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Research

Evaluation of a Dermatology Mentoring Program for Medical Students

Marie Vu¹, BSA, Ryan Wealthier¹, BS, Robert Gilson¹, MD

1. UT Health San Antonio, Long School of Medicine

Abstract

Introduction: In dermatology, there is scant research exploring the mentorship of medical students. Mentorship can play a critical role in facilitating student development, especially when applying to a competitive specialty such as dermatology. Our study evaluates the effectiveness of a mentoring program that paired medical students with current dermatology program residents, alumni, and faculty.

Methods: Medical student mentees were paired with dermatology residents, attendings, and alumni mentors. Pre- and post-surveys were administered to 13 participants. Responses were collected using a digital-based visual analog scale rating from 1 to 10, with 1 being strongly disagree and 10 being strongly agree. Seven students completed both surveys and a Wilcoxon signed-rank test was used for analysis.

Results: There was not a statistically significant difference in students reporting whether they knew what was expected of them as a medical student interested in dermatology ($P=0.062$). However, there was a statistically significant increase in students reporting access to research in dermatology ($P=0.016$). There was also a statistically significant increase in students reporting connections to dermatologists after the program ($P=0.047$). 100% of participants indicated they had a good experience with the program and wished to continue the program with their mentor in the following year.

Conclusion: Although our sample size was small and represents a single-center study, the positive results and reviews from participants suggest that this program would be a good addition to any medical school with access to dermatologists.

Article

Mentoring is important in the development of physicians.¹ Within dermatology, there is an expanding body of research exploring mentorship of physicians. Such studies demonstrate that mentorship is an important resource for professional development, leading to interpersonal relationships which extend beyond the academic environment.^{2,3} However, there is a dearth of

research exploring mentorship of medical students. As dermatology is one of the most competitive specialties to match into, mentorship plays a crucial role in facilitating student development for residency applications.⁴ Recognizing this importance, our dermatology interest group partnered with our dermatology department to create a mentorship program for medical students. The goals of the program were to give students more exposure to the field of dermatology, provide them with dermatology research, and form connections with dermatologists.

Interested medical student mentees were paired with dermatology residents, attendings, and alumni mentors. All current dermatology residents at our participating institution were asked to participate as part of their resident curriculum. Additionally, current program staff faculty were also invited to participate. Mentors and mentees completed an application which provided information on their specific interests in dermatology as well as interests outside of medicine. Mentor and mentee pairings were formulated based off similar interests. For example, those who shared an interest in pediatric dermatology were paired. All students who completed an application were formally paired with a mentor. Mentors were instructed to serve as a point of contact for students to meet on an as needed basis, offer shadowing opportunities, and collaborate with students on scholarly works. Specifically, mentors were instructed to complete a case report presentation with their respective mentee to submit to the 2021 Spring Texas Dermatological Society meeting. Additional collaboration on scholarly works were at the mentor's and mentee's discretion. The program formally ran from September 2020 to May 2021, although informally the pairings could last longer. 13 students participated in the program, including two second year medical students, nine third year medical students, and two fourth year medical students. A three-item survey was administered to participants before and after the year-long program. The survey assessed if participants knew expectations for themselves as students interested in dermatology, if participants had accessibility to dermatology research, and if participants had connections to dermatologists. Narrative feedback of the program was also included in the survey. Responses were collected utilizing a digital-based visual analog scale which ranged from 1 to 10, with 1 indicating strongly disagree and 10 indicating strongly agree. A Wilcoxon signed-rank test was used for analysis with an $\alpha = 0.05$.

Of 13 eligible students who participated in the mentorship program, 10 students attempted the initial survey whereas seven completed both (response rate 77%, completion rate 70%). Participants indicated a similar level of agreement to the first statement "I know what's expected of me as a medical student interested in dermatology." on the pre- and post-surveys ($P=0.062$); however, in the post-program survey, all students responded with a confidence rating of 7 or higher to the survey question whereas the pre-survey response had a confidence rating from 4 or higher. (Figure 1). Students reported increased agreement to the second statement "I have access to research in dermatology." ($P=0.016$) (Figure 1). There was also increased agreement to the third statement "I have connections to dermatologists." ($P=0.047$) (Figure 1). In the narrative feedback portion of the survey, 100% of respondents indicated a positive experience with the program and wished to continue the program with their current mentor for the following year.

