A MIXED-METHODS FEASIBILITY AND ACCEPTABILITY TRIAL for MINDFULNESS-BASED WELLNESS AND RESILIENCE AMONG INTERDISCIPLINARY PRIMARY CARE TEAMS

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Cultivating mindfulness in health care professionals: A review of empirical studies of mindfulness-based stress reduction (MBSR)

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ABSTRACT

Demands faced by health care professionals include heavy caseloads, limited control over the work environment, long hours, as well as organizational structures and systems in transition. Such conditions have been directly linked to increased stress and symptoms of burnout, which in turn, have adverse consequences for clinicians and the quality of care that is provided to patients. Consequently, there exists an impetus for the development of curriculum aimed at fostering wellness and the necessary self-care skills for clinicians. This review will examine the potential benefits of mindfulness-based stress reduction (MBSR) programs aimed at enhancing well-being and coping with stress in this population. Empirical evidence indicates that participation in MBSR yields benefits for clinicians in the domains of physical and mental health. Conceptual and methodological limitations of the existing studies and suggestions for future research are discussed.
Moving Forward

Training models within the work setting that enhance resilience & wellbeing among IPCTs
  ◦ Methods to enhance feasibility for onsite delivery
  ◦ Cultural considerations specific to primary care
  ◦ Utilization of team processes
Effective Teams

Team Cohesion:
Quality & frequency of collaboration and communication

- protective factor against burnout$^1$
- associated with increased retention rates among nurses$^2$
- associated with reduced stress among physicians$^3$

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Effective Teams

- Increased prosocial behaviors
- Intrapersonal skills
- Altruistic orientation

Mindfulness

Team Cohesion

Resilience and Wellbeing

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Moving Forward

Objective measurement of adherence to mindfulness practice
  ◦ frequency and intensity of mindfulness practice required to create and sustain effects
  ◦ providers’ preferences regarding mindfulness and resilience practices
Designed to increase resilience and reduce burnout among primary care teams

Utilizes empirically-based practices from MBSR and Mindful Practice curricula

Embodies theory and science of mindfulness, stress and resilience, self-compassion, and team processes \(^7\text{-}12\)
Unique Features

- **Provided** to intact primary care teams during paid, protected time
- **Nine**, weekly 60 minute sessions
- **Formal and informal mindfulness exercises** are modified and practical to primary care
- **Relevant** research findings presented weekly
- **Stress is redefined** and values are articulated
- **Mindful observing, listening, and speaking** is practiced weekly.
- **Teams create strategies** to integrate mindfulness and resilience practices into the work day

Mindfulness-Based Wellness & Resilience

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Mindfulness

Compassion, communities, and connecting with values

Resilience

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Method

Mixed-Methods Research Design

- Quasi-experiential, waitlist controlled trial conducted in a safety-net primary care medical center
Aim One

- To assess the **feasibility and acceptability** of Mindfulness-Based Wellness and Resilience (MBWR) among IPCTs.
Aim Two

- To **assess the preliminary efficacy** of MBWR among IPCTs.
Aim Two
Quantitative Outcomes

The Brief Resilience Scale\textsuperscript{13}

The Maslach Burnout Inventory\textsuperscript{14}

The Five Facet Mindfulness Questionnaire-Short Form\textsuperscript{15}

The Self-Compassion Scale-Short Form\textsuperscript{16}

The Team Climate Inventory\textsuperscript{17}
  - Safety of Participation Factor

Expectancy/Credibility Questionnaire\textsuperscript{18}

Collected at Baseline, Post-MBWR, and 3-Month Follow-up
Aim Two
Qualitative Outcomes

- Focus groups were conducted one week following MBWR.
- Open-ended electronical anonymous surveys one week following MBWR.
- Audio recordings of interviews were transcribed verbatim and combined with written responses from surveys.
- Conventional content analysis in which coding categories were derived directly from the text data\textsuperscript{19}
Aim Three

- To investigate the relationships among formal and informal mindfulness practices and post-training outcomes.
## Participants

### INCLUSION CRITERIA

1. Employed by the medical center
2. A member of an IPCT, including medical doctor, nurse, nurse practitioner, behavioral health consultant, physician assistant, medical assistant, or team assistant
3. Willingness to attend five of the eight sessions
4. Consent to complete measures
5. Speaks English

### EXCLUSION CRITERIA

1. Endorsed active psychosis or suicidality
2. Attended a previous pilot study of MBWR

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Baseline assessments

MBWR
Post-assessments
3-Month Follow-Up

Waitlist Control
Post-assessments
3-Month Follow-Up

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Results

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Participants

31 participants
84% identified as female

Identified Ethnicity
- 71% Mexican, Latina, or Puerto Rican
- 20% White
- 6% Asian
- 3% Black
Participant Roles

- MD: 23%
- RN, NP: 23%
- Medical Assistants: 29%
- Physician Assistants: 3%
- Social Workers: 3%
- Pharmacists: 3%
- Team Assistants: 6%
- Others: 10%

