

“Healing the Healers”

Improving the Mental Health and Well Being of Healthcare Providers During the COVID-19 Pandemic: A Parallel Population Study Investigating the Reduction of Burnout and Enhancement of Well Being through the Transcendental Meditation Technique

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Introduction I

- Transcendental Meditation (TM) is a mind-body program that allows the practitioner to experience progressively quieter, less excited states of mental activity, with the growing experience of restful alertness in mind and body. It has been found to be effective in reducing adverse mental health outcomes, including burnout, emotional exhaustion, depression, anxiety, insomnia, and trauma symptom severity, and in increasing resilience and other positive factors.
- Studies of TM benefits include:
 - A randomized controlled trial with 40 academic physicians at University of Loyola Stritch Medical School, Chicago, showed practice of TM decreased burnout, depression, and sleep problems over a 4-month intervention period
 - A recent phase II clinical trial published in Lancet Psychiatry and funded by the U.S. Department of Defense indicated efficacy of TM to reduce PTSD symptoms, depression, and total mood disturbance, and improve overall quality of life in veterans with documented PTSD.

Introduction II

- In a randomized controlled study conducted at the University of Pennsylvania Medical School, patients practicing TM showed significant decrease in depression compared to a control group participating in a health education intervention over six months.
- A meta-analysis on anxiety reporting on 1295 subjects found that TM significantly decreases anxiety, with a large effect size and compared to other meta-analyses, TM was observed to exhibit a larger effect size than other forms of meditation.
- A randomized controlled study with TM in a high stress environment indicated significant decreases in burnout, depression, and perceived stress over a 4-month intervention period. A follow-up RCT showed corroboration of the findings on burnout as well as a significant increase in resilience. Further research on TM has shown increased resilience across various groups as well as improvement in other social-emotional health factors such as self-actualization, emotional intelligence, and positive coping behavior.
- Based on the numerous studies on the benefits of TM and considering the dramatically increased Health Care Provider (HCP) burnout in the hospital setting associated with the COVID pandemic this study was designed to evaluate the potential benefit of TM on HCP burnout and stress related symptoms.

Study Design

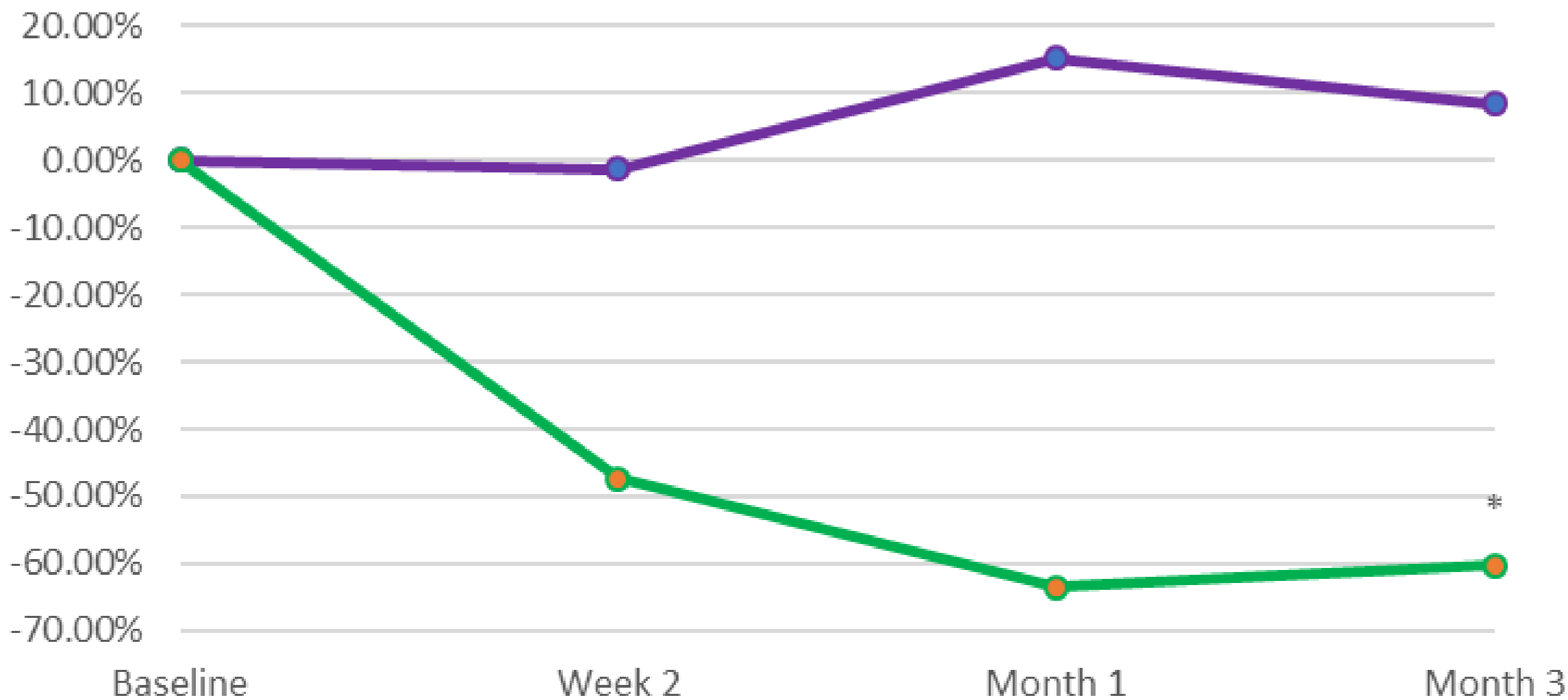
- Sixty-five HCPs affiliated with the three Miami inpatient hospitals (Mercy, Baptist and Encompass) were instructed in the TM Technique.
- A control group practicing Life As Usual (LAU) of Sixty-Five HCPs at the 3 hospitals were recruited, and matched to the best extent possible for gender, age, type of HCP (doctor, nurse, etc.), and work schedule (e.g., days, nights, etc.).
- Study outcomes assessed by validated measures (through online portals):
 - Insomnia Severity Index
 - Maslach Burnout Inventory
 - Brief Symptom Inventory
 - Warwick Edinburgh Mental Well Being Scale
- Assessed at baseline, 2 weeks, 1 month, and 3 months (through online portals)
- Daily Diaries for the TM group
- One hundred and twenty three subjects completed the trial through one month and 116 completed the three month endpoint

