptualizations
 - Psychometric issues
 - Possible response shift
 - Possible bias
 - Pragmatic issues

In so many words...

- We still lack a comprehensive and standardized self-report measurement system for mindfulness.
- This makes it difficult to assess whether the health benefits associated with MBIs are due to increased mindfulness.
- COMMENCE uses PROMIS[®] methodology to create a precise and concise measurement system for mindfulness.

Aim 1

The development of new mindfulness item banks



Aim 2

Calibration of these new banks and score linking to legacy measures



Aim 3

Validation of new mindfulness short forms in ongoing MBIs

COMMENCE: Specific Aims

Aim 1: Item Bank Development



A systematic literature search on mindfulness measures and constructs

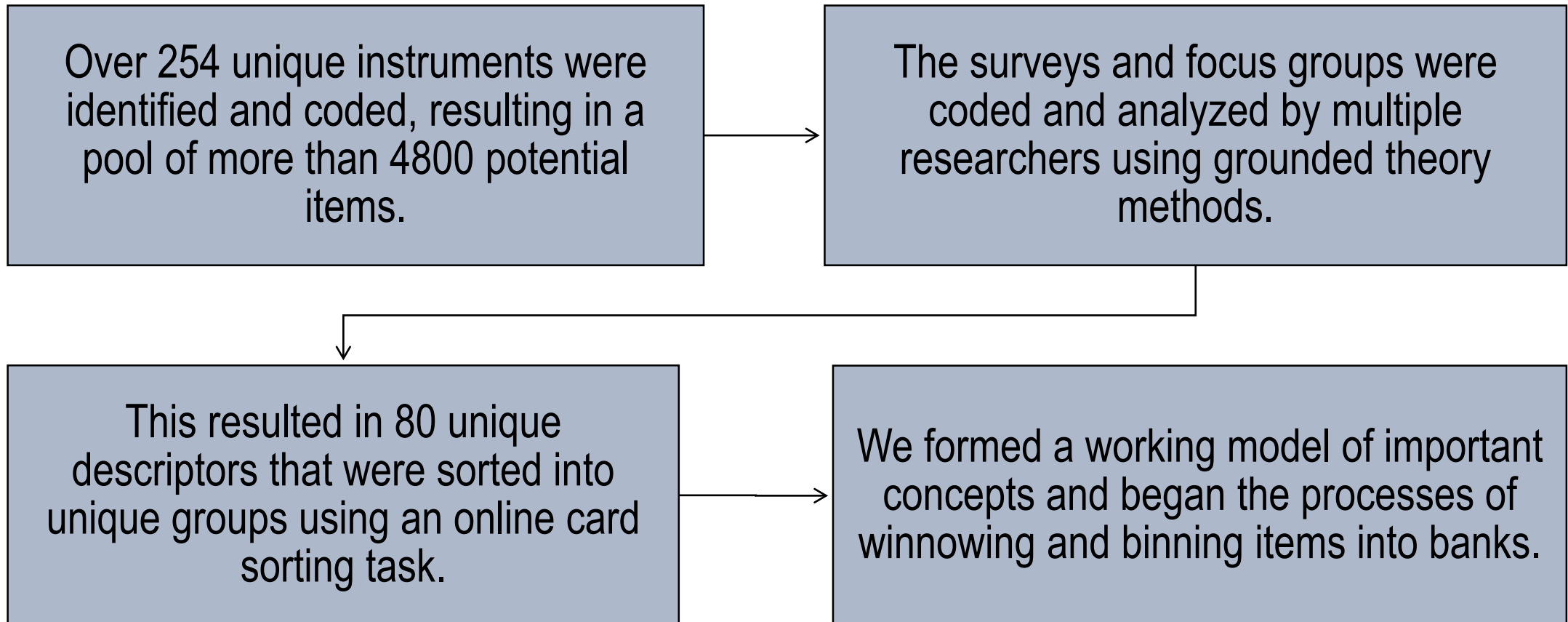


Online surveys with mindfulness teachers, practitioners, and researchers (n = 60)



Six focus groups with mindfulness teachers and practitioners (n = 42)

Aim 1: Item Bank Development Cont.



Proposed Domains (Then)

| <u>Cluster/Domain</u> | <u>Additional Descriptors</u> |
|-------------------------------------|--|
| 01: Awareness | Awareness of body, environment, sensations, emotions, thoughts, judgment, reactivity, etc. |
| 01: Attention/Concentration | Focus, noticing, absorption, observing, etc. |
| 02: Acceptance/Allowance/Letting Be | Non-judgment, non-attachment, letting go, etc. |
| 02: Non-reactivity/Pausing | Stepping back, patience, slowing down, decentering, distress tolerance, etc. |
| 02: Flexibility/Perspective-Taking | Self-regulation, equanimity, balance, choice, intention, etc. |
| 03: Ethics/Values | Ethical discernment, morality, living by values, being a better person, skillful actions, etc. |
| 03: Open-heartedness | Empathy, kindness, metta, self-compassion, gratitude, joy, embodied presence, etc. |
| 04: Beginner's Mind | Curiosity, fascination, investigation, etc. |
| 04: Wise/Clear-Mindedness | Insight, wisdom, clarity, discernment, etc. |
| 04: Impermanence/Direct experience | Just being, present moment, seeing things as they are, changing continuously, etc. |
| 05: Universality/Interconnectedness | Suspension of self, no separation, connection, etc. |
| 05: Ease/Flow/Space | Lightness, boundlessness, spaciousness, openness, groundedness, |

Proposed Domains (Now)

Awareness

Open-heartedness

Attention

Clear-Mindedness

Non-Reactive Acceptance

Interconnectedness

What's Next?

Wrapping up Aim 1

- Item rewriting
- Write new items for descriptors that lack them
- Cognitive interviews to assess item clarity



Aims 2 & 3: Calibration and Validation



- Calibrate the new instrument on an online sample (n = 4200) and confirmed mindfulness experts (n = 500)
- Create computer adaptive tests (CATs) and short forms
- Link new mindfulness banks to legacy measures and create cross-walk tables
- Validate the new short forms on those completing an 8-week MBI (n = 250)

In Summary...

- Despite other advancements in MBI research, we still lack a standardized and comprehensive self-report system for mindfulness.
- COMMENCE responds to this lack by employing PROMIS® methodology to the creation of a new measurement system of mindfulness.
- This new measurement system will improve the rigor and reproducibility of MBI results and further advance MBI research.

Thank you for your attention!

Research team:

- University of Pittsburgh: Carol Greco, Paul Pilkonis, Mary Lou Klem, Natalia Morone, Lan Yu, Kelly Johnston, Nathan Dodds, Christine McFarland, Sarah Daehler
- Northwestern University: David Victorson, Ben Schalet, Judy Moskowitz, Jason Ong, Liz Addington, Carly Maletich, Mo Satyshur, Bruriah Horowitz, Katie Jackson, Christina Sauer
- And gratitude to all of our amazing participants