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Outcome Measures
Feasibility

Number of participants recruited
- 83% of the potential participant pool

MBWR class attendance
- 88% attendance rate
- All 31 participants were “treatment completers”

Attrition
- 78% completed the measures
Outcome Measures
Acceptability

Items on a Likert-type scale (0 to 6):

- a) How much did you enjoy this course?
  - 87 % Extremely or Very Much
- b) How important was this course?
  - 82 % Extremely or Very Much
- c) Would you recommend this course to a colleague?
  - 100% Definitely
- d) Would you participate in follow-up mindfulness sessions?
  - 100% Definitely
- e) How knowledgeable was the instructor?
  - 100% Extremely/ Very Knowledgeable

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Resilience

Time X Group Interaction
\[ F(1, 23) = 9.50, p = .005 \]

Main effect of group at post-MBWR
\[ d = 1.51, F(1, 26) = 9.25, p < .001 \]

Main Effect of group at 3-Month FU
\[ d = 2.23, F(1, 21) = 20.62, p < .001 \]
Mindfulness

Time X Group Interaction
$F(1,63) = 3.63; p = .06$

Main Effect of group at 3-Month FU
$d = 1.31, F(1,21) = 5.16, p < .03$

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Self-Compassion

Time X Group Interaction
\[ F (1, 27) = 8.05, p = .008 \]

Main effect of group at post-MBWR
\[ d = 1.94, F (1,25) = 8.35, p < .008 \]

Main Effect of group at 3-Month FU
\[ d = 2.23, F (1,21) = 20.62, p < .001 \]
Self-Compassion

• Positively associated with resilience to stress among health care providers
  
• Inversely associated with burnout among medical residents
Post-hoc Analyses

- **Emotional Exhaustion**
  - Reducing physician burnout, even by one-point, is linked with meaningful differences in
    - self-perceived major medical errors\(^{26}\)
    - reduction in work hours \(^{27}\)
    - suicidal ideation \(^{28}\)

![Bar chart showing Emotional Exhaustion levels pre, post, and 3-month follow-up with statistical significance](chart.png)

** d ≥ .80
Post-hoc Analyses

• **Team Cohesion**

Is a protective factor against burnout among physicians and health care providers \(^1, 3\)

**Team Cohesion**

**d ≤ .80**

\(\text{Physicians} \quad \text{Pre} \quad \text{Post} \quad \text{3-Month FU} \)

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Outcome Measures

Adherence

Informal Practice
60% of participants engaged in informal practices daily

Formal Practices
Average total listening time over 8 weeks = 37 minutes (1-94 mins)

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Integrating practices into work day

- 5 minute mindful breathing practice on the agenda for weekly team meetings
- Mindful Scrubbing
- Just This Breath
- Pulse with Presence
- Loving Kindness affirmation prior to entering exam room
- Breath, Body Be
- Cultivating gratitude
- Posting Values
- Mindful Eating or Mindful Walking
- Remind each other simply by being present with each other.
Integrating practices into work day

• 5 minute mindful breathing practice on the agenda for weekly team meetings
• Mindful Scrubbing
• Just This Breath
• Pulse with Presence
• Loving Kindness affirmation prior to entering exam room
• Breath, Body Be
• Cultivating gratitude and sharing with team
• Posting Values and sharing with team
• Mindful Eating or Mindful Walking
• Remind each other simply by being present with each other.
Discussion

Acceptability and Feasibility

- Results suggest that MBWR may be a viable and impactful method to integrate mindfulness, resilience, and teamwork training into the primary care setting.
  - Safety-net primary settings
  - Predominantly Latino providers
Discussion

Preliminary efficacy

◦ Results
  ◦ suggest that the training was successful at enhancing resilience, mindfulness, and self-compassion when compared to wait-list control group
  ◦ illustrate the potential benefits of an institutional commitment to provider well-being
Discussion

Differential Impact of Formal and Informal Practices

- Results support efforts to integrate and emphasize informal mindfulness practices into the workday

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Integration, Communication, Trust

- I breathe deeply for a few seconds before going in a room with a difficult patient and try to maintain curiosity when something is stressful or might cause me to be angry or frustrated. It has been very effective!

- [I have an] improved ability to manage stressful days with simple techniques to rescue balance.

- Posting my values has changed with way I relate to my stress. I can now see that my stress response is assisting me to meet the challenges I face when acting on my values.
Integration, Communication, Trust

• It helped us to have better communication with each other, listen to each other and work as team members.
• I am [able] to speak to my team members more easily and more frequently.

• I am more comfortable with my teammates.
• Taking this course as a team has improved our team dynamic.
• We have more trust among each other.

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How the training could be improved

Longer
More frequent
Monthly Booster sessions

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Limitations

The results of this study must be interpreted with caution.

◦ The small sample size reduced the statistical power.
◦ All measures were self-report questionnaires.
◦ Study was not randomized.

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