



## Original Investigation | Medical Education

# Online Well-Being Group Coaching Program for Women Physician Trainees A Randomized Clinical Trial

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## Abstract

**IMPORTANCE** Physician burnout disproportionately affects women physicians and begins in training. Professional coaching may improve well-being, but generalizable evidence is lacking.

**OBJECTIVE** To assess the generalizability of a coaching program (Better Together Physician Coaching) in a national sample of women physician trainees.

**DESIGN, SETTING, AND PARTICIPANTS** A randomized clinical trial involving trainees in 26 graduate medical education institutions in 19 states was conducted between September 1, 2022, and December 31, 2022. Eligible participants included physician trainees at included sites who self-identified as a woman (ie, self-reported their gender identity as woman, including those who reported woman if multiple genders were reported).

**INTERVENTION** A 4-month, web-based, group coaching program.

**MAIN OUTCOMES AND MEASURES** The primary outcomes were change in burnout (measured using subscales for emotional exhaustion, depersonalization, and personal achievement from the Maslach Burnout Inventory). Secondary outcomes included changes in impostor syndrome, moral injury, self-compassion, and flourishing, which were assessed using standardized measures. A linear mixed model analysis was performed on an intent-to-treat basis. A sensitivity analysis was performed to account for the missing outcomes.

**RESULTS** Among the 1017 women trainees in the study (mean [SD] age, 30.8 [4.0] years; 540 White participants [53.1%]; 186 surgical trainees [18.6%]), 502 were randomized to the intervention group and 515 were randomized to the control group. Emotional exhaustion decreased by an estimated mean (SE) −3.81 (0.73) points in the intervention group compared with a mean (SE) increase of 0.32 (0.57) points in the control group (absolute difference [SE], −4.13 [0.92] points; 95% CI, −5.94 to −2.32 points;  $P < .001$ ). Depersonalization decreased by a mean (SE) of −1.66 (0.42) points in the intervention group compared with a mean (SE) increase of 0.20 (0.32) points in the control group (absolute difference [SE], −1.87 [0.53] points; 95% CI, −2.91 to −0.82 points;  $P < .001$ ). Impostor syndrome decreased by a mean (SE) of −1.43 (0.14) points in the intervention group compared with −0.15 (0.11) points in the control group (absolute difference [SE], −1.28 (0.18) points; 95% CI −1.63 to −0.93 points;  $P < .001$ ). Moral injury decreased by a mean (SE) of −5.60 (0.92) points in the intervention group compared with −0.92 (0.71) points in the control group (absolute difference [SE], −4.68 [1.16] points; 95% CI, −6.95 to −2.41 points;  $P < .001$ ). Self-compassion increased by a mean (SE) of 5.27 (0.47) points in the intervention group and by 1.36 (0.36) points in the control group (absolute difference [SE], 3.91 [0.60] points; 95% CI, 2.73 to 5.08 points;  $P < .001$ ). Flourishing improved by a mean (SE) of 0.48 (0.09) points in the intervention group vs 0.09 (0.07) points in the

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## Key Points

**Question** Can a 4-month, online, group coaching program reduce burnout, moral injury, and impostor syndrome and increase self-compassion and flourishing among a sample of women physician trainees across multiple sites?

**Findings** In this randomized clinical trial of 1017 women trainee physicians, participants randomly assigned to a 4-month group-coaching program had a statistically significant reduction in all scales of burnout, moral injury, and impostor syndrome, as well as improved self-compassion and flourishing, compared with the control group.

**Meaning** These findings suggest that an online, multimodal, group coaching program is an effective intervention to decrease distress and improve well-being for women physician trainees.

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Abstract (continued)

control group (absolute difference [SE], 0.38 [0.11] points; 95% CI, 0.17 to 0.60 points;  $P < .001$ ). The sensitivity analysis found similar findings.

**CONCLUSIONS AND RELEVANCE** The findings of this randomized clinical trial suggest that web-based professional group-coaching can improve outcomes of well-being and mitigate symptoms of burnout for women physician trainees.

**TRIAL REGISTRATION** ClinicalTrials.gov Identifier: [NCT05222685](https://clinicaltrials.gov/ct2/show/study/NCT05222685)

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## Introduction

Physician burnout is highly prevalent in the US; is disproportionately experienced by physician trainees and women; and is associated with substance abuse, job turnover, higher rates of medical errors, and patient mortality.<sup>1-5</sup> In 2022, the US Surgeon General declared physician burnout a crisis deserving of a multipronged approach to bring about “bold, fundamental change,”<sup>6</sup> yet little is known about scalable, effective interventions to mitigate burnout risk.<sup>1,7-9</sup>

Professional coaching is a promising intervention to reduce burnout.<sup>10-13</sup> The 2022 Surgeon General's Advisory emphasized building a culture of well-being in training institutions and included coaching as a recommended tool.<sup>6,14</sup> Coaching, unlike therapy, does not diagnose or treat, and instead uses inquiry and metacognition (ie, thinking about one's thinking) to guide self-progress.<sup>15,16</sup> Evidence supporting physician coaching is growing, but predominantly describes individual coaching led by nonphysician or noncertified faculty coaches in small studies.<sup>11,12,17-20</sup> Literature on outcomes of coaching for physician trainees is sparse, limited to small samples and single specialties, and primarily includes programs of short duration.<sup>10,11,17,21,22</sup>

An online group coaching program, Better Together Physician Coaching (BT), was piloted in response to high physician trainee burnout.<sup>10,13</sup> Because women trainees are disproportionately affected by burnout,<sup>3-5</sup> BT was initially evaluated among women resident physicians at the University of Colorado in a pilot, single site, randomized clinical trial (RCT), which indicated that online group coaching improved burnout.<sup>10</sup> Building on previous work, the objective of this multisite RCT was to evaluate the generalizability of the 4-month online group coaching program to reduce distress and improve well-being in a national sample of women physician trainees.

## Methods

### Trial Oversight

This RCT follows the Consolidated Standards of Reporting Trials (CONSORT) reporting guideline<sup>23</sup> and was approved by the University of Colorado institutional review board (see the Trial Protocol in [Supplement 1](#)). The study was conducted from September 1, 2022, to December 31, 2022, at 26 graduate medical education (GME) institutions across 19 states (eTable 1 in [Supplement 2](#)). Sites of different geographic locations, sizes, and focuses (ie, community vs academic) were recruited and included academic, county, Veterans Health Administration, and community-based hospitals and clinics. Recruitment emails were initially sent to institutional leadership, and video conference calls were held to confirm partnership in this study. Participant enrollment was voluntary, and all participants provided written informed consent. Data were collected and managed with The University of Colorado Research Electronic Data Capture (REDCap). Participating sites were not involved in research and could not access identifiable data.