MINDFULNESS AND STRESS MITIGATION TECHNIQUES OF US ARMY SPECIAL OPERATION SURGEONS

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INTRODUCTION

- 69% burnout in general surgery residents.[1]
- Mindfulness-based interventions (MBIs) benefit burnout, stress, and performance.
- Uptake in training remains low.[2-4]
- Special Operations (SO) surgeons perform exceptionally well in high-stress environments that require resilience and adaptability.[5]

OBJECTIVES

To identify if stress mastery techniques used by US Special Operations (SO) surgeons map to skills provided by MBIs.

METHODS

#20 Active duty Special Operation Surgeons in the United States

ONLINE SURVEY

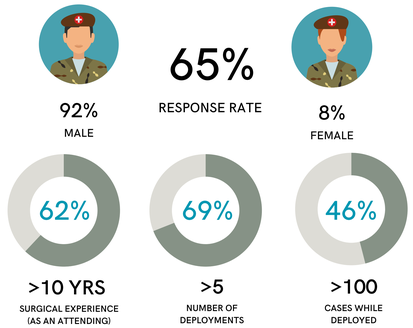
- DEMOGRAPHICS: Surgical experience, no. of deployments and cases, exposure to mindfulness
- 2-ITEM BURNOUT SCREEN: Experience and ways to mitigate it
- OPEN-ENDED QUESTIONS: Mindfulness experience and perceptions
- ANALYSIS: Descriptive statistics, t-test

SEMI-STRUCTURED INTERVIEWS

- TO EXPLORE:
  - Key stress management techniques
  - Leadership and teamwork skills
  - Opinions on benefit of MFT in surgery residency
- ANALYSIS: Inductive and deductive thematic analysis

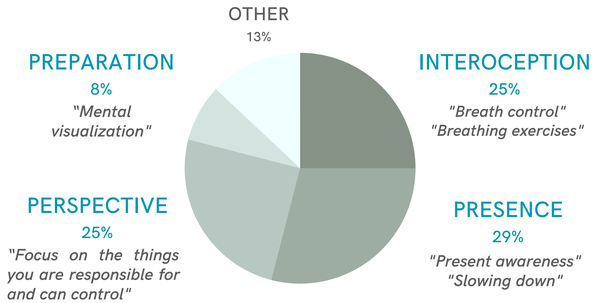
RESULTS

SURVEY RESPONSES (N=13)



MAPPING MINDFULNESS-BASED SKILLS/CONCEPTS

FROM SURVEY RESPONSES



MAPPING MINDFULNESS-BASED SKILLS/CONCEPTS

FROM SEMI-STRUCTURED INTERVIEWS (N=3)

INTEROCEPTION

"Recognize your stress, recognize your heart rate is up, separate yourself, focus on the problem."

PERSPECTIVE

"You level out and realize I'm not the one bleeding, I need to make some decisions here and be under control."

PREPARATION

"What JMU does really well is practice. [sic] We practice dealing with real audible bleeding in a helicopter in the dark."

COMMUNITY

"I just learned little ways of how I deal with fatigue, or the loss of a patient, or a devastating outcome – I rely very much on my family that's my big one."

EMOTIONAL REGULATION

"I can vomit after this case. [sic] It's okay to feel completely overwhelmed, but you need to work through that."

FINDINGS

- Surgeons with less combat experience frequently reported more burnout and greater perceived benefit to MBIs.
- Mindfulness skills are unrecognized but routinely used and identified as critical for success.
- Novel use of *proactive* and *team-based* mindfulness strategies.

CONCLUSION

Our findings reveal that critical stress management skills used by SOSs map to skills trained by MBIs. These skills were advocated to be essential for success and were shared with teams in novel ways as a key part of team preparedness and performance.

REFERENCES

1. Elmore LC, Jeffe DB, Jin L, Awad MM, Turnbull IR. National Survey of Burnout among US General Surgery Residents. J Am Coll Surg. 2016;223(3):440-451. doi:10.1016/j.jamcollsurg.2016.05.014
2. Cocks M, Moulton CA, Luu S, Cil T. What surgeons can learn from athletes: mental practice in sports and surgery. J Surg Educ. 2014;71(2):262-269. doi:10.1016/j.jsurg.2013.07.002
3. Barkander A. [What surgeons can learn from athletes and fighter pilots - mental training in surgery]. Lakartidningen. 2021;118:21175.
4. Deshauer S, McQueen S, Hammond Mobilio M, Mutabdzic D, Moulton CAE. Mental Skills in Surgery: Lessons Learned From Virtuosos, Olympians, and Navy Seals. Ann Surg. 2021;274(1):195-198.
5. Hoencamp R, Idenburg F, Vermetten E, Leenen L, Hamming J. Lessons learned from Dutch deployed surgeons and anesthesiologists to Afghanistan: 2006-2010. Mil Med. 2014;179(7):711-716.