



Outcomes of a Five-Year Formal Ophthalmology Residency Mentorship Program

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Abstract

Objective This article describes a formal ophthalmology residency mentorship program, identifies its strengths and weaknesses over 5 years of implementation, and proposes strategies to improve qualitative outcomes of the mentorship program.

Design Cross-sectional anonymous online survey.

Subjects All current and former mentees and mentors at the Casey Eye Institute (CEI) residency program from 2016 to 2021.

Methods All eligible participants were contacted via email to complete a survey to describe and analyze their experiences with the CEI's formal residency mentorship program.

Results Of the 65 surveyed participants, 82% preferred in-person meetings and met up from 2 to 3 times (44%) to 4 to 6 times (38.5%) annually at 15 minutes to 1 hour (48%) or 1 to 2 hours (42%) duration. Sixty-two percent of meetings were initiated by mentors, 8% by mentees, and 32% shared responsibilities equally. Participants also identified the three most important qualities for successful mentor-mentee relationship as personality (33.6%), communication styles (29.2%), and extracurricular interests/hobbies (16.8%). Mentees valued career advising, networking, and wellness support over academic and research mentorship. Subjective outcomes showed 25% of the mentee and 43% of the mentors agreed the mentorship program was a valuable experience. Comparably, 14% of the mentees and 38% of the mentors prioritized the relationship. There was a strong correlation between participants who prioritized the relationship and acknowledged it as a valuable experience ($p < 0.01$). Eighteen percent of the mentees and 43% of the mentors found the relationship effective and met their expectations. Twenty-one percent of the mentees and 38% of the mentors believed they had the tools and skills necessary to be effective in their respective roles.

Conclusion Our survey identified that weaknesses of the mentorship program include ineffective communications, inadequate preparation in their respective roles, and lack of priority focus on the relationship. We propose strategies to strengthen our program through creating workshops to clarify roles and responsibilities, emphasizing

Keywords

- mentorship
- ophthalmology
- residency training
- graduate medical education

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accountability with a contract statement, and implementing a new matching algorithm to customize participants' experience. Additional studies from other residencies with formal mentorship programs are warranted to identify, strategize, and foster high-quality mentorship.

Mentorship has been defined in numerous ways but simply put, it is the influence, guidance, or direction given by a mentor.¹ Trainees in medicine have typically been guided by individuals with more experience, often considered mentors, who are critical to navigating the path of professional training. Residency is a critical formative period that requires effective mentoring, as learners shift from the student role to provider role with increased responsibility, clinical and surgical requirements, and demands on their time. For many ophthalmologists-in-training, residency may be their last formal opportunity to be in a large network with both junior and senior faculty available to serve as their advisors and advocates.

Previous literature has identified numerous benefits of effective mentorship for residents, including improving wellness, help with navigating career paths, reducing residency-related stress, and promoting involvement in political advocacy.²⁻⁴ Beyond residency, a positive mentorship experience may impact an individual's career long term. In fact, greater career satisfaction and job promotions have been reported by individuals who have had mentors in their training or career.^{5,6} Mentorship is not only considered to be important for the professional and personal development of mentees, including self-perception of career preparation, mentors also find the experience fulfilling and associated with enhanced career satisfaction.⁷ However, a fruitful mentor-mentee relationship requires intrinsic, sustained commitment from both parties.

Due to the many potential benefits of mentorship, medical education experts recommend trainees have access to a formal mentorship program as a means to strengthen the overall experience of residency training.⁸⁻¹³ As such, we believe mentoring should be a fundamental and critical component of ophthalmology residency programs. However, creating, implementing, and ensuring long-term success of a mentorship program is complex. The commitment of significant time and effort can pose a challenge to faculty and residents who are already busy with numerous clinical and academic duties. Additionally, mentorship programs' cost-effectiveness and benefits may not be easily quantifiable, leading to a lack of funding for these programs. Based upon our review, there is a scarcity of literature detailing mentorship experiences in ophthalmology residency.¹⁴ In fact, few studies examine resident mentorship within ophthalmology.⁴ More studies in this area could serve as a guide for programs interested in offering formal, effective mentorship to their residents. Herein, we describe the creation and evaluation of a formal ophthalmology residency mentorship program at the Oregon Health & Science University (OHSU) Casey Eye Institute (CEI). We report a survey-based study

aimed to assess and quantify the effectiveness of the program in its first 5 years and offer recommendations from this analysis.

Objective

To describe a formal ophthalmology residency mentorship program and identify its strengths and weaknesses over 5 years of implementation and to propose potential strategies to improve qualitative outcomes of the mentorship program.

