

Stress level, wellness approaches, and optimized wellness curriculum in Emory Anesthesiology trainees: a cross-sectional survey study

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BACKGROUND & PURPOSE

Anesthesiology residents and fellows, whether in the operating room, intensive care units, or pain clinic, are exposed to a multitude of challenging and stressful situations. These trainees are expected to assimilate a vast amount of knowledge and technical skills, integrate into fluctuating teams, and navigate dynamic clinical situations under time constraints to maintain efficiency. When suboptimally managed, these pressures can result in adverse effects on emotional and physical well-being, professionalism, productivity, and patient care (1,2,5). The prevalence of burnout (including emotional exhaustion, depersonalization, and a sense of reduced personal accomplishment) in a large national cross-sectional survey of Anesthesiology residents and first-year graduates from 2013-2016 was 51%; 32% were in distress as measured by the Physician Wellbeing Index; and 12% screened positive for depression (1). Multiple factors were shown to affect burnout and wellbeing including age, year of training, family and social support, work hours and call burden, perceived ability to maintain work-life balance, as well as acceptability and accessibility of institutional resources (1). Burnout and wellbeing has been studied at Emory University School of Medicine utilizing the Maslach Burnout Index (MBI) anonymously completed by 33% of residents and fellows in 2017 with a resultant burnout rate of 70%; the MBI was readministered across Emory trainees in 2019 with a completion rate of 40% and increased burnout incidence of 75% (unpublished correspondence). Interventions to reduce burnout and improve wellness can take the form of individualized approaches or organizational strategies, and both have proven effective in randomized trials (5). Determining which interventions are most effective for particular physician groups remains unclear (5). The first comprehensive, formalized didactic wellness curriculum in Canada—the Anesthesiology Resident Wellness Program—was described in 2017, though remains untested in efficacy (5). Similar unique departmental approaches have been published in the U.S. It is currently unclear what tools Emory Anesthesiology residents and fellows are utilizing to improve their wellbeing and stress tolerance, and what components they would like included in a department wellness curriculum. We aim to conduct a survey of this group of trainees to answer these questions and optimize wellbeing.

METHODS

OVERALL GOAL:

Conduct a web based survey of Emory Anesthesiology residents and fellows to measure their perceived stress, current utilization of wellbeing techniques, and desired elements of a wellness curriculum.

SPECIFIC AIMS:

- Collect demographics of Emory Anesthesiology residents and fellows which may influence perceived stress
- Assess the trainee's current perceived stress level on 10 question Perceived Stress Scale (PSS-10)
- Determine the current tools utilized by the trainee to manage life stress
- Determine components the trainee like to be included in a department wellness curriculum.

POPULATION:

Emory Anesthesiology interns (PGY1), residents (CA1-3), fellows (including Critical care, Adult cardiothoracic, Anesthesia administration, Liver transplant, Obstetric, Pain Medicine, Pediatric, Regional anesthesia)

FIELD METHODS:

Trainees will be emailed a message from study coordinator Kathy Egan with an introduction to the study survey and a SurveyMonkey link to be opened at their convenience over a 2-week time frame. The email will describe the goals, risks, and benefits of the survey. Clicking on the link will take interested participants to a consent script embedded within SurveyMonkey.

References

1. Sun H et al. Repeated cross-sectional surveys of burnout, distress, and depression among anesthesiology residents and first-year graduates. *Anesthesiology* 2019; epub prior to print.
2. Del Carmen MG et al. Trends and factors associated with physician burnout at a multispecialty academic faculty practice organization. *JAMA Network Open* 2019; 2(3):e190554.
3. Chakravarti A et al. Anesthesiology resident wellness program at the University of Saskatchewan: curriculum content and delivery. *Can J Anesth* 2017; 64:199-210.
4. Aggarwal R et al. Resident wellness: an intervention to decrease burnout and increase resiliency and happiness. *MedEdPORTAL* 2017;13:10651.
5. West CP et al. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet* 2016; 388:2272-81.

SURVEY

1. Gender:

Female, Male, Nonbinary, Prefer not to answer

2. Age:

25-29, 30-34, 35-39, 40+

3. Current level of training:

Intern, CA1, CA2, CA3, Fellow

4. Relationship status:

Single not in a committed relationship, Single in a committed relationship, Married, Divorced not in a committed relationship, Divorced in a committed relationship

5. Number of children:

0, 1, 2, 3, 4+

6. Number of hours worked in last week:

< 40, 41-50, 51-60, 61-70, 70+

7. Number of night calls this month (both in-house and home call):

0, 1, 2, 3, 4, 5+

8. Do you feel that your current graduate medical residency or fellowship program provides adequate resources to address wellness?

Yes, No

9. Please rate from 0 - 4 how comfortable you feel using the wellness resources offered by your current Emory program (0 = not comfortable at all, 4 = very comfortable).

10. To what extent do you agree with the following statement: I am able to maintain work-life balance: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

11. To what extent do you agree with the following statement: I have a strong social support system: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

12. For the following questions, please indicate how often you felt or thought a certain way: 0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

- In the last month, how often have you been upset because of something that happened unexpectedly?
- In the last month, how often have you felt that you were unable to control the important things in your life?

- In the last month, how often have you felt nervous and "stressed"?
- In the last month, how often have you felt confident about your ability to handle your personal problems?
- In the last month, how often have you felt that things were going your way?
- In the last month, how often have you found that you could not cope with all the things that you had to do?
- In the last month, how often have you been able to control irritations in your life?
- In the last month, how often have you felt that you were on top of things?
- In the last month, how often have you been angered because of things that were outside of your control?
- In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

13. What tools are you currently utilizing to help manage life stress? (select all that apply)

Physical exercise, Deep breathing, Mindfulness / meditation, Stretching / Yoga, Gratitude practice, Reflective writing, Formal therapy with psychological professional, Cognitive behavioral therapy approaches, Social connections, Hobbies / Interests, Rest / sleep, Time management techniques, Volunteering, Other (please describe)

14. What topics or tools would you like to learn about or practice in a department wellness curriculum? (select all that apply)

Science of wellness and burnout; Stress, fatigue, and time management; Nutrition and exercise; Navigating personal and professional relationships; Physician resilience and how to deal with negative outcome; Creating dedicated weekly time in the workplace for wellness activity; Physical exercise; Deep breathing; Mindfulness / meditation; Stretching / Yoga; Gratitude practice; Reflective writing; Formal therapy with psychological professional; Cognitive behavioral therapy approaches; Social connections; Hobbies / Interests; Volunteering in a group setting; Physical fitness social challenges (eg. Fitbit step or flight challenge); Reframing exercise to reconsider negative thoughts; Wellness mentoring; Other (please describe)