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Quick to connect: a comparison of virtual and in-person speed mentoring for emergency medicine medical students, residents by faculty at a national conference

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Abstract

Background Mentorship is vital to foster personal and professional growth. Speed mentoring is a newer model of mentorship that introduces trainees to several potential mentors. The Society for Academic Emergency Medicine (SAEM) hosts a speed mentoring event at its annual meeting. During the COVID-19 pandemic, the annual meeting transitioned to a virtual format. This study compares participants' attitudes towards in-person and virtual speed mentoring.

Methods Medical students, residents, and faculty mentors completed a biographical sheet to inform pairings and to facilitate discussion. The same anonymous event evaluation was administered to the participants during both the in-person (SAEM19) and virtual speed mentoring event (SAEM21). We assessed whether there were significant differences in viewpoints of participants of the two formats using Fischer's Exact Test for each question by role and performed a thematic analysis on the free-text question.

Results The response rates for mentors and mentees were 89.6% (43/48) and 77.1% (37/48) for SAEM19, and 76.9% (10/13) and 84.6% (11/13) for SAEM21, respectively. Participants responded similarly to all ($p > 0.05$) but one question. Mentors were more neutral that the event helped them feel more comfortable around trainees at the conference ($p = 0.01$). Otherwise, participants indicated the event was enjoyable, planned to participate again, and felt empowered to make further connections outside of the event. Free responses underscored these themes and suggested increasing time per encounter.

Conclusions Virtual speed mentoring is a feasible and effective alternative to in-person speed mentoring and may be a helpful adjunct to in-person mentoring.

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Introduction

Mentorship is a vital component of residency and medical school that fosters growth, aids in career planning, and helps cultivate success extending into future practices as a physician [1, 2]. Trainees may have difficulty identifying a local mentor or may require targeted guidance that is unavailable at their home institution, such as gender-specific, diversity, or sub-specialty mentorship. A national specialty society meeting provides a natural opportunity for mentees and potential mentors to interact. A time-efficient, pre-planned event that offers an organized and supportive structure can eliminate typical barriers to identifying suitable mentors. One approach is "speed mentoring," in which mentees are able to interact with multiple mentors in a rapid-fire session, which gives mentees an opportunity to benefit from various perspectives and insights on specific professional and career-related queries [3]. While these interactions are brief, speed mentoring events have been shown to cultivate mentor-mentee relationships that extend beyond the initial event [4, 5]. The Society for Academic Emergency Medicine (SAEM) held a speed mentoring event at its 2019 annual meeting (SAEM19) which was in the typical in-person format.

During the COVID-19 global pandemic, social-distancing guidelines were instituted [6] and the 2021 SAEM annual meeting (SAEM21) shifted to a virtual format. As a result, events such as the speed mentoring event, aimed to foster mentorship between Emergency Medicine (EM) faculty, residents, and medical students, had to be restructured to a virtual format.

While papers have described virtual speed mentoring during the COVID-19 pandemic [7, 8], there has been no direct comparisons between in-person and virtual speed mentoring. This study aims to compare virtual and in-person speed mentoring via the anonymous and voluntary event evaluation provided by mentors and mentees from the in-person SAEM19 and virtual SAEM21 events.

Methods

Medical students, residents, and faculty who attended the speed mentoring event at the SAEM annual meetings were eligible for inclusion in this study. A biography sheet was created by consensus by study group members to ascertain areas of interest and expertise to better inform the pairings. We ensured that each group was diverse, not only in experience, but also in gender, race, and ethnicity.

