

Factors Affecting Research Productivity of Burn Surgeons: Results from a Survey of American Burn Association Members

Adel Eikbuli, MD, MPH, Raed Narvel, Sarah Zajd, Shaikh Hai, MD, FACS, Mark McKenney, MD, MBA, FACS, Dessy Boneva, MD, FACS

BACKGROUND

- Participation in research is paramount to a career in academic surgery.
- Research has importance for academic and nonacademic surgeons in leading to discoveries and best practices that affect the health of our patients.
- Previous studies have examined factors that impact research productivity for surgeons in general.
- A recent study that examined research productivity across plastic surgery subspecialties reported that burn specialists had less research productivity than their plastic surgery colleagues.
- The following factors were anticipated to have a positive impact on research productivity: mentorship, advanced degree, and membership in academic societies.

OBJECTIVES

This study aimed to identify factors that promote and impede research participation and productivity of burn surgeons, and help determine what changes can be made by surgical departments to improve the research productivity of burn/plastic surgeons.

METHODS

- A 44-question anonymous research survey tool was administered to burn/plastic surgeons that are members of the American Burn Association.
- The questions analyzed demographics, career accomplishments, current institution, educational background, and research background. Questions related to barriers to research including institutional support, funding, and regulation were asked.
- Surgeons were surveyed about perceptions of quality of current research as well as self-reported definitions of research productivity, and were asked about objective measures of research output including number of publications, grants, presentations, and conferences attended.
- Respondents were given the option to choose multiple answers on most questions and could also submit free-hand response answers.

RESULTS

- When asked about research, 85.9% of surgeons reported publishing prior to or during residency with 14.1% reported having no publications prior to completion of residency.
- Most reported that their current institution provides research resources (84.5%) while 15.5% said their institution did not provided resources.
- Most surgeons reported having no protected research time (71.4%) while 22.6% stated they have protected research time.
- In those with protected time, most reported their contract did not specify a percentage of time that should be spent on research (33.3%), 25.6% said their contract specified about 25% of their time for research, and all other categories having less than 5%.
- %. In these surgeons, only 61.7% believed their specified time was upheld while 38.2% believed their amount of time was not upheld.
- Surgeons reported that they did not receive incentives/financial support for doing research from their institution in 70% of cases, while 26.3% received some kind of support.
- Publishing research prior to completion of residency was associated a greater likelihood of having 1-2 publications in the past year.
- Having a mentor was also associated with a greater likelihood of having 1-2 publications in the past year as was provision of research resources from an individual's institution.