Methods

Five years into the implementation of our formal residency mentorship program at CEI, we sought to evaluate the program's success. To accomplish this, we conducted a voluntary, anonymous, Web-based, cross-sectional survey with all current and former mentees and mentors at the CEI residency program from March to April 2021 to assess participants' experiences with the residency's mentorship program. A total of 65 eligible mentees and mentors were available and contacted. Survey questions were drafted and finalized by S.G. and A.F. Survey completion was anonymized to maximize response rate and truthfulness. We surveyed a series of questions with binary and multiple choice answers, a six-point ranking scale (in order of decreasing importance), a 5-point Likert scale (in order of descending agreeableness), and free responses. Multiple-choice answers were calculated in percentages. Six-point ranking scale answers were calculated based on the median score to identify the likelihood of importance.

Likert scale responses were dichotomized into categories of affirmative or nonaffirmative responses (strongly agree/agree vs. neutral/disagree/strongly disagree), respectively, as shown in ►Table 1, to identify the degree of agreement with a list of statements. A series of descriptive statements in ►Table 1 were calculated with Spearman's rho formula using the IBM SPSS software for Macintosh (version 27.0, IBM Corp, Armonk, NY) to find the nonparametric correlation values, and *p*-values <0.05 were adopted as statistically significant, as shown in ►Table 2.

The study was approved by the OHSU Institution Review Board and informed consent was obtained as part of survey completion.

Results

Program Description and Survey Implementation

The CEI ophthalmology residency program launched its first formal mentorship program for residents in 2016. The

Table 1 Responses to mentorship statements on 5-point Likert scale

Selected statements	Number (%) with affirmative response ^a	
	Mentee (n = 28)	Mentor (n = 21)
A. The mentorship program was a valuable part of my experience at Casey Eye Institute	7 (25)	9 (42.9)
B. My mentorship relationship was effective and met my expectations	5 (17.9)	9 (42.9)
C. I have the tools and skills necessary to be an effective mentor/mentee	6 (21.4)	8 (38.1)
D. It was easy to find time to connect with my mentor/mentee	6 (21.4)	9 (42.9)
E. I have made my mentorship a priority	4 (14.3)	8 (38.1)
F. Mentor clearly set expectations for frequency/types of meetings	9 (32.1)	3 (14.3)
G. Mentor clearly set expectations for the scope of mentorship	10 (35.7)	2 (9.5)
H. Helped with adjustment to the stress of ophthalmology residency	9 (32.1)	8 (38.1)
I. I see my mentor as someone I can trust with confidential matters	9 (32.1)	N/A
J. For mentees: I see my mentor as a role model For mentors: I believe my mentee views me as a role model	11 (39.3)	6 (28.6)
K. Provided wellness support professionally and personally	9 (32.1)	9 (42.9)
L. Helped set career goals	8 (28.6)	8 (38.1)

^a5-point Likert scale responses were dichotomized into categories of affirmative or nonaffirmative responses (strongly agree/agree versus neutral/disagree/strongly disagree) with affirmative responses recorded and calculated in percentage.

Table 2 Nonparametric correlation coefficient (N = 49)

Spearman's rho		Equipped with tools and skills to be an effective mentor/mentee	Prioritized the mentorship program	Helped with adjustment to ophthalmology residency
	Mentorship program was a valuable experience at Casey Eye Institute	0.724 ^a	0.808 ^a	0.794 ^a

^aCorrelation is statistically significant at the p-value < 0.01 level (two-tailed).

mentorship program's goals were shared with resident mentees and faculty mentors and stated "to strengthen faculty-resident relations, promote the well-being of residents, encourage career planning conversations, and enable residents to excel by identifying and managing areas for improvement." Faculty mentors were identified by a departmental "all call" for volunteers interested in being a mentor. All current and incoming residents completed a required intake questionnaire, and interested, voluntary faculty members also completed an analogous intake questionnaire along with submission of a recent curriculum vitae. Pairs were matched by the mentorship program directors (A. F. and J.C.), based on similar hobbies, interests, career objectives, and goals for the mentoring relationship. Mentor and mentee introductions were made by the mentorship director by email, in which mentor and mentee interests and goals were communicated, particularly those each had in common. Pairs were encouraged to connect as soon as possible via email, telephone, or in person to launch the mentorship and begin goal mapping. Specifically, mentors received written and verbal instruction detailing requirements of the program, including mentor arranging a minimum of one visit (a meal together, outdoor recreation, etc.) with their

mentee each quarter of the academic year, providing support for mentee facing stressful experiences, remaining informed of mentee's progress by having access to mentee's MedHub file, and guiding career choices while also advocating for mentee's fellowship and job applications. The focus of mentor-mentee visits was wellness, appropriate progress in residency, career planning, and other topics based on the mentor and mentee's needs. Mentor-mentee relationships were expected to last the entirety of the resident's tenure, unless circumstances arose in which the relationship was no longer mutually beneficial. The mentorship directors (A.F. and J.C.) also periodically checked-in with the group at large by email and with individual pairs to encourage connection and to elicit informal feedback throughout the academic year. Each new academic year, incoming residents were paired with faculty mentors using the same process, and existing mentor-mentee pairs were sent a refresher email. Following 5 years of implementation, the program's success was evaluated by distribution of a survey described earlier.

