Impact of Research Experiences on Medical Student Success: Perceived and Actual Outcomes

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Introduction

It is generally accepted that osteopathic medical students (OMS) should be given the opportunity to gain research experience to develop skills that can positively impact patient care. Kansas City University of Medicine and Biosciences (KCU) provides such experiences in the form of fellowship opportunities in clinical anatomy, osteopathic manipulative medicine, and basic science research.

Objectives & Outcomes

Objectives

1. Understand and describe the effect of research fellowships in medical school on perceived medical student success.
2. Gain insight on the impact of medical school research fellowships on residency matching outcomes.

Outcomes

1. Describe the perceived outcomes of year-long, summer research fellowships at KCU.
2. Compare the types of residency matches that occur between OMM, anatomy, and basic science research fellowships.

Methods

Phase 1: 153 email surveys were sent using the Wufio platform to participants in the clinical anatomy (ANAT, n=23, 2005-present), osteopathic manipulative medicine (OMM, n=22, 2009-present), and Summer Student Research (SSRF, n=108, 2002-present) fellowships at KCU. The survey results presented include 10 questions designed to understand (1) OMS rationale for choosing to participate in a research opportunity and (2) OMS perceptions of their experience and reported outcomes.

Phase 2: Fellowship participants and the residency program type that they matched to were then examined for potential links between the type of fellowship that they participated in and the field or specialty that they matched to.

Literature Cited

1. Frishman WH. Student research projects and theses: Should they be a requirement for medical school graduation? Heart Disease 2001; 3:140-144.

Results

Of survey respondents (n=30), 11/30 chose to participate in a research fellowship to become a more competitive candidate for residency. 6/30 participated because they enjoyed research themselves and/or working with a particular mentor. 90% of fellowship research resulted in a formal presentation, 40% in a peer reviewed publication. 6/30 were definitely satisfied with their research experience upon completing their fellowships. 11/30 felt that the research experience they gained from the fellowship has helped them as a clinician. Interestingly, there were mixed results regarding whether participants felt they gained research skills that have helped them in clinical practice or that completing a research fellowship helped them gain entry into their preferred residency. Around three quarters of participants planned to continue research in the future while all recommend other students to participate in a research program in their medical school.

Conclusion

Research experience as an undergraduate OMS may increase the likelihood of matching into residencies where DO’s are underrepresented (ophthalmology) and is valued highly by OMS in assisting clinical acumen through evidence-based practice.

Future Directions

• Do certain residency programs or specialties require that applicants have research experience?
• Do residency programs look for particular types of research experience in applicants?
• Compare actual research projects completed by OMS to the residencies they end up in.
• Craft more detailed surveys that would allow for better assessment of the links between research experience type and desired versus actual outcomes for OMS.
• Survey a broader population of OMS from various schools for more data.

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