Validated Measures

- Brief Symptom Inventory
 - 5-point rating scale used to gather patient-reported data to measure psychological distress and psychiatric disorders in medical and community populations
- Insomnia Severity Index
 - 7-item scale, measuring severity of sleep problems
- Maslach Burnout Inventory
 - 22-item inventory with a seven-point response scale, measuring emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items)
- Warwick Edinburgh Mental Well Being Scale
 - 14-item scale with 5 response categories that cover both feeling and functioning aspects of mental wellbeing.

Composite Final Data

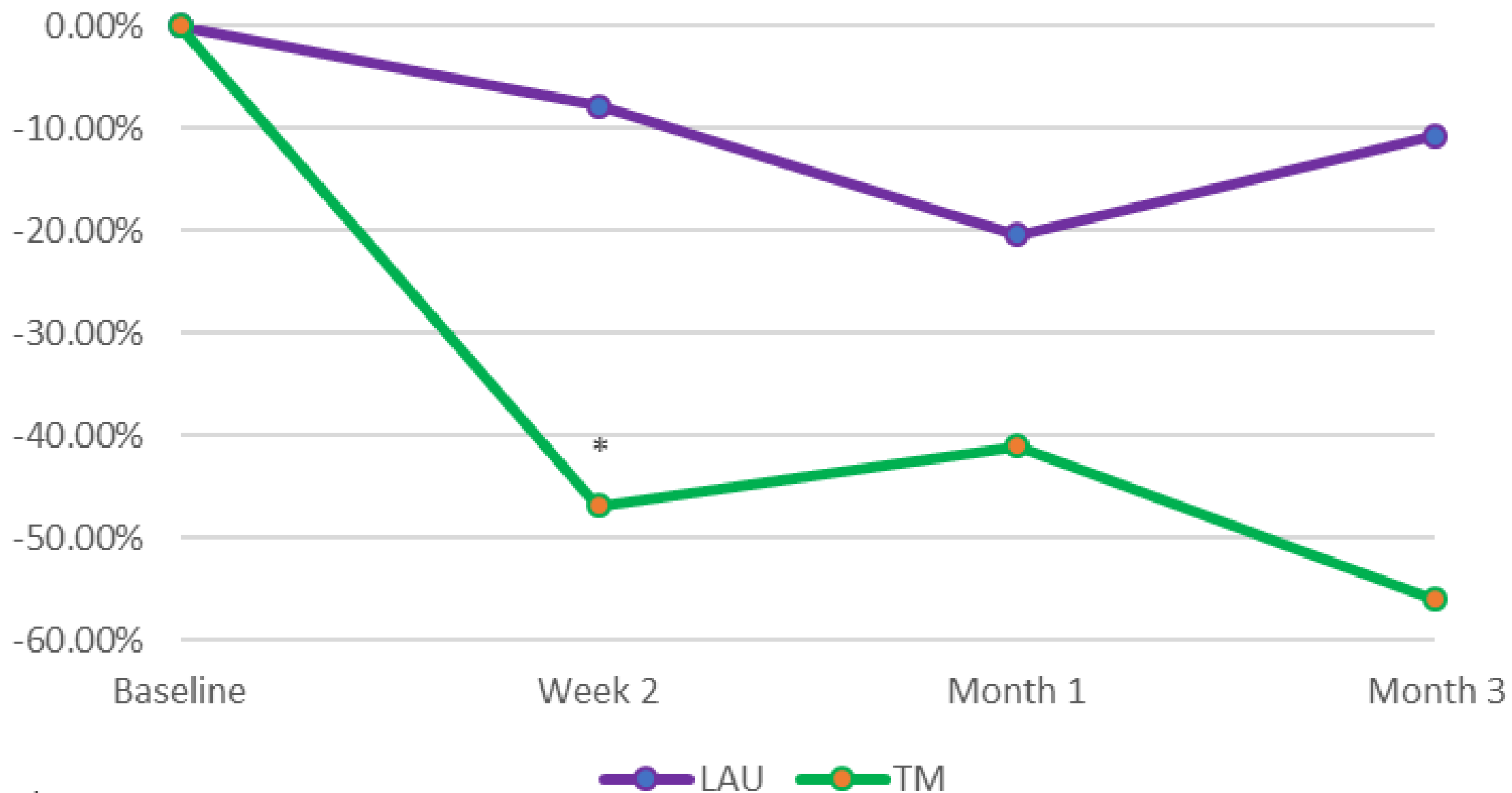
BSI I: Somatization % Change (Composite)



