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A Guided Near-Peer Mentorship Program for Transitioning into Clinical Clerkships at a Regional Medical Campus

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Abstract

Background

Transitioning from preclinical to clinical medical education is a significant milestone in medical training; however, it is associated with anxiety and uncertainty about adapting to a new work and learning environment. These feelings may be additionally heightened when students are also transitioning to a branch or regional campus for their clerkship training. A guided, near-peer mentorship program was designed at a regional medical campus in hopes of reducing anxiety associated with transitioning into clinical rotations, as well as to teach clinical medical students how to effectively mentor a fellow student.

Methods

This curricular improvement program was developed and implemented at a regional campus of a US Midwestern medical school. A list of 14 topics for discussion was created from responses to reflection questions completed by students participating in the program. These topics were sorted into meeting guides that mentors could reference during three individual meetings with their mentee. Mentors attended a workshop prior to the start of the program to learn more about effective mentorship in medicine. Participants from the first two years of this program were asked to complete feedback surveys evaluating their experience.

Results

Forty-one of 48 potential second-year students agreed to participate as mentees and 40 of 48 potential third-year students agreed to participate as mentors. Ninety-two percent of mentees agreed that participating in the program decreased their stress and anxiety about transitioning into clerkships and 96% reported they would recommend the program to other students. Among the mentors, 93% reported they would recommend the program to other students and 78% agreed that the mentorship skills they practiced during the program are useful in their professional and academic development.

Discussion

With the introduction of this guided, near-peer mentorship program, mentees reported feeling supported in their transition into clinical clerkships and mentors reported feeling prepared to effectively mentor a fellow student. Even though one-on-one programs can be somewhat time-intensive to establish and execute, the skills gained by mentors may serve them for the rest of their careers and individualized advice given to mentees could help to decrease anxiety in a high-stress transition.

Background

The transition process from preclinical/didactic learning in the first years of medical school to clinical clerkships is a major milestone in medical education.

The transition allows students the opportunity to see how basic medical sciences are applied to and

make a difference in real patient lives. However, this change is associated with significant feelings of anxiety, uncertainty, and self-doubt.¹⁻³ When starting clinical rotations, students report having difficulty understanding roles and expectations; adjusting to the clinical work culture; applying learned knowledge;

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using clinical technical, communicational, and interpretive skills; learning logistics of each clinical setting; and managing time appropriately.^{1,4} Medical schools have designed transition courses to address these areas and help students learn and feel more comfortable with clerkship-specific knowledge and communication skills.⁵⁻⁷ The majority of these endeavors are ungraded courses that last one day to one week in length and include sessions to learn procedural skills (i.e., intravenous line insertion or suturing), learn how to use the electronic medical record, practice oral presentations, and to review professionalism.⁵

Despite formal courses, students often seek additional guidance regarding unspoken expectations, study resources, and practical tips from senior medical students.¹ Senior students therefore become an invaluable resource for transitioning into clerkships, however, not all students have the connections or confidence to approach senior students. Additionally, students planning to do their clinical rotations at a regional campus or alternate site other than the main academic hospital may have more difficulty identifying and contacting senior students who would have specific tips regarding the clinical sites where they will complete training. Another domain medical schools are attempting to address is the facilitation and encouragement of mentorship relationships, as they have been shown to have critical influences on personal development and career advancement.⁸ Despite known advantages of mentorship, there are limited opportunities during medical training or practice to learn how to mentor effectively.⁹

Given the need for increased individualized support for transitioning into clinical clerkships at regional medical campuses and the apparent paucity of training in effective mentorship at the medical student level, presented is a designed guided, near-peer mentorship program. The aims of the project were: 1) to establish a formal, guided near-peer mentorship program to reduce anxiety and ease the transition into clinical clerkships, and 2) to teach clinical medical students how to effectively mentor a fellow student.

Methods

Setting

A mentorship curriculum was developed and implemented at a regional medical campus of a large US Midwestern medical school. The regional campus is in a metropolitan area 115 miles from the main medical school campus. Every year 24 students, 16% of the medical school class, relocate to the regional campus to complete all of their core clinical clerkship training at five different teaching hospitals in the metropolitan area. Other third- and fourth-year medical students can opt to complete select core or advanced rotations at the regional campus as well. The presented project included four cohorts of students completing their core clerkship year training at the regional campus. Third-year clinical medical students from the 2020 and 2021 cohort had the opportunity to sign up to serve as near-peer mentors to the second-year preclinical students from the 2021 and 2022 cohort, respectively.