The SAEM19 trainees met individually and in-person for eight minutes with eight unique mentors, while the SAEM21 trainees met with four or five mentors for ten minutes via Zoom™. Prior to both events, we collected biography sheets (supplement 1) and ensured that underrepresented in medicine (URM) mentees met with at least one URM mentor. The completed biography sheets were shared with the intended matches prior to the event so mentees and mentors could prepare and ask more focused questions during the speed-mentoring encounter. Additionally, the biography sheet also acted as a business card with contact information for follow-up. While registration for the SAEM19 speed mentoring event was uncapped, the SAEM21 speed mentoring event implemented a capped registration to ensure a seamless experience in the newly adopted virtual format. Participants were accepted on a first-come, first-served basis.

A five-question event evaluation instrument was designed by the study team, consisting of residents and EM faculty with expertise in mentorship and program evaluation. It was administered at the end of the SAEM19 (in-person) and SAEM21 (virtual) speed mentoring events. Completion was both voluntary and responses were anonymous. The first four questions had response options on a five-point Likert scale, while the fifth question was open-ended to collect narrative feedback. Responses for each question from SAEM19 and SAEM21 were compared using Fischer's Exact Test, with a $p < 0.05$ as significant. This study was certified as exempt by the Institutional Review Board at the primary study site.

A qualitative analysis of the free responses from Question 5, "What did you like or dislike about the event," was conducted by three members of the study team (WWS, KG, JAL) using the Framework Method [9]. Each member inductively coded responses individually. Subsequently they collaboratively discussed and iteratively refined thematic categories until saturation was achieved. Disagreements were resolved through consensus-driven dialogue.

Results

There were 48 mentor and 48 mentee participants at SAEM19, and 13 mentor and 13 mentee participants at SAEM21. Responses from the Likert questions for both SAEM19 and SAEM21 are displayed in Fig. 1.

The response rates for mentors and mentees were 89.6% (43/48) and 77.1% (37/48) for SAEM19, and 76.9% (10/13) and 84.6% (11/13) for SAEM21, respectively. Between SAEM19 and SAEM21, participants responded similarly to all questions ($p > 0.05$) except for Mentor Question 4, "How likely are you to feel more comfortable around trainees at the conference because of this event?" ($p = 0.01$).

Analysis of Question 5 revealed one prevalent theme to be "enjoyment." Participants from both years reported that they were happy with the event and found it to be valuable.