* $p < 0.03$

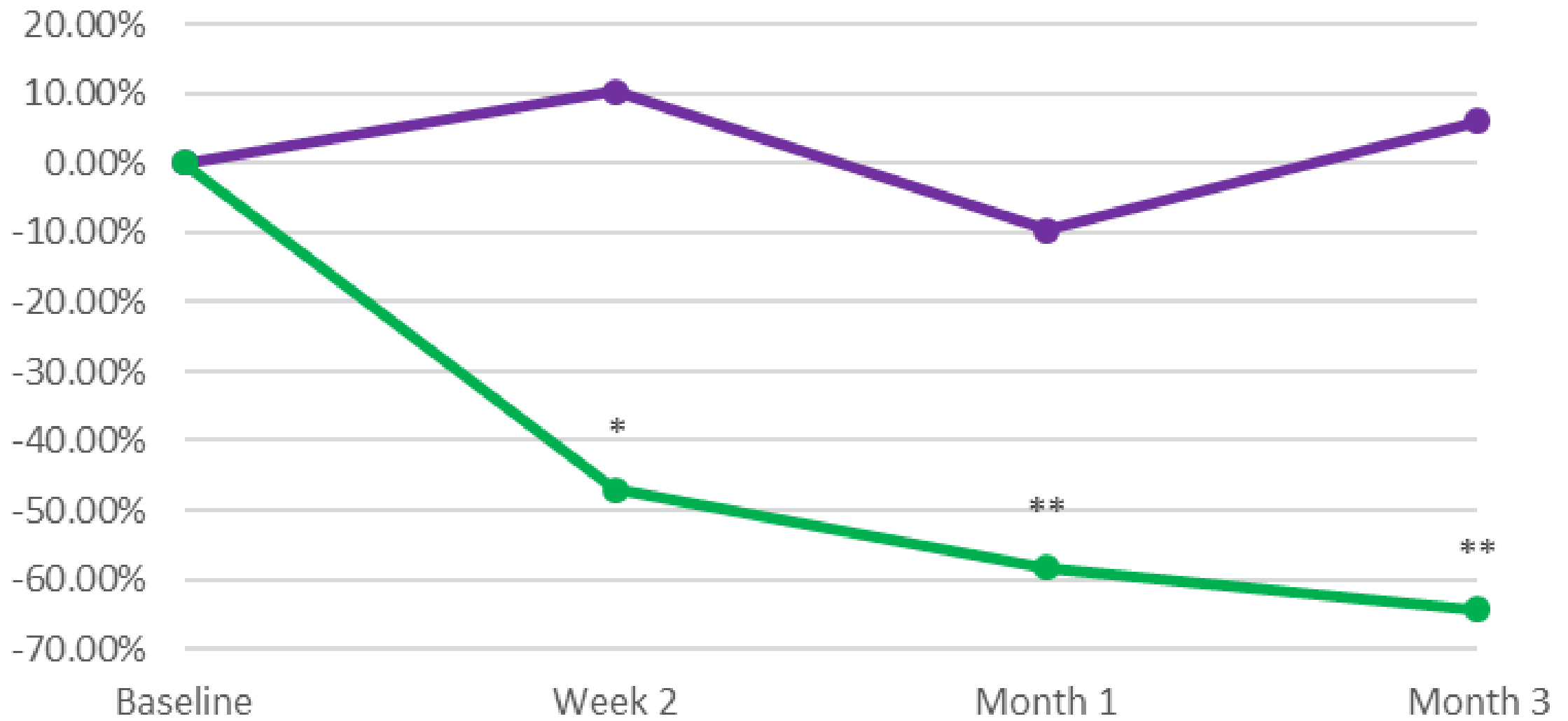
—●— LAU —●— TM

BSI 2: Depression % Change (Composite)



