

Introduction: Burnout among surgical residents ranges from emotional exhaustion to severe mood disturbance. Burnout is seen as early as intern year and has profound effect on work performance and interpersonal relationships. Mitigation of burnout requires both individual and institutional interventions. Cognitive Behavioral Therapy (CBT) is an individual-level intervention used in treating patients with depression and anxiety. In this study, we have examined the novel application of CBT as a skill-based therapeutic intervention to increase mental wellness and fortitude. We hypothesized that interns who participated in CBT would have lower burnout, stress, anxiety, and depression and higher flourishing ratios than those that did not.

Methods: 25 surgical interns were randomly assigned to three sequential CBT sessions either early, during the first semester of internship, or late, during the second semester of internship. All study participants completed a baseline survey and attended at least one CBT session. The baseline scores for burnout, anxiety, depression, and stress were obtained using The Maslach Burnout Inventory (MBI), GAD-7, PHQ-9, and Perceived stress scale (PSS), respectively. Emotions were assessed using PANAS scale (POS-positive; NEG-negative). Flourishing positivity index, a ratio between positive and negative emotions, was used to evaluate participants feelings and functioning in the areas of life that matter to them (ratio > 2.9 flourishing; 1-2.9 languishing; <1 perishing).

Independent variables were compared by the Fisher Exact Test, Wilcoxon Rank-Sum Test, and t-test. Statistical significance was set at $p < 0.05$.

Results: Ethnic minorities were significantly more likely to present with high stress ($PSS > 17$) than their white non-Latinx counterparts upon baseline ($p = 0.03$). The late group showed a significant downward trend in MBI score ($p = 0.03$). PANAS-POS trended downward for early group ($p = 0.03$). Both groups showed significant reduction in their PHQ-9 score over time: mean difference -3.51 ($p = 0.03$) for early group and -3.36 ($p = 0.01$) for late group. GAD score did not significantly decrease in either group. Flourishing ratio did not significantly change in either group, with most residents remaining in the languishing category.

Conclusion: In this study, short course CBT was associated with changes in wellness surveys. Further studies may focus on the operationalization of therapy in this unique cohort.