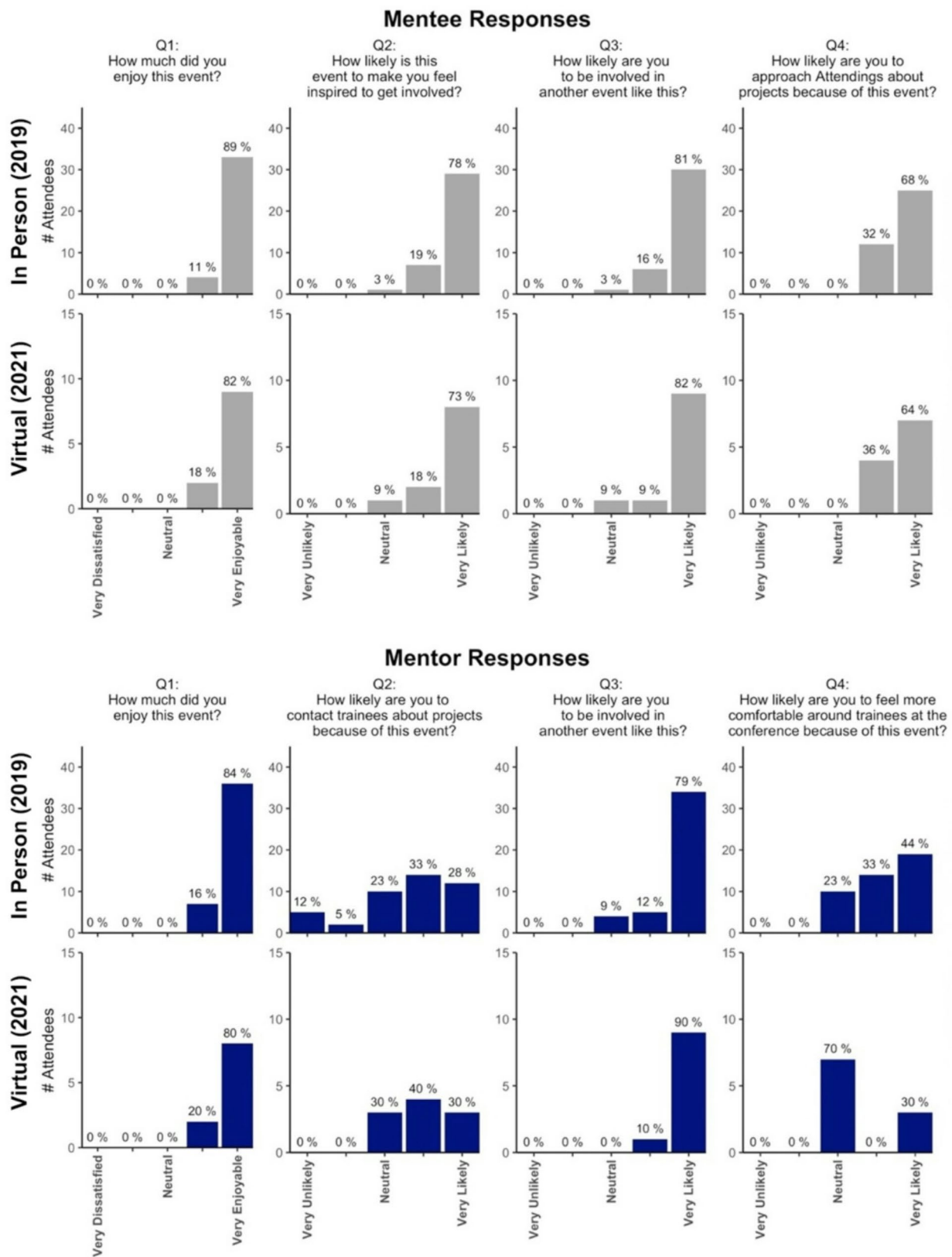*SAEM19: "Great event! I really enjoyed it."*

Fig. 1 Mentor and Mentee Evaluations of In-Person and Virtual Speed Mentoring Events at SAEM19 and SAEM21 respectively

SAEM21: "The mentors have such a wealth of knowledge owing to their career experience which is helpful both for myself as a 3rd year but also in helping to plan for the future."

Another prevalent theme was "time." Both mentors and mentees felt that 8 min and 10 min were too short respectively at SAEM19 and SAEM21

SAEM19: "Longer time to talk! 8min flies by fast!"
SAEM21: "I do want the mentees to know they can continue to reach out for advice, as the 10 minutes went too fast!"

Other notable theme was "variety." Faculty members suggested other permutations of this event such as speed mentoring for faculty and even expanding beyond just one event at the annual conference.

SAEM19: "Is there a way to have faculty mentoring faculty? All of my mentees were residents/ med students and as faculty I would really enjoy getting speed mentoring as a mentee from other faculty."
SAEM21: "I think using Zoom may allow many folks who can't otherwise come to conferences personally find mentors. Would like to see this expanded outside the conference."

Lastly, one of the themes identified are "environmental challenges." For SAEM19, it was about the physical space. Participants noted that they would have liked a more obvious check-in table, a quieter space, and water at the tables. Meanwhile for SAEM21, feedback was related to technology. Participants noted that when they were moved from one breakout room to the next, the transition could be a little abrupt.

SAEM19: "Sound Baffles."
SAEM21: "Biggest thing to change if virtual next year would be more heads up before room changes - in one of my room changes [my mentee was] "pulled" from the room mid-sentence. That said, the breakout rooms were great and otherwise seamless."