* $p < 0.03$

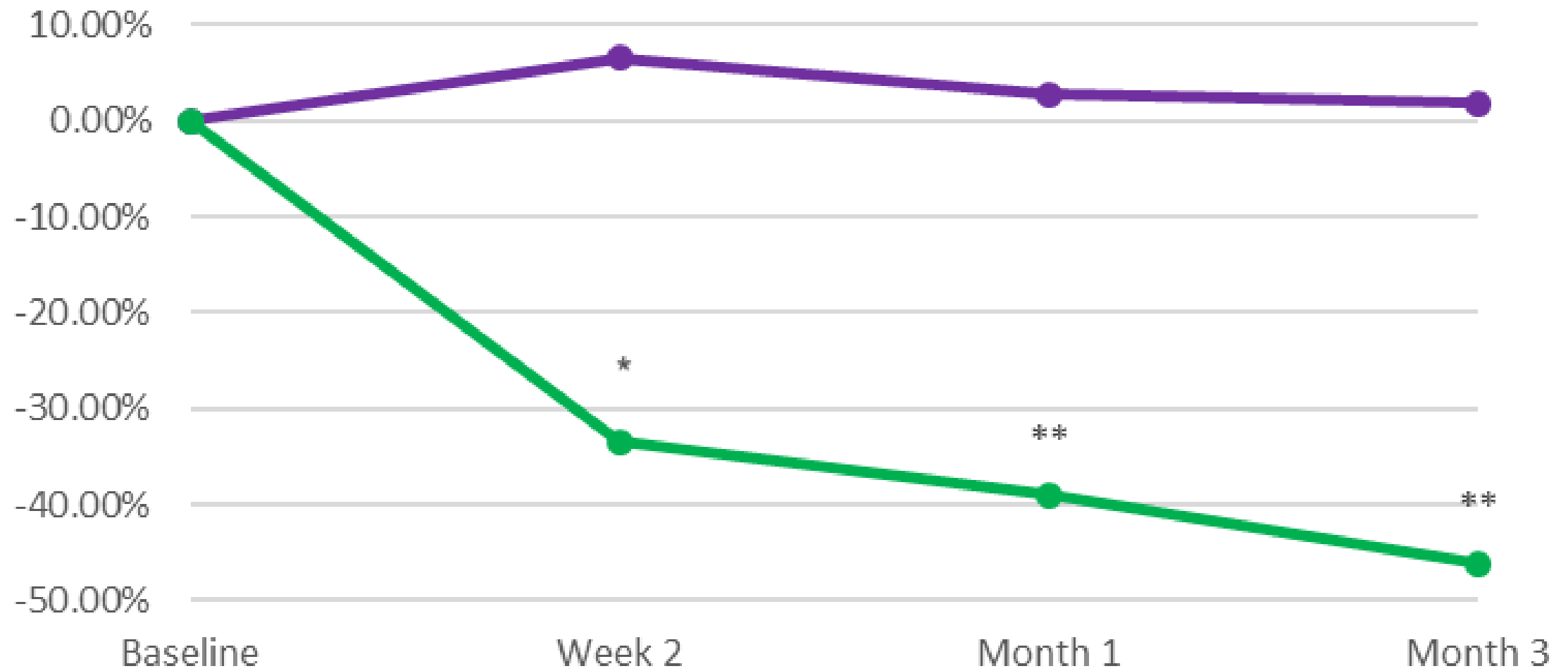
BSI 3: Anxiety % Change (Composite)



