

## NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

**Submission Id:** 5936

### **Title**

*A Brief Mindfulness Intervention to Lower Repeat BP in Primary Care*

### **Priority 1 (Research Category)**

Hypertension

### **Presenters**

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### **Abstract**

CONTEXT: Mindfulness-based interventions (MBI) are being studied for their potential role in syndromes of overactive sympathetic tone. Longer-duration interventions have demonstrated reduction of physiological parameters such as systolic blood pressure (Carlton 2007; Loucks 2019; Lee 2020). However, MBI brief enough for the primary care setting have received little attention. Blood pressure control is a major quality KPI impacting reimbursement from insurers for primary care practices. While it is not uncommon for a repeat blood pressure to be lower than the initial reading, it is unknown if this effect could be potentiated by listening to a short mindful breathing exercise while waiting. STUDY DESIGN: Pilot randomized controlled trial. POPULATION: Adult patients 18-85 presenting for ambulatory care with initial BP  $\geq$  140/90. INTERVENTION: Randomization by a computer-based survey on an iPad to receive a 5-minute mindful breathing exercise (intervention) or a 5-minute timer (control). PRIMARY OUTCOME: Percentage of patients in each group whose repeat blood pressure is below 140/90 (at goal). SECONDARY OUTCOMES: 1) Mean absolute change in systolic and diastolic blood pressure readings in each group. 2) Prior experience with and interest in learning mindfulness meditation. RESULTS: Out of 39 patients approached for enrollment, 33 completed the study and 31 had complete data for analysis (15 intervention, 16 control). After intervention or timer, 40% of the intervention group vs 25% of the control group were at goal (NS). Mean BP reduction was 6.5/3.4 in the intervention group and 2.9/0.8 in the control group (p values for SBP and DBP were 0.22 and 0.18, respectively). More than half of participants reported prior experience with mindfulness exercises, 23% regularly and 26% a small amount. 52% were interested in learning more about mindfulness meditation. CONCLUSIONS: Although this pilot study was underpowered to find a significant difference between groups on repeat blood pressure readings, the trend toward higher likelihood of repeat blood pressure reaching goal by 15% could be important for reaching system performance goals and warrants further study. Data interpretation was affected by a small number of significant outliers. The population's prior exposure to mindfulness meditation was an unexpected finding.

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