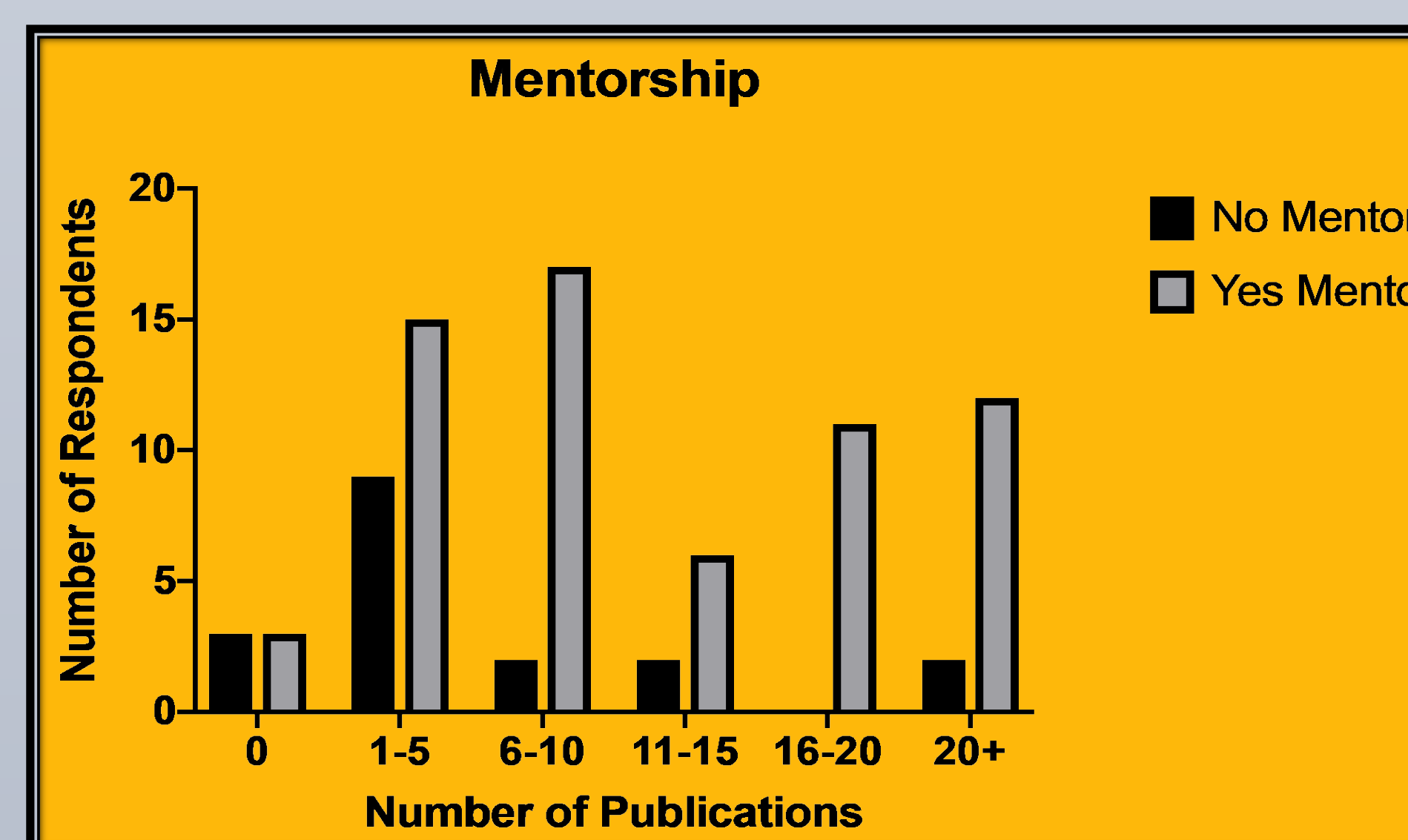
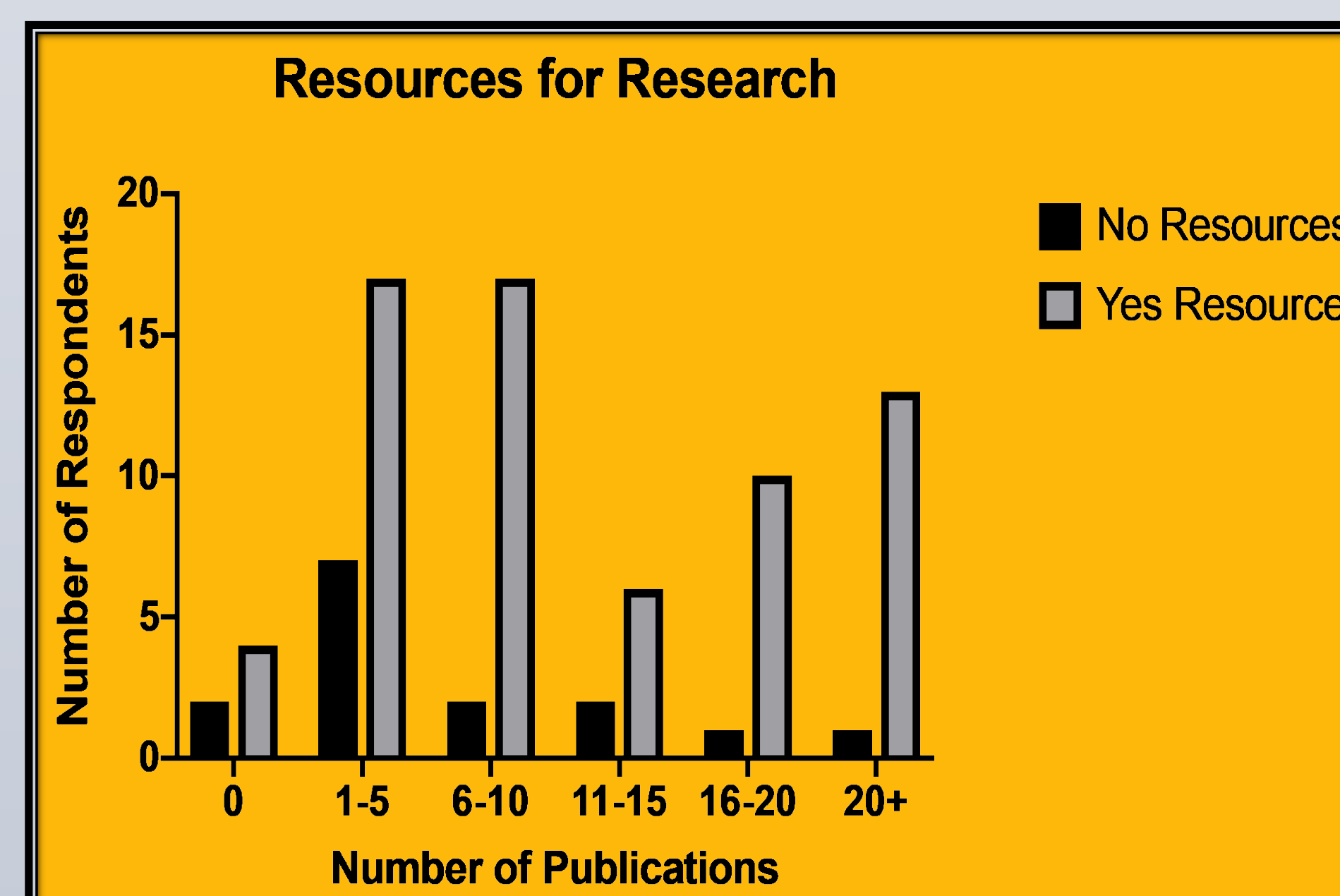