Discussion

Speed mentoring is a relatively new concept that has been employed to facilitate the development of longer-term mentoring relationships [3–5]. Because of the inability to meet face-to-face in 2021, we transitioned our in-person speed mentoring program to a virtual venue which proved to be an effective alternative. Faculty and trainee participants responded similarly to most questions for both formats SAEM19 (in-person) and SAEM21

(virtual) indicating that the event was very enjoyable and they are very likely to participate again. An exception was observed in that mentors remained more neutral regarding how the event influenced their comfort level in engaging with trainees at the annual meeting. This may be attributed to the phrasing of the question, "at this conference," which is less applicable to a virtual setting. Unlike in-person conferences, where attendees naturally engage in conversations before sessions begin, virtual conferences offer fewer opportunities for spontaneous interactions. It was encouraging to note that the trainees did perceive a similar benefit from the virtual event to be able to approach faculty members after the event. Nobody from SAEM21 offered feedback wishing that the event was in-person, nor did they feel that the interactions were limited due to the virtual nature.

Our need to convert to a virtual speed mentoring event highlighted several potential advantages of this format. For example, it avoided some of the physical limitations when meeting in person, such as the noise level of the room or refreshment station placement. Additionally, the virtual format increased the accessibility of the event, circumventing geographical, time, and financial constraints. While the event was restricted to 13 pairs due to concerns about limitations in technology and human resources, our data from the SAEM21 event demonstrates that it is at least as beneficial and enjoyable as in-person speed mentoring. Virtual speed mentoring could be expanded to as many pairs as the in-person event because each Zoom™ session allows for a maximum of 100 breakout rooms. To mitigate technological malfunction or human error (e.g. accidental closure of all breakout rooms), speed mentoring groups could also meet in separate Zoom™ links.

Future considerations include conducting a separate virtual speed mentoring event outside of the SAEM annual meeting to capture participants who could not make the in-person meeting. Hosting speed mentoring events at different times of the year ensures that mentees receive guidance tailored to the evolving stages of their careers, addressing their mentorship needs as they progress. Additionally, as one of the faculty mentors suggested, this type of speed mentoring event could be beneficial at multiple career stages (e.g. senior faculty speed mentoring junior faculty). Virtual speed mentorship events could also easily be applied beyond EM for use by any specialty or career field and on a smaller scale for mentorship in individual residencies or medical schools.

Limitations of this study include variations in the mentors and mentees who participated in SAEM19 and SAEM21, as well as a lower number of participants in SAEM21. While there were some returning participants, it was not possible to match the event evaluation responses because they are all anonymous. However,

given the uniform nature of most responses from both cohorts, it seems unlikely that this was a significant issue. There was also an increase in the amount of time for each dyad to meet (8 to 10 min) and a decrease in the number of pairings (8 to 4 or 5) between SAEM19 and SAEM21. This was intentional to improve the speed mentoring experience based on feedback from SAEM19 participants requesting more time with each encounter. It is unsurprising that extending the duration of each encounter did not impact survey responses for enjoyment, as participants still felt that time passed too quickly despite the increase.

Conclusion

Speed mentoring is an effective and timely option to expose trainees to a substantial number of potential mentors. Virtual speed mentoring is a feasible and effective alternative to in-person speed mentoring as evidenced by similar participant evaluations presented in this study.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12245-025-00860-0.

Supplementary Material 1

Author contributions

WWS conceived the study. WWS, JAL designed the study. WWS, JAL, LD acquired the data. ZTP performed the statistical analysis and prepared the figure. WWS, KG, and JAL conducted the qualitative analysis. WWS, KG, ZTP, LD, WCC, MAN, TH, AC, AT, JAL contributed to data interpretation. WWS drafted the manuscript. WWS, KG, ZTP, LD, WCC, MAN, TH, AC, AT, JAL contributed substantially to manuscript revision and approved the final version. WWS and JAL take responsibility for the paper as a whole.

Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethical approval

This study was certified as exempt by the Institutional Review Board at Yale University.

Competing interests

The authors declare no competing interests.

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