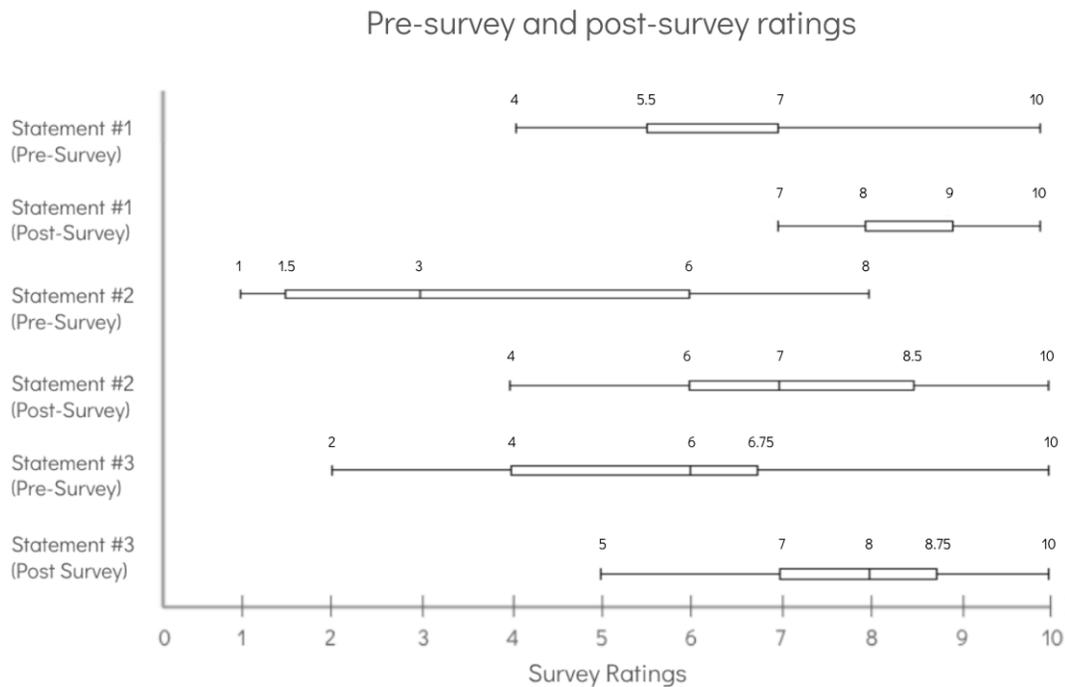


Figure 1. Pre-survey and post-survey results

Mentors provide invaluable support and advice, as well as research opportunities and strong letters of recommendation. Beyond the benefit of residency applications, mentorship helps to facilitate personal and professional development for students.⁴ The results provide evidence that a majority of the program's goals were met. Participants indicated that they had significantly increased access to research and connections to dermatology due to the mentorship program (Figure 1). In addition, having dermatology residents participate in the program promoted the development of their own long-term mentoring skills. Pairing current successful dermatology residents to assist students interested in dermatology presented an opportunity to have a one-on-one mentor advise students on best practices, especially for those in their upcoming application cycle. Mentors also provided mentees with shadowing opportunities and connections to other dermatology professionals. Due to the largely positive feedback from both mentees and mentors, the mentorship program was implemented again for the 2021-2022 year, with many mentees continuing their formal mentorship pairing with the same mentor. Although the study includes a small sample size and represents a single-center study, the statistically significant results, as well as positive written feedback, indicate that implementation of a mentorship program would be a beneficial addition to any medical school with access to dermatology professionals. Future evaluations of this program will collect how many instances the mentor and mentees met as well as which activities they participated in together.

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