

Introduction

Background

- Endoscopy can be associated with stress, burnout, self-criticism, interpersonal conflicts, and productivity pressure^{1,2}
- Mindfulness based interventions have been shown to decrease stress and improve executive function among surgical residents³

Aim

- To evaluate if a mindfulness-based intervention is feasible and effective in reducing stress during endoscopic training among gastroenterology fellows

Methods

- Enrolled GI Fellows (N=7) in a single-arm prospective pilot study of a mindfulness-based intervention at a tertiary academic center in Spring 2022
- Induction period: Weeks 0-8. Two 1-hour Mindfulness Based Intervention workshops (guided meditation, visualization)
- Assessment period: Weeks 8-12
- Baseline (week 0) and post-intervention surveys (week 12) measured feasibility, stress, and mindful endoscopic practice of participants
- Weekly validated State-Trait Anxiety Inventory (STAI-6) surveys were obtained (weeks 0-12)

Results

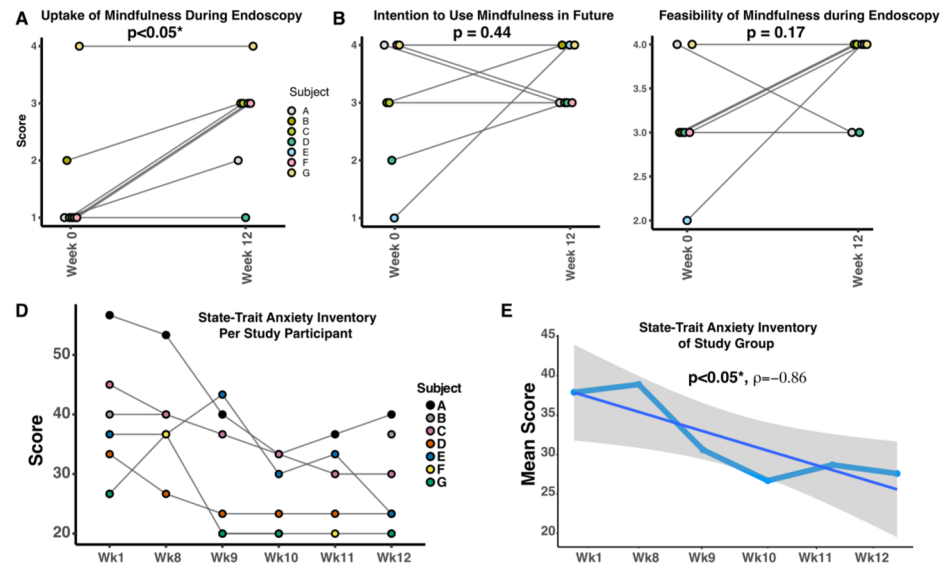


Figure A – C: Self reported use of (A) Mindfulness practice during endoscopy, (B) Likelihood of future use of mindfulness during endoscopy, (C) Perceived feasibility of mindfulness during endoscopy, measured by a four-point Likert Scale, pre and post mindfulness-based intervention
Figure D: State- Trait Anxiety Inventory (STAI-6) scores by participant over the 12-week period
Figure E: Mean STAI-6 scores across all GI fellows over the 12-week period, with Pearson's Correlation reported

Conclusion

Results

- Participants significantly increased mindful endoscopic practice
- Use of mindfulness practice during endoscopy: Mean [SD] difference +1.14 [0.18], $p < 0.05$
- Participants significantly reduced procedural anxiety by >25% over the course of the assessment period
- State-Trait Assessment Inventory (-27.2% reduction in STAI-6 scores, $p < 0.05$, $\rho = -0.86$)

Limitations

- Small study group size
- Lack of randomization of intervention

Discussion:

- Mindfulness- based interventions can reduce stress and improve endoscopic training in fellowship programs
- Mindfulness- based interventions can feasibly be incorporated into endoscopic curriculum
- A larger, multi-center trial that utilizes rigorous mindfulness- based interventions may show even larger effects

References

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