Figure 1 & 2: Factors associated with number of research publications

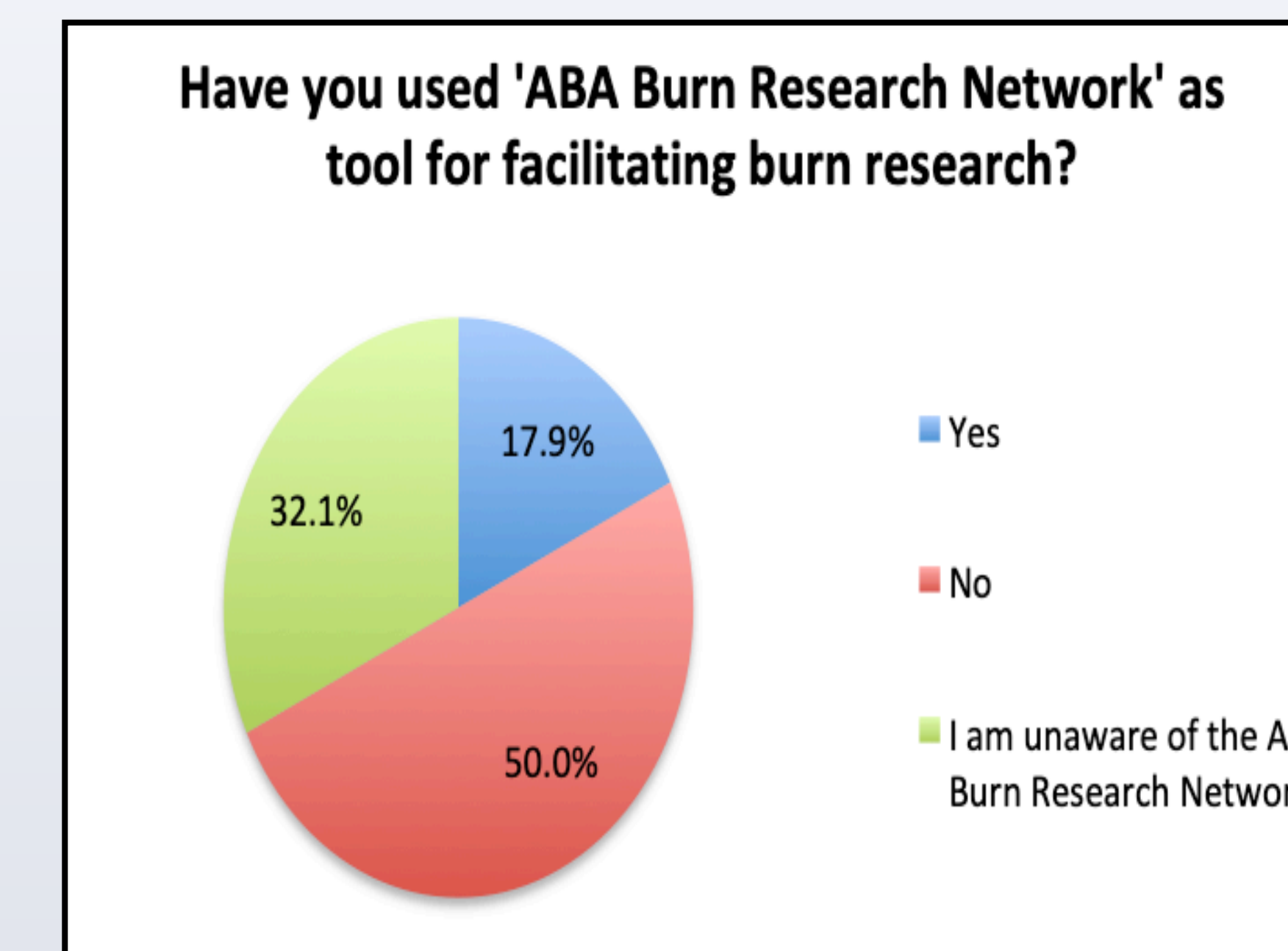


Figure 3: Use of ABA Burn Research Network as a tool for Facilitating Burn Research

LIMITATIONS

- While we looked at several markers for research productivity including number of publications over the past 5 years, number of grants accepted, meetings attended, and presentations given, none of these by themselves give a holistic measure of research productivity.
- This study may also may have been subject to reporting bias, like other self-reporting studies, as respondents may not have wanted to reveal if they had relatively low publication rates.
- Participants that were uninterested in research may have elected out of responding to the survey.

FUTURE RECOMMENDATIONS

- Individually, burn surgeons must take better advantage of the resources available to them through organizations such as the American Burn Association and seek mentorship where available
- Surgical departments should aim to increase research resources for burn surgeons, honor protected research time, and strive to create a culture of research activity if research productivity is the goal.

CONCLUSION

Burn surgeons are more likely to publish research and to receive grants when they have mentors, a history of research prior to completion of residency, and research resources from their institution. Barriers to research productivity include lack of institutional support, lack of protected research time, and increased regulatory policy.