* $p < 0.01$ ** $p < 0.001$

—●— LAU —●— TM

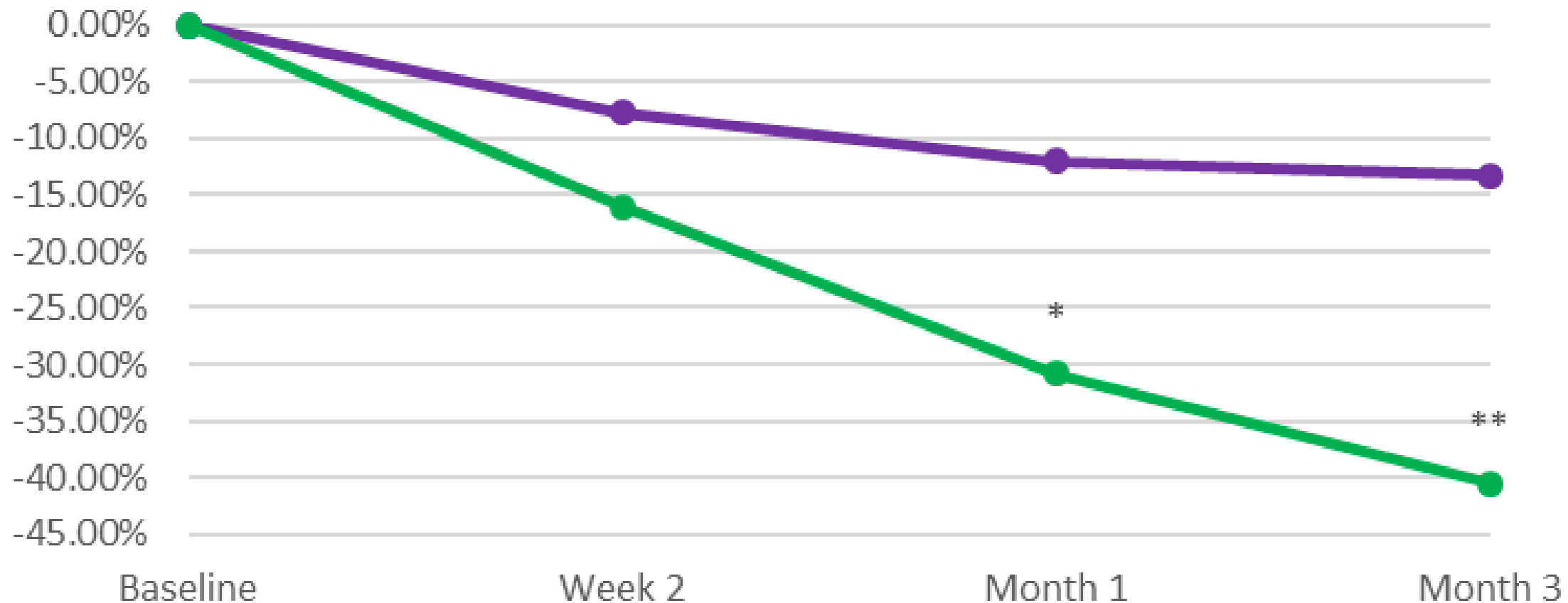
ISI % Change (Composite)



