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2023 Patient Advisor Retreat

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10-26-2023

### BuMP: Burnout Mitigation in Physician Trainees

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#### Recommended Citation

Pflaum-Carlson, Jacqueline; Santarossa, Sara; McLean, Lisa; Hamilton, Julie A.; Murphy, Dana; and Redding, Ashley B., "BuMP: Burnout Mitigation in Physician Trainees" (2023). *2023 Patient Advisor Retreat*. 12.

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# STUDY TITLE:

## BuMP - Burnout Mitigation in Physician Trainees

*Funded by: Blue Cross Blue Shield of Michigan*

### Overview



## PHYSICIAN BURNOUT STUDY

Physician burnout affects healthcare organizations at every level and has been associated with higher self-reported errors, increased turnover, and has a negative impact on patient care; it is estimated that tens of thousands of Americans die each year as a result of preventable medical errors.

This project seeks to reduce the symptoms of physician burnout by exploring **Acceptance Commitment Therapy (ACT)** compared to **Body Mapping** as effective interventions in preventing and mitigating burnout in physician trainees at Henry Ford Health (HFH) in Detroit, Michigan.

### Objectives

Research team will explore two hypotheses in this study:

1. Participation in an intervention group (i.e., Body Mapping, ACT) will decrease physician trainee burnout, as measured by reducing symptoms of stress and anxiety and improving social connectedness and coping strategies, from pre- to post-intervention.
2. Body Mapping compared to ACT will be more effective in preventing and mitigating burnout in physician trainees.

### Study Team

- ***MPI, Dr. Jacqueline Pflaum-Carlson, MD***
- ***MPI, Sara Santarossa, PhD***
- ***Co-I, Lisa McLean, MD***
- ***Julie Hamilton, ACT expert and Physician EAP therapist***
- ***Dana Murphy, PERC team***
- ***Ashley Redding, PERC team***

### Methods

The research team will recruit 20 physician trainees from HFH. Participants will complete a baseline survey, which includes demographic data, and then will be randomized into two arms (10 participants/Arm; see Figure 1)

**Arm 1** (**ACT**) will undergo 3 hours of a virtual ACT based series, 1 hour for each session. ACT combines values and mindfulness with self-acceptance and has promising results in adults suffering with anxiety, depression and PTSD related to traumatic events.

**Arm 2** (**Body Mapping**) will have 6 hours total divided into 3 sessions of a virtual art-based therapy that includes the time needed to create their art pieces (i.e., life size art pieces). Body Mapping uses a series of exercises to create life-size human body images through various mediums such as drawing, painting, or other art-based mediums; accompanied by stories and keys to decipher the body map.

#### Surveys:

- Baseline survey (given at consent)
  - collect information on demographic data including, but not limited to: age, race, ethnicity, marital status, current living situation, specialty, year of residency, sexual orientation, education, household income, current treatment for mental health, current sources of burnout, if they themselves had COVID, severity if they did, impact on their families (i.e., did they take it home).
- Pre-intervention survey (given prior to the intervention ) & Post-intervention survey (given immediately following the last session in both Arm 1 and 2)
  - Pre/post-intervention surveys will ask questions about stress, anxiety, depression, coping, and social support. Our primary outcome is burnout. Burnout will be measured using The Maslach Burnout Inventory™ (MBI) for medical personnel specifically. This 22-item measure is considered the “gold standard” for measuring burnout, encompassing 3 scales: emotional exhaustion, depersonalization, and personal accomplishment.

#### Analysis:

A series of paired t-tests will be used to compare the pre-test and post-test results of each intervention group (Body Mapping vs. ACT). The survey values will each be assessed to determine if there is a change due to treatment effect for each group. Additionally, an independent samples t-test will assess differences by group within each time point.

### Expected Outcomes & Impacts

Body Mapping compared to ACT will be more effective in preventing and mitigating burnout in physician trainees because of the flexibility and individuality allowed through artistic expression. Employing a hands-on modality with varied art mediums allows participants the opportunity to choose what they are most comfortable with and to express themselves in a unique and personal way. If Body Mapping appears superior to ACT in the outcome variables, then healthcare institutions can apply this method to physician trainees (and physicians) undergoing other traumatic work events such as sudden loss of a patient or involvement in a hospital risk event, mass casualty events, or unexpected patient outcomes.

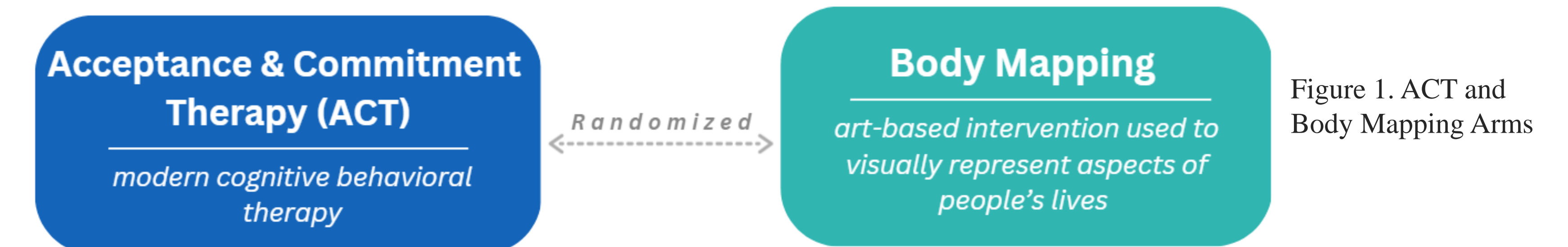


Figure 1. ACT and Body Mapping Arms