Program & Curriculum Development

After determining which students in the four 24-person cohorts elected to participate in the program, those participating students were asked to read and review two academic papers on mentorship in order to prime their thinking regarding relevant topics including the benefits of mentorship, traits found in effective mentors and mentees, and how to approach common pitfalls in mentorship relationships.^{10,11} Participants were asked to complete a set of reflection questions regarding their decision to participate, previous mentorship experiences, and their concerns regarding the new experience (Table 1 and 2). Mentors were additionally asked what they wished they had known when starting clinical clerkships and mentees were asked their specific concerns with transitioning. The goal of these questions was to encourage both groups to reflect on their past mentorship experiences so that they could enter the project with more targeted objectives in mind. Common themes were also identified from the responses to these questions and used, along with ideas written about mentorship in several academic papers,^{8,12,13} to create an interactive workshop on mentorship, as well as written guides for three required individual mentee-mentor meetings. Each of the three meeting guides listed information about the specific topics for discussion (Table 3). Mentees were

also encouraged to bring up any additional questions they had about their transition. Mentees were paired with mentors based on common specialty/academic interests, hobbies, hometown, work experiences, etc. The first year of the program, the mentor interactive workshop was led by a medical student who designed and then facilitated the workshop. The second year of the program, the workshop was led by two medical students who had been mentees the year prior. During the session, mentors were instructed and reminded to meet with their mentee at three specific time periods (Table 3), using the meeting guides and tools they learned about during the workshop. Pairs were encouraged to meet through videoconferencing as mentees were completing preclinical education at the main campus while mentors were completing clerkships at the Branch Campus, or in person if possible.

Table 1. Mentee Reflection Questions

1. What are you hoping to get out of this peer mentoring experience?
2. What concerns do you have about having a mentor or being a mentee?
3. Did you have a peer mentor as an incoming first-year medical student? How was that experience for you? How could it have been better?
4. What is your biggest concern as you prepare to start clinical rotations?

Table 2. Mentor Reflection Questions

1. Why did you sign up to mentor a second-year medical student transitioning into clinical rotations?
2. Have you ever had a mentor, such as a peer mentor, as an incoming first-year medical student? If so, how was the experience for you? How could it have gone better?
3. What concerns do you have about assuming the role of a mentor?
4. What are some characteristics or skills of an effective mentor? Which of these do you feel particularly strong in?
5. What do you hope to gain out of the experience of being a mentor?
6. What would you want to learn more about to make you a more effective mentor?

7. What do you wish you would have known or what advice do you wish you had been given before starting clinical rotations?

Table 3. Topics to Cover in Mentee-Mentor Meetings*

<p>Meeting #1 (2-3 months prior to starting clerkships)</p>	<ul style="list-style-type: none"> - Understanding the basics of clinical rotations (i.e., what is rounding, SOAP presentations, typical schedule, etc.) - Understanding roles, responsibilities, expectations - Tips on studying prior to starting core clerkship training - Tips on moving to the Branch Campus - Life in the new city (recreational activities, exercise, events, food, support, etc.)
<p>Meeting #2 (1 month prior to starting clerkships)</p>	<ul style="list-style-type: none"> - Specific details about the first rotation(s) (i.e., daily schedule, tips about working with certain attendings/residents, expectations) - Setting goals for clerkships - Study tips/strategies for shelf exams and clerkships - Time management and prioritizing - Tips on wellbeing/work-life balance - Available medical student counseling services
<p>Meeting #3 (1-2 months after starting clerkships)</p>	<ul style="list-style-type: none"> - Concerns from first clerkship(s) - Reflections about clerkship experiences

	<ul style="list-style-type: none"> - Discussing/screening for possible mistreatment - Study tips/strategies for USMLE Step 1 exam
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*These suggested topics could be covered multiple times in different contexts throughout the mentorship experience.

Program Assessment

Anonymous feedback surveys (Supplemental Document) were used to measure utilization and satisfaction with the program and curriculum. Survey links were distributed via email and participants were given approximately one month to respond. Reminder emails were sent to all participants twice during the one-month response period. The surveys asked about the number of times each pair met, approximate total time spent meeting, format of meetings (i.e., videoconference call, telephone, in person, etc.), helpfulness of each of the 14 suggested topics for discussion given to mentors in the meeting outlines (Table 3), and perceived usefulness of participating in the program. Likert-type scales were used for rating the helpfulness of suggested topics (i.e., Not Helpful, Somewhat Helpful, Very Helpful, Extremely Helpful, or Did Not Discuss) and for rating evaluating perceived usefulness of participating in the program (i.e., Strongly Agree, Somewhat Agree, Neither Agree or Disagree, Somewhat Disagree, or Strongly Disagree). The surveys also included open-ended questions regarding other topics participants thought needed to be discussed, the greatest strength of the program, and any other suggestions for improving the program. The mentor survey additionally inquired about their growth and confidence mentoring a fellow student after participating in the program. This curricular improvement project and the data collected within the feedback surveys were classified as Exempt by the Institutional Review Board at the regional medical campus (#EX2021-059). All mentees and mentors volunteered to participate and received no compensation or formal commendations for their involvement.

Results

Forty-one of the 48 potential mentees participated in the program over the two-year period, with 25 of them completing the mentee feedback survey. Included in this group was one mentor who was paired with two mentees. Similarly, 40 of the 48 potential mentors participated, with 27 completing the mentor feedback survey. Presented data are based on those students that completed the surveys. The median number of reported meetings was three (interquartile range [IQR]: 2, 3) with an overall median total meeting time of 120 (IQR: 90, 180) minutes. Though the median number of formal meetings was equal to the required three, several mentees commented that they texted, called, or had contact with their mentor in other less formal settings in addition to their formal meetings. The most common meeting formats were videoconference calls with 92% of pairs using this method for at least one meeting, and meeting in person with 44% of pairs using this method for at least one meeting. Sixteen percent of pairs used a phone call format for at least one meeting.

Mentee Feedback

Of the topics listed in Table 3, "Understanding the basics of clinical rotations" and "Specific details about the first rotation(s)" were the topics reported most commonly as "Extremely Helpful" by mentees. Other topics that mentees commonly rated "Extremely Helpful" or "Very helpful" included: "Understanding roles, responsibilities, expectations," "Tips on moving to the Branch Campus," "Life in the new city," "Being reflective about clerkship experiences," and "Study tips/strategies for shelf exams and clerkships." The majority of mentees (23 of 25) did not have any suggestions for additional topics to discuss, however one commented on potentially discussing one's mindset when entering rotations – "I went in feeling like I should love clerkships, and I really did not love my first rotation. I feel like you get hyped up during pre-clinicals that everything is going to be better when rotations start and you're going to love it - maybe it would be nice to hear that it's ok and NORMAL for that not to be the case." Another mentee commented "I think the above list is extremely thorough. I think topics outside of this list would be more individualized topics and most likely not something that everyone needs to discuss."

When mentees were asked to rate the degree to which they 'Agree' with the statement "Meeting with a student who had recently undergone this transition decreased my stress and anxiety about the experience", 23 (92%) students Strongly or Somewhat Agreed. Additionally, 22 (88%) Strongly or Somewhat Agreed with the statement "My mentor understood the challenges I faced when transitioning into clinical clerkships." When asked if participating in the program was a beneficial experience, 23 (92%) of mentees responded 'Yes', one responded 'No', and one responded 'Unsure'. When asked if they would recommend participating in the program to other students 24 (96%) responded 'Yes' and one responded 'No'.

When asked about the greatest strength of the program, 20 of the 25 mentees explicitly commented on appreciating having a specific person who had recently undergone the transition into clerkships at the Branch Campus to address questions and to provide advice. One mentee commented "I was feeling awfully nervous about all the unclear aspects of core year & my mentor helped ease my mind about many different topics about which I was concerned." Another commented "Having a great mentor really made my year amazing and so much smoother. I think strong mentors are the greatest strength." Lastly, one responded "Having someone who had experienced transitioning into rotations specifically at the branch campus. I really valued that my mentor had a list of topics to discuss, but she was always very open and receptive to discussing other topics as I brought them up. I found this very helpful to have a better idea of what to expect over the next year, and also hear ideas on how to make the most out of rotations while maintaining a school/life balance." One mentee additionally pointed out their appreciation of having meetings leading up to as well as after starting clerkships: "I am glad that there were a required number of meetings beforehand so that I knew my mentor a little bit first. I was also able to reach out to my mentor when I was struggling once rotations started, so that was good."

When mentees were asked how the program can be improved, most (22 of 25) did not have any suggestions for changes and only had positive feedback. One of the three mentees who had more constructive feedback commented "The matching process was disappointing. I just got paired with

someone who I felt was not similar to me at all and didn't fit what I described in the initial match profile. This made it a huge burden to have to meet with them." Of note, this comment came from the one participant who responded that they did not find the program a beneficial experience overall and that they would not recommend it to other students. Another mentioned an area of improvement could be "Making sure that all mentors are engaged." The final suggestion for improvement was to have one to two more required meetings scheduled after mentees started clerkships in order to check-in. The remaining 22 mentees either commented that they had no suggestions and/or commented on how much they appreciated the program or their specific mentor.