* $p < 0.00005$ ** $p < 0.002$

—●— LAU —●— TM

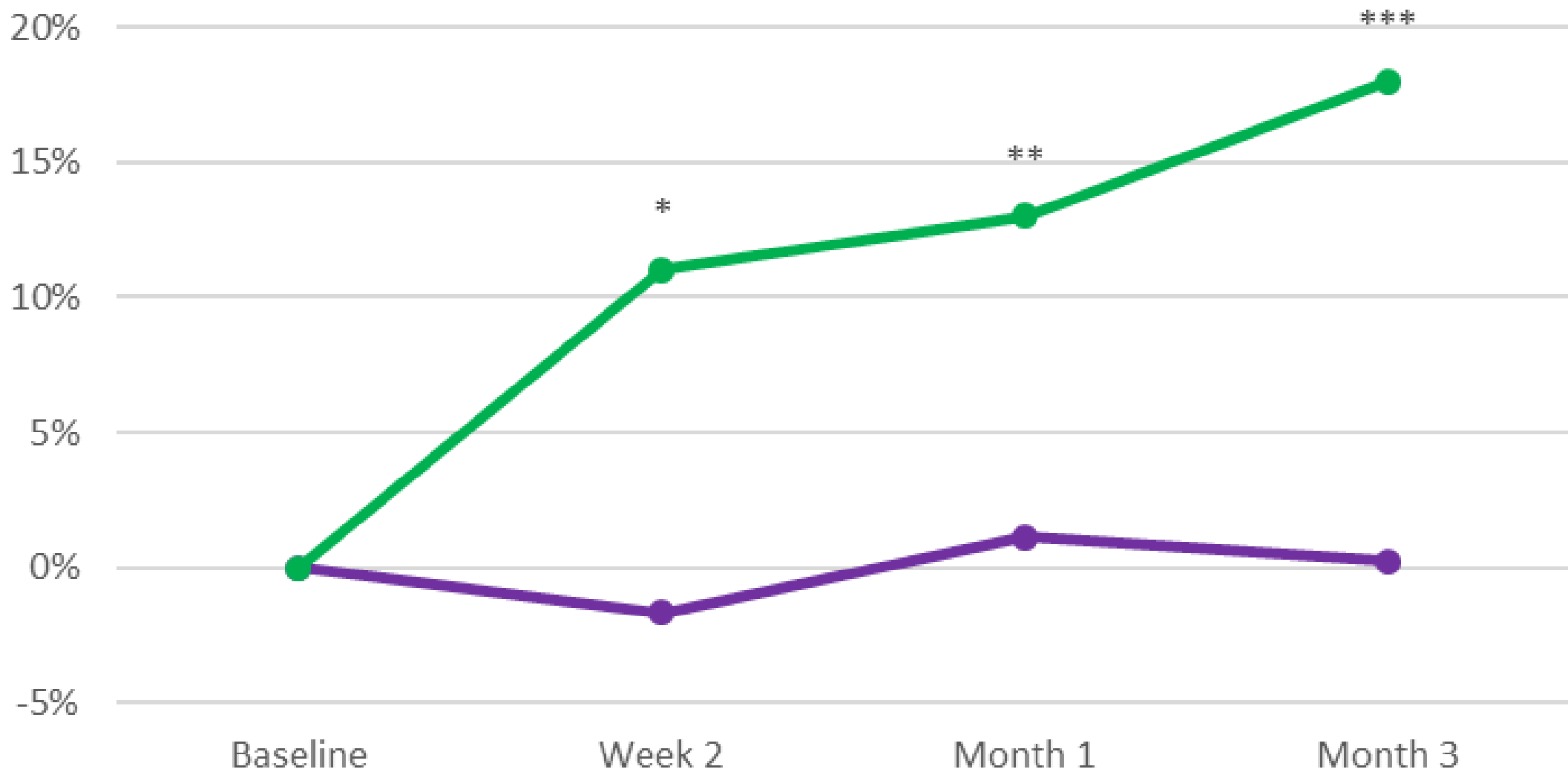
MBI Emotional Exhaustion (EE) % Change - Composite



* $p < 0.001$ ** $p < 0.004$

—●— LAU —●— TM

WEMWBS % Change (Composite)



* $p < .00005$

** $p < .00004$

*** $p < .0001$

—●— LAU —●— TM

Summary and Discussion

- “Healing the Healers” clinical trial to assess the potential benefit of TM on HCP burnout and stress in the height of the Covid Pandemic.
- Enrollment started June 2020 and trial completion June 2021
- Virtually all measures in the TM group showed dramatic and significant improvement as early as two weeks with consistent continued improvement over time including multiple highly statistically significant endpoints.
 - Most dramatic was anxiety and insomnia changes but, well-being showed a consistent highly significant improvement over time.
- The LAU group did not show significant change.
- Additional trials underway at Duke Healthcare, Harvard Brigham Hospital, University of Michigan and others