# SMART-R: Implementation of the Stress Management and Resiliency Training Program for Residents Across Specialties

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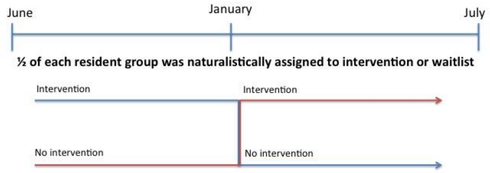
## 1 The Problem

- The consequences of physician burnout extend beyond training – affecting physician health, patient care and safety, and health systems efficiency.[1]
- The SMART-R curriculum is adapted from an evidence-based patient program[6] called the Stress Management and Resiliency Training (SMART) Program. SMART teaches participants:
  - How to elicit the Relaxation Response (RR): meditation, yoga
  - To develop stress awareness skills (SA): cognitive behavioral strategies
  - To adopt adaptive perspectives (AP): positive psychology

## 2 The Aims

- To evaluate the effect of SMART-R on physician burnout and well-being through a multi-site waitlist controlled trial.
- To demonstrate feasibility and acceptability in diverse residency sub-specialty training programs (Neurology, Pediatrics and Psychiatry) and hospital settings (NYU and Weill Cornell).
- To evaluate the impact of baseline mindfulness and self-efficacy scores on rates of physician burnout.
- To evaluate behavior (sleep, exercise, heart rate reactivity) as it relates to resident burnout.
- To continue to iteratively optimize the SMART-R curriculum with feedback from the residents who participate in the curriculum.

## 3 The Action: Analysis of 2014-2015 Pilot Study (Prospective Cohort) Implementation of Multi-site Waitlist-Controlled Trial of SMART-R




www.cnet.com/products/basis-peak/

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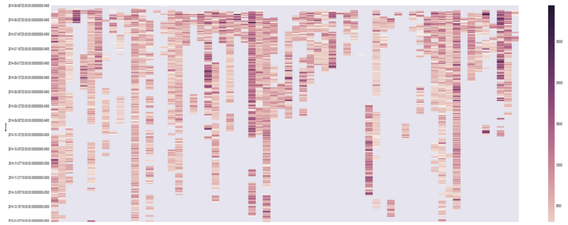
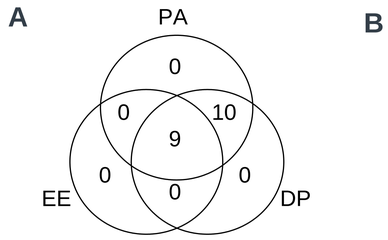
|---|---|
| **Session 1 (2-hr)** | RR: Body Awareness meditation, "Mini" meditations, Mindful eating<br>SA: Energy battery exercise, Stress warning signals, Social supports exercise<br>AS: Goal setting, Letter to self, Appreciation journal |
| **Session 2 (2-hr)** | RR: Body scan, Mindful awareness in daily living<br>SA: Negative automatic thoughts<br>AS: Creating adaptive responses, From pessimism to optimism, Acceptance vs. problem solving coping model |
| **Session 3 (2-hr)** | RR: Idealized self, Contemplation<br>SA: Humor and coping<br>AS: Empathy, Mindful awareness of another, Creative expression |



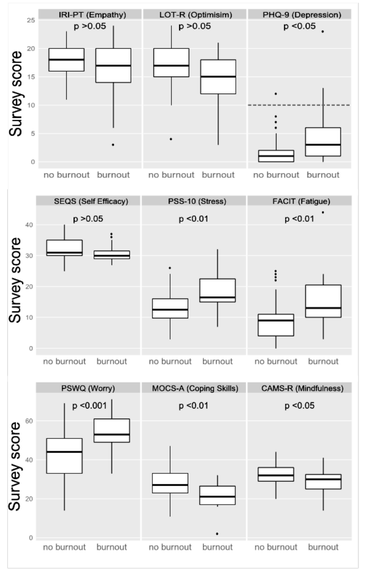
Participants wore health tracking device for measurement of health behaviors: A) Daily step count of participants. Grey portions show missing data. Available readings are plotted as a heatmap of measured absolute values. Vertical axis: time; horizontal axis: participants. Each column represents a single participant, with time proceeding from top to bottom.

## 4 The Impact: Lessons from the Pilot

- Preliminary studies show that mindfulness skills can remedy signs of burnout.[2]
- The most potent contributor to resident burnout is the learning environment[3], however, some residents do not experience burnout.[4]
- An effective remedy will address both *organizational* and *individual* approaches.[5]
- Seventy-five of 85 residents (88%) consented to participate in the study. Of the 75 who consented, 68 completed >90% of surveys (91% response rate).
- Of 68 residents, 19 (28%) met the burnout criteria.
- Burnout was defined as scoring above threshold on the Maslach Burnout Inventory EE (emotional exhaustion) or DP (depersonalization) sub-scale.




**A:** Distribution of Burnout Differentiated by Emotional Exhaustion (EE), Depersonalization (DP) and Personal Accomplishment (PA) Subscales of the Maslach Burnout Inventory
**B**: Differences in Risk and Resilience Factors at Baseline in Residents with Burnout Compared to Those Without Burnout




## Project Significance

### The project is transformative because…

- First study in medical education to use passive data capture to evaluate impact of an educational intervention on behavior and wellbeing.
- To find a solution to physician burnout, we need to understand the cause at the individual and organizational level (culture change)

### This project is scalable by…..

- Streamlined "Train the Trainer" workshop, which has now been implemented at MGH and in New York City for diverse institutions (study sites: NYU Langone, Weill Cornell Medical College), and others.
- Implementation toolkit, which provides provider manual and instructions for implementation

### This project is sustainable by…

- Those trained through the "Train the Trainer" workshops are now champions of the curriculum at their own institutions.
- Developed committee of residents and faculty committed to maintaining "Train the Trainer" workshops as well as "Implementation Toolkit"

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