Demographics

Among the 65 eligible survey participants, 34 were mentees and 31 were mentors. We received 30 (88%) mentee

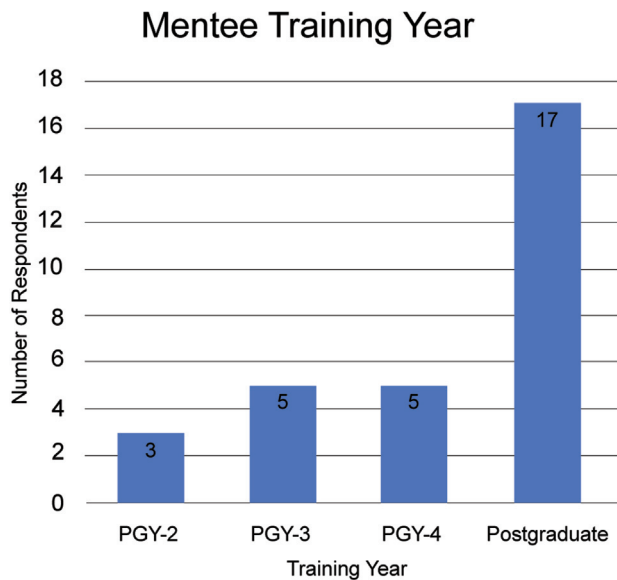


Fig. 1 Graphic breakdown of mentees' profile in training year. A total of 30 residents completed the survey with 17 former residents and 13 current residents.

responses with 28 (93%) completion of the entire survey and 22 (71%) mentor responses with 21 (95%) completion. Among resident mentees, 17 were former residents and 13 were current residents (►Fig. 1). Among the 22 faculty mentors, 13 (59%) served as first-time mentors and 9 (41%) served two or more times since the establishment of the formal mentorship program. Overall, 32 (62%) participants identified as male, 17 (33%) as female, and 3 (5%) who preferred not to answer (►Table 3). Seventeen mentor-mentee pairs (65%) identified with each other (►Table 3) as the same gender, although 42 (81%) reported no preference in their mentor/mentee gender pairing.

Communication Characteristics

We evaluated the preference, frequency, duration, and initiation of communication among mentors and mentees

in ►Fig. 2. Eighty-two percent of mentors and mentees preferred in-person meetings. The majority of pairs met in person either 2 to 3 times per year (44%) or 4 to 6 times per year (38.5%). No participating pairs met more than once a month, and 17% responded with meeting once or less per year. Additionally, the frequency of electronic-based communication via phone calls, emails, and Web-based platforms were categorized as more than monthly, 4 to 6 times per year, 2 to 3 times per year, and once or less per year. Half of the participants communicated 4 to 6 times per year, a quarter communicated more than once a month, and approximately 10% communicated 2 to 3 times per year or once a year. Approximately half of the responses rated their meeting were either 15 minutes to an hour (48%) or 1 to 2 hours (42%). Meetings were rarely less than 15 minutes (8%) or more than 2 hours (2%). More than 50% of the times mentors initiated meetings with their mentees, while 30% of the time mentors and mentees contributed equally, and finally, less than 10% of the mentees initiated a meeting with their mentor.

Defining Important Mentor Characteristics

Participants also selected the three most important qualities that make a successful mentor-mentee relationship. Among the qualities listed in ►Table 4, item A, the top three were personality (33.6%), communication styles (29.2%), and extracurricular interests or hobbies (16.8%) compared with the research interest (5.1%), same chosen subspecialty (5.1%), religion (2.9%), commonality in education or geographic background (0.7%), gender (0.7%), and ethnicity or race (0.7%).

Identification of Mentees' Goals

In a six-point ranking scale (from 1 to 6) order of decreasing importance shown in ►Table 4, item B, residents ranked career advising, networking, and wellness support as highest importance (median score: 2) in the formal mentorship pairing while academic (median score: 4) and research mentorship (median score: 5) were ranked significantly less important.

Subjective Outcomes of the Mentorship Experience

We utilized a 5-point Likert scale to elicit the degree of agreement on a series of statements to subjectively qualify the mentorship influence in ►Table 1. Agreement was defined as answering either "strongly agree" or "agree" to each individual question. