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Surgery Acting Internship Individual Learning Plans: Fostering Mentorship in the COVID-19 Era

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OBJECTIVE: Mentorship facilitates successful matching for surgical specialties. A formal mentorship plan may counteract restricted mentorship opportunities due to the COVID-19 pandemic.

 DESIGN: We surveyed medical students applying to surgery specialties who participated in our formalized mentorship program (MF) and those of a prior cohort who were informally mentored (MI). Epistemic Network Analysis was used to model qualitative responses.

SETTING: University of Wisconsin School of Medicine and Public Health.

PARTICIPANTS: Fourth-year medical students who matched into ACGME-accredited surgical specialties.

RESULTS: MF students (n = 12) met with their mentors more frequently than MI students (n = 13; p = 0.03). Both groups received career guidance, letters of recommendation and application preparation. However, the MI cohort reported greater psychological and emotional support whereas the MF cohort reported more assistance with skills development.

CONCLUSIONS: A formalized mentorship program fostered successful mentoring relationships despite limitations from the COVID-19 pandemic. (J Surg Ed 79:918–927. © 2022 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

KEY WORDS: Epistemic Network Analysis, individual learning plans, medical education, mentorship

COMPETENCIES: Practice-Based Learning and Improvement, Interpersonal and Communication Skills, Professionalism

INTRODUCTION

The decision to pursue surgical training after medical school is complex as applicants weigh many factors including their clerkship experiences, specialty-specific stereotypes, and lifestyle.1 Mentorship is a crucial component of medical education and support when applying to residency.1,2 Mentorship has been defined as a process in which someone with experience (the mentor) guides the development, both professional and otherwise, of another person (the mentee), through direct engagement.2 Surgical mentorship during the pre-clinical medical school curriculum increases student confidence and the likelihood that they pursue surgery.4 When connected with a faculty mentor, students report an array of benefits including improved satisfaction with career planning.5 Even students enrolled in surgical subinternships rated the development of mentoring relationships as one of the most important factors for confirming their specialty interest.6 Furthermore, students with a mentor in their intended field tended to match higher on their rank list.7 A recent study found that over 70% of medical students agree that mentors impact career plans and trajectory, and yet 59% believe that they did not receive enough mentorship in medical school.8

Barriers to establishing and maintaining mentorship connections exist. The busy schedules and competing commitments of surgeons may be prohibitive to healthy relationships with frequent contact.9,10 As a result, mentors prefer group activities with mentees, although
mentees desire one-on-one interactions perhaps due to highly individualized needs. The weight of initiating and maintaining mentorship connections often falls on the mentee who has little authority and autonomy. Additionally, students under-represented in surgery (e.g., women) often struggle in finding mentors with shared identities given relative lack of diversity in surgery compared to non-surgical specialties.

A new barrier to establishing mentorship arose in 2020: the COVID-19 pandemic. With the nationwide shortage of personal protective equipment for healthcare workers and the fear of spreading SARS-CoV-2 via asymptomatic carriers, the Association of American Medical Colleges announced that medical students should be removed from all patient-facing clinical activities. Despite personal disappointment, medical students supported this disruption of their medical education to protect patients. Medical schools across the United States shifted to online preclinical coursework and consolidated didactic sessions for students entering clinical rotations. However, these changes may have heightened the barriers for establishing and maintaining mentorship. Clinicians have been called upon to devote more time to patient care as intensive care units nationwide filled with COVID-19 patients. Subsequently, medical students had decreased exposure to attendings, stifling natural mentorship development.

Mentorship remains crucial to students applying to surgical specialties despite the additional challenges of the COVID-19 pandemic. A department-driven, formalized mentorship program was created to encourage interactions and relationship building among students and faculty that were otherwise lost due to COVID-19-imposed restrictions. The aims of this study were to 1) evaluate the impact of a formalized mentorship program on the surgery acting internship; and 2) compare the mentor-mentee relationships of this cohort to those of a previous cohort serving as a historical control. We hypothesized that the formalized mentorship program promoted relationships between faculty and students that were at least as strong as they had been the year prior.

MATERIALS AND METHODS

Survey

Although full IRB review was not required for this education study, the project was registered through the University of Wisconsin’s Quality Improvement/Program Evaluation Self-Certification Tool. The survey on mentorship was based on previous survey instruments and was generated using Qualtrics software, versions June 2019, October 2020, and April 2021 of Qualtrics, Copyright © 2020-2021 Qualtrics. Qualtrics and all other Qualtrics product or service names are registered trademarks or trademarks of Qualtrics, Provo, UT, USA (https://www.qualtrics.com). The survey was comprised of four sections: 1) Defining Your Mentors; 2) Your Most Influential Mentor; 3) Self Discovery in Mentorship; and 4) Post-Match (Appendix A).

Participants and Conditions

Two cohorts of fourth-year medical students at the University of Wisconsin School of Medicine and Public Health who matched into General Surgery—Categorical, Neurosurgery, Ophthalmology, Orthopedics, Otolaryngology, and Plastic Surgery were invited to participate in a survey about mentorship. The first cohort comprised members of the Graduating Class of 2020, who were not formally assigned surgical mentors on their acting internship (i.e., sub-internship) during their final 18 months of clinical training (Informal Mentorship, MI). This cohort was surveyed once after graduation (June 2020). The second cohort comprised members of the Graduating Class of 2021, who were formally assigned surgical mentors on their acting internships (Formal Mentorship, MF). Their total patient care time was reduced by 9 weeks due to the COVID-19 pandemic. This cohort completed sections one through three of the survey in February 2021 and section four in April 2021.

Individualized Learning Plans (ILPs) for Mentorship

The MF cohort received an ILP and Mentoring Contract as a part of their acting internships (Appendix B). The contract included a summary of student self-reflections, which included student-identified clinical strengths and areas for improvement, their motivations for pursuing a surgical career, a topic for independent study, and what they hoped most to get out of their acting internship. The ILP asked students to describe three professional goals for their rotation using the SMART (specific, measurable, attainable, results based, and time bound) goals framework. Each student’s documents were shared with his or her faculty mentor. This was intended to help students and their mentors define a successful acting internship and included specific actions to focus on reaching each goal. Each dyad was instructed to meet weekly to discuss student progress. General guidelines for each weekly meeting were provided and designed to facilitate relationship building and solicit formative feedback.
Quantitative Analysis

Descriptive statistics were used to describe the quantitative survey elements in Microsoft Excel. Student’s t-tests and/or Chi-Square analyses with a p-value of 0.05 were used to determine statistically significant differences between the M_I and M_F groups.

Qualitative Analysis & Epistemic Network Analysis

After reviewing the data, the research team developed codes using an inductive process of conventional content analysis in order to identify themes of mentoring reported by study participants. Epistemic Network Analysis (ENA) was then applied to the qualitative data to demonstrate and quantify connectedness between content themes. Comparison groups were based on graduation year and thus M_I and M_F. The responses of all survey questions from both the M_I (n = 13) and M_F (n = 12) cohorts were included in the inductive process of conventional content analysis. Data was deidentified and then manually coded by theme by one surgical resident who is part of the M_I cohort and did not code responses from the M_I cohort, one medical student who is part of the M_F cohort who did not code response from the M_F cohort, and two research assistants not affiliated with either cohort. Two overarching categories were identified: psychosocial support and career support. Within psychosocial support, there were four codes: (1) psychological and emotional support, (2) role modeling, (3) relatedness, and (4) work-life balance. Seven codes were identified in career support: (1) goal setting, (2) residency application preparation, (3) interview preparation, (4) letters of recommendation, (5) career guidance, (6) skills development, and (7) sponsorship. The qualitative codebook, including definitions and example quotes, is provided (Appendix C). When participant response code designation was unclear, the research team discussed which code best fit each response. After the research team qualitatively coded the data, the frequency of qualitative codes of each group was inputted into the ENA 1.7.0 Web Tool. The ENA algorithm uses a moving window to construct a network model of connectedness between codes in the context of each medical student response, and then compares them by graduation year (i.e., M_I compared to M_F). The ENA model normalized the network for each graduation year prior to subjecting them to a dimensional reduction. The dimensional reduction accounts for the two groups having different numbers of coded lines because the number of students differed between graduation years. The ENA model that results highlights the differences between the groups by constructing a network diagram. The nodes within the model are the qualitative codes that fell into either psychosocial or career support categories. The density/weight of the lines connecting the nodes reflect the degree of connections between codes. The plotted points can then be used to identify statistical differences between groups.

RESULTS

Quantitative Analyses

Demographics

Thirteen fourth-year medical students of the 2020 graduating class (M_I) and twelve fourth-year medical students of the 2021 graduating class (M_F) completed the mentorship survey, with response rates of 62% and 52%, respectively. All quantitative results are shown in Table. All students were between 25 and 34 years old. There were no significant gender differences: of the M_I cohort, 61% were male, vs 75% of the M_F cohort (p = 0.47). Of the M_I cohort, 6 of 13 were white, 4 were Asian, 1 was Middle

TABLE 1. Quantitative differences between M_I and M_F cohorts.

| Category                        | M_I (N = 13) | M_F (N = 12) | p Value |
|---------------------------------|--------------|--------------|---------|
| Demographics                    |              |              |         |
| Male, n (%)                     | 8 (61)       | 9 (75)       | 0.47    |
| Race, n (%)                     |              |              | 0.06    |
| White                           | 6 (46)       | 12 (100)     |         |
| Asian                           | 4 (31)       | 0 (0)        |         |
| Middle Eastern                  | 1 (8)        | 0 (0)        |         |
| American Indian                 | 1 (8)        | 0 (0)        |         |
| Multiracial                     | 1 (8)        | 0 (0)        |         |
| Non-Hispanic/Latinx, n (%)      | 12 (92)      | 12 (100)     | 0.31    |
| Participation in summer research program, n (%) | 12 (92) | 10 (83) | 0.49 |
| Mentorship                      |              |              |         |
| Same-gender dyad, n (%)         | 7 (54)       | 10 (83)      | 0.11    |
| No. of mentors, mean ± SD       | 4.2 ± 1.2    | 3.6 ± 1.0    | 0.16    |
| Frequency of meetings, n (%)    |              |              | 0.03*   |
| Multiple times per week         | 0 (0)        | 1 (8)        |         |
| Weekly                          | 1 (8)        | 0 (0)        |         |
| Twice monthly                   | 0 (0)        | 3 (25)       |         |
| Monthly                         | 2 (15)       | 6 (50)       |         |
| Every other month               | 4 (31)       | 1 (8)        |         |
| Less than every other month     | 6 (46)       | 1 (8)        |         |
| Mentee-initiated meetings, n (%)|              |              | 0.92    |
| 100%                            | 3 (23)       | 2 (17)       |         |
| 75%                             | 5 (38)       | 5 (42)       |         |
| 50%                             | 5 (38)       | 5 (42)       |         |

(continued)
Eastern, 1 was multi-racial, and 1 was American Indian. Only one student in the MI cohort self-identified as Latino. The MF cohort was entirely white.

Mentorship
Most mentor-mentee dyads were the same gender, and while there appeared to be more same-gender dyads in the MF cohort (83%) compared to the MI cohort (54%), this difference was not statistically significant (p = 0.11). MF students met with their mentors more frequently than MI students (p = 0.03). There was no significant difference in the percentage of mentees who reported having dedicated, goal-setting meetings with their mentors between the MI cohort (15.3%) and the MF cohort (36.4%; p = 0.24). There was no difference in the percentage of mentees who reported having dedicated, wellness discussion with their mentors between the MI cohort (23%) and the MF cohort (25%; p = 0.91). There was no difference in the degree to which mentees expressed their interests with their mentors between the MI cohort and the MF cohort (p = 0.37). There was no difference in the degree to which mentees expressed their career goals with their mentors between the MI cohort and the MF cohort (p = 0.18).

Post-Match
All students successfully matched into an ACGME-accredited residency program. Of the MF cohort, three matched into General Surgery, three into Otolaryngology, four into Orthopedic Surgery, one into Ophthalmology, one into Neurosurgery, and one into Plastic Surgery. Of the MI cohort, four matched into General Surgery, one into Otolaryngology, four into Orthopedic Surgery, two into Plastic Surgery, and one into Urology. Although students in the MI cohort matched into programs higher on their rank list (2.6 +/- 1.7) than those in the MF cohort (3.7 +/- 3.3), the difference was not statistically significant (p = 0.35). Over 2/3 of students in each cohort strongly agreed with the fact that their mentor helped them match into a desirable program. At least 3/4 of students in each cohort agreed or strongly agreed that they will stay in touch with their mentor in the future.

Qualitative Analyses

Qualitative Themes
Qualitative codes were categorized into psychosocial support and career support, though medical student responses often entwined categories so they related to each other within the data. See Appendix C for the qualitative codebook breakdown with definitions and example quotes.

Psychosocial Support. The category of psychosocial support encompassed the codes of psychological and emotional support, role modeling, relatedness between mentor and mentee, and work-life balance.

Psychological and Emotional Support. Nineteen students (11 in MI and 8 in MF) described instances where their mentors offered psychological and emotional support. A MI student defined mentorship as “[p]roviding support in whichever way a student requires, whether it’s technical or emotional.” This type of support required mentors and mentees to invest time and energy into their...
professional relationship. As a M₁ student described: “[My mentor] took the time with me to decide on what the best path was to accomplish my goal… [he] encouraged me at every point. Just made me feel that I was worth something to residency programs and just more confident.”

Role Modeling. Nine students (five in M₁ and four in M₂) touched on mentors as role models. Women and medical students of color represented 67% of the students who recounted role modeling in their experiences. One female student in the M₂ group described her mentor as “…someone who I aspire to be like. She models behaviors I would like to emulate; she has high expectations, she offers clear and direct feedback.” Another female student recalled her mentor “…has served as a remarkable role model for me as an aspiring female surgeon.”

Relatedness. Twenty-two students (eleven in M₁ and eleven in M₂) conveyed ways in which they connected to their mentor through shared characteristics and values. Students often conceptualized relatedness through the dimensions of identity, including race, gender, sexual orientation, religion, social class, and military status. Though shared identities were a common signifier for relatedness, students also conveyed connection with mentors through similarities in hobbies and interests, personality, work ethic, career paths, and work-life balance. Mutual worldviews and attributes aided students in developing a personal and professional relationship with their mentor, as described by one M₁ student: “I related to [my mentor] not just professionally, but personally…we’re both meticulous in similar ways. She’s humble and friendly and always treated me as an equal. She values work-life balance and family as I do.”

Work-Life Balance. Conversations about work-life balance was more common in the M₂ group (n = 7) than the M₁ (n = 3) group, but the majority of students in both cohorts did not seem to discuss work-life balance with their mentors. Those who did touch on work-life balance found the conversations helpful in learning strategies to balance career and family, especially within residency.

Career Support. The category of career support comprised of the following codes: goal setting, residency application preparation, interview preparation, letters of recommendation, career guidance, skills development, and sponsorship.

Goal Setting. Though goal setting was an expectation in the sub-Internship for the M₂ group, the majority of students did not specify having explicit goals set with their mentors. Though the broader goal of matching into their specialty choice was often discussed, short-term and long-term goals to get to that point seemed to be a less common topic.

Residency Application Preparation. All the students in both groups received residency application preparation from their mentors, though the type of assistance differed. The majority of students received feedback on their personal statements and curriculum vitae, but only two students met with their mentor to discuss the application process and what to look for in residency programs.

Interview Preparation. Nine M₁ and three M₂ students received interview preparation from their mentors, though none provided further detail on what that looked like.

Letters of Recommendation. All students received letters of recommendation from their mentors across both graduating classes. None explicated further on their letter, likely because the majority of students opt out from viewing letters of recommendation in the residency match.

Career Guidance. Across both groups, all students received some form of career guidance from their mentors. This seemed to be an integral part of the mentor-mentee relationship, as defined by a M₂ student: “[a mentor] fosters your professional development through constructive feedback, graduated autonomy, and career guidance.” Another M₂ student described their mentor as “…someone who knows and cares…is willing to provide guidance, teaching, and transparency as it relates to [their] field/career.”

Skills Development. Students who had clinical experiences with their mentors had the opportunity to receive feedback on the development of their technical and non-technical medical skills. Five students in the M₁ group and eleven M₂ students had some feedback regarding their skills in preparation for internship and residency. One M₂ student described his mentor as “…very honest about the aspects which I should improve on, in the OR and on the floor. He was very welcoming and involved me in the OR to teach me the very basics.”

Sponsorship. Seven M₁ students and six M₂ students felt their mentor doubled as a sponsor and advocate within their medical program and in other residency programs. Some students described sponsorship as an integral part of being a sponsor, as an M₂ student describes: “A mentor is usually someone who has a slightly higher position of power or experience who is willing to channel their knowledge or influence for the good of their mentee.” Students who experienced sponsorship from their mentor felt it positively benefited their career. A M₁ student described their mentor as “…willing to help me with anything I needed and…willing to go out of his way to help me. He helped pave the way to my career.”

ENA
Epistemic network analysis was conducted to depict the networks comparing the M₁ and M₂ groups (Figure). A two sample t-test assuming unequal variance showed M₁ (mean = -0.47, SD = 0.37, N = 13) was significantly different from M₂ (mean = 0.51, SD = 0.53, N = 12; t(19.42) = -5.34,
p < 0.01, Cohen’s d = 2.17). As depicted by the thicker, more saturated lines in both ENA models, both groups consistently received career guidance, letters of recommendation, and residency application preparation from their mentors.

Medical students in the MI group received more psychological and emotional support than those in the MF group. For the 2020 MI group, psychological and emotional support was strongly connected with residency application preparation and career guidance, though there were slim connections also with the codes of relatedness and letters of recommendation. MI students also appeared to receive more interview preparation than the 2021 group, though connections depicted in Figure were less dense for those codes. MF students received more skills development and had more conversations with their mentors about work-life balance. In both groups, students reported a lack of sponsorship and goal-setting in their professional relationship with mentors.

DISCUSSION

Here we evaluated our efforts to facilitate mentorship between fourth-year medical students interested in surgical specialties and faculty mentors at a time when the COVID-19 pandemic stifled opportunities for organic mentorship formation. The COVID-19 pandemic increased the pressure for effective surgical mentorships. Applicants had less exposure to attendings both at their home institutions and at away institutions, which can impact their match result, especially in competitive subspecialties. Clearly defining the role of mentors and developing learning objectives for surgical rotations are key to making the most of the experiences offered. Innovative approaches to support career planning are essential to meeting the needs of students in these challenging times. The results of this study document the impact of formalized mentorship on a surgical sub internship experience, highlighting the need to facilitate these faculty relationships. Although the pandemic forced students and faculty alike to navigate online meeting platforms, our program fostered mentoring relationships that achieved outcomes similar to those of historical controls. Most students agreed that their mentor helped them match into a desirable residency program and that they would remain in contact with their mentor in the future. The relative ease of virtual meetings may have increased the impact of mentoring relationships in current times. Others have suggested that technology enhances the ability of students to connect with faculty at other institutions to seek mentorship, especially if their home institution does not have a residency program in their intended surgical specialty.

ILPs promote adult learning. A survey of nearly 300 senior medical students who participated in a pilot study requiring ILPs on an advanced clerkship revealed that over half viewed the tool as a helpful framework for learning. Over 60% agreed that the ILP was useful in fostering discussion with faculty, which may enhance the development of mentoring relationships. Many students rated this instrument as moderately useful, which the authors attributed to unfamiliarity of the faculty with ILPs, suggesting the need for faculty development around this. Sharing learning goals with preceptors helped to align feedback with individual objectives of medical students on a pediatrics rotation; however, this did not improve the quality of the feedback itself.

Quantitative results showed that the students met with their mentors more frequently when the mentorship was structured. However, despite instituting an ILP, the MF cohort did not have statistically more formal goal-setting meetings compared to the MI cohort (36% and 15%, respectively). Both cohorts demonstrated that mentor-mentee dyads had a similar frequency of wellness discussions (23% and 25%, respectively). While mentorship requires a multi-faceted approach, goal setting is an essential component of successful mentorship; efforts to encourage mentors to engage in formal goal-setting
discussions should continue.20 While simply meeting with a mentor has been shown to decrease burnout and improve wellness among surgical residents, discussing wellness practices may further benefit mentees.29 It is possible that both goal setting and wellness were discussed but not explicitly framed correctly to students. Much like signposting when giving feedback, these specific discussion topics should be explicitly stated as an objective of a meeting in order to frame the conversation.30 Alternatively, mentors may not have adhered to the suggested discussion topics including discussions of goal-setting and wellness within weekly meetings.

Based on qualitative results, ENA analysis demonstrated significant differences in the type of mentorship received by students in each cohort. The Mf group received significantly more psychological and emotional support than the Mn group. The Mn group received more assistance with technical skills development than the Mf group. Career guidance, letters of recommendation, and residency application preparation were consistent between cohorts (Figure). Our qualitative findings are consistent with Kram’s mentor role theory, which proposed two broad categories of mentor functions: 1) developmental functions including sponsorship, coaching, protection, challenging assignments, and exposure; and 2) psychosocial functions including acceptance and confirmation, counseling, friendship, and role modeling.31 Our data suggest that Mn mentors primarily served developmental functions whereas Mf mentors primarily served psychosocial functions. Interestingly, meta-analyses suggest that informal mentors provide more mentoring functions and are more effective overall than formal mentors, which may hinge on mentor selection or the length of the mentoring relationship.32 Among surgical residents, structured mentorship both fosters close faculty relationships and increase scholarly productivity.33

While we did not assess the relative strength of the mentoring relationships between groups, both Mn and Mf fostered student development. A combination of formal and informal mentors, which may bring different benefits to learners, seems ideal. This would provide an appropriate balance between consistency of mentorship experiences and individual flexibility.34

Gender parity in surgery lags behind other medical specialties, which poses a challenge for female surgical trainees looking for mentorship. Over half (53.6%) of medical students who matriculated in 2020 were female and nearly half (43.1%) of general surgery residents in 2019 were female.35 Published surveys recommend asking mentees for their preferences in mentor characteristics when creating assignments. When asked directly, female mentees tend to prefer female surgeon mentors.36,37 This remains problematic for surgical students and trainees as female mentors at the attending level are scarce within general surgery and even more rare in surgical subspecialties like orthopedic surgery.35

An even larger gender disparity exists among surgical leaders. In 2020, only 8% (30/374) of Department Chairs of Surgery were women compared to 19% of Department Chairs of all medical specialties across the country.35 Gender parity in surgery at all levels can be achieved through a unified, concerted effort, but likely requires mentorship of women by women.37

Racial minorities also suffer from underrepresentation in surgery. A 2018 study found that while Blacks/African Americans made up 12% of the US population, they constituted 6% of US medical students, 6% of surgical residents, and only 2% of full Professors of Surgery.36 A similar trend was seen among Hispanic Americans.38 One qualitative study examined the barriers to pursing academic surgery among African American medical students who described experiencing higher levels of scrutiny, being forced to serve as representatives of their community, and lack of mentorship opportunities.39 Expanding diversity in surgery will require mentorship opportunities for underrepresented minority groups.

This study is not without limitations. As a single-institution study with small sample sizes, generalizability is constrained. The Mn students were a more homogenous group (75% male, 100% white) than the Mf group (61% male, 46% white) with racial differences between cohorts approaching statistical significance (p = 0.06). As a variety of factors impact a student’s decision to pursue surgery, it is difficult to speculate the reason for this difference. Longitudinal surveillance of the students matching into surgery should be performed to ensure that a diverse group continues to pursue surgery. As it relates to this study, perhaps a less diverse group of students is easier to successfully match with mentors of similar background and characteristics; thus, the success of formalized mentorship may be contingent upon having easily accessible mentors of a variety of backgrounds matching those of the mentees. Methodologically, cohorts were asked about the quality of their mentoring relationship (section 4, “Post-Match”) at slightly different timepoints: June for Mn and April for Mf. While the survey timing may bias the results, it is unlikely that the few months difference between surveying the different cohorts drove significant differences between groups. Both cohorts were surveyed shortly after matching and none of them had begun their internships. The first postgraduate year contains many new experiences during which learners may draw upon past lessons from mentors and gain a different appreciation for those relationships. Furthermore, although this study did compare match outcomes between groups, other objective data including clerkship grades, shelf scores, etc. was not described, which would provide opportunity for future
study. Nevertheless, reporting subjective and objective outcomes between a historical control and an experimental group enhances the value of our study as the majority of previous work on mentorship is less robust. Future iterations of this mentorship program should include a faculty orientation to mentoring medical students and a discussion of best practices including explicit conversations about mentee goal-setting and wellness. Specific training on psychosocial versus technical mentee support should be included. Because formalized mentorship may not sufficiently foster psychosocial support, ways of demonstrating psychosocial support should be described. Matching faculty and student interests, both academic and otherwise, may enhance the quality of the relationship.

CONCLUSION

Instituting a formalized mentorship experience as part of a surgical acting internship for fourth-year medical students connected students to surgeon mentors at a time when students were largely removed from the clinical setting. This structured program helped students meet with their mentor more frequently. Students with formal and informal mentorship agreed that their mentor helped them match in a desirable program and that they would stay in contact with them in the future, an indication of relationship satisfaction. Mentors that are assigned informally may provide greater psychological and emotional support whereas formally assigned mentors give more feedback on skills development. Both informal and formal mentorship models offer unique approaches to mentorship and students would likely benefit from guidance that institutes a hybrid approach.

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**SUPPLEMENTARY INFORMATION**

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.jsurg.2022.02.012.