Mentor Feedback

When mentors were asked to rate the degree to which they 'Agreed' with the statement "I grew in my abilities to mentor a fellow student by participating in this program," 21 of 27 (78%) Strongly or Somewhat Agreed. Similarly, 21 (78%) Strongly or Somewhat Agreed with the statement "The mentorship skills I practiced during this program are useful in my professional and academic development." Lastly, 22 (81%) Strongly or Somewhat Agreed that "The meeting outlines/guides were helpful references for topics to discuss with my mentee." Among the 27 mentors who responded to the survey, 25 (93%) thought participating in the program was a beneficial experience and would recommend participating to other students. Two mentors were unsure if it was beneficial and were unsure if they would recommend it to others. Neither of these two respondents left any comments in the free response question asking how the program can be improved.

When asked the greatest strength of the program, 19 of the 23 responses to this free response question focused on being able to use their lived experiences to decrease anxiety and make the transition go more smoothly for junior students. One mentor commented "The greatest strength is that the program exists! This was a great way for preclinical students to have a go-to person to ask questions. I remember I did not know many clinical students when I was about to start clerkships and did not know who I would feel comfortable turning to for questions, so this was a great way to combat that." Several comments also indicated appreciation for the meeting guides – one mentor commented "Meeting

guides and the structure gave me something to go off of so that we weren't just staring at each other with nothing to talk about. I wish that I had received this guidance when I was starting rotations."

When asked how the program can be improved, 23 of 27 did not have or report any ideas for improvement and only had positive feedback. One mentor suggested having several more reminders to check in with their mentee, while another mentor requested more flexibility with scheduling the required meetings. One mentor did comment on the commitment of all mentors involved, "Appears to be a lot of 'variance' in quality of mentorship based on my mentee telling me some of her classmates don't feel their mentors were all that helpful. Quality control is probably harder to manage on your end, though. Nonetheless, I think mentors who sign up have good intentions, but perhaps not always great impact."

Discussion

With the introduction of the guided, near-peer mentorship program, mentees reported feeling well supported and overall found the experience beneficial in decreasing anxiety surrounding the transition into the clinical environment. Mentors also reported the experience valuable overall and appreciated the increased guidance on how to mentor effectively in this context. Mentor comments confirmed they found the experience fulfilling because they were able to use their prior experience to support another student. Additionally, the meeting guides and suggested topics for discussion were effective tools based on the positive feedback from both mentees and mentors. Though this pilot was trialed on a small cohort of students, it could easily be adapted and implemented with an entire medical school class. Additionally, the curriculum is adaptable to situations where students are living in different geographic locations, given meetings in this pilot took place largely by videoconference calls which proved effective.

Studies have evaluated the effectiveness of near-peer mentorship to ease the transition into medical school^{14,15} and other studies have assessed various outcomes relating to formal transition courses,⁵⁻⁷ however, the presented results appear to be the first to describe and evaluate a one-on-one near-peer mentorship program for transitioning from preclinical to clinical curriculum in medical school. The results

from evaluations are congruent with other studies that have found that medical students find peer mentoring and teaching contribute positively to their personal and professional development.^{16,17}

The program was not without challenges, evidenced by a couple of comments regarding mentor commitment and quality. One of the goals of the mentorship workshop and the meeting guides was to train mentors and provide additional structure so that mentees might receive a fairly uniform experience. It proved challenging to orchestrate seamless mentee-mentor matches based on interests and backgrounds, as well as closely monitor every mentee-mentor pairing, and this is an area for future improvement. In order to ensure mentor quality and maintain accountability, a faculty member or other staff not directly involved in the creation or implementation of the program could confidentially check in with each mentee and make changes to pairings or give guidance to mentors as necessary.

The primary limitation in evaluating feedback from this program involved the sample size and use of a single medical school. Sixty-four percent of participants completed the study surveys – with the possibility of selection bias playing a role in the largely positive feedback about the program. Future studies comparing the experience of other students not involved in the mentorship program would be beneficial in determining the net effect of the program. Additionally, given study surveys were anonymous, they were not matched for mentor and mentee pairings. This design process limited understanding whether reported results between pairs were concordant. Lastly, additional information could be collected on student anxiety or burnout to formally assess these constructs and the project's impact on them.

In conclusion, the guided near-peer mentorship program described and evaluated here proved effective in lessening the anxiety associated with transitioning from didactic medical education to clinical rotations, through connecting junior preclinical students with experienced clinical students. These clinical student mentors supported their preclinical mentees through the transition by providing individualized support, as well as answers to common questions regarding unspoken expectations, recommended study resources and habits, and logistics of the clinical environment.

Furthermore, this program includes targeted components to improve the mentoring skills of senior medical students. Mentorship and peer learning is an essential aspect of medical training and practice, and the development of these skills early on in training will be an asset as students move on to post-graduate training. Though a one-on-one program as described here can be somewhat time-intensive to establish and execute, the skills gained by mentors can serve them for the rest of their careers and the individualized advice given to mentees may help to decrease anxiety in a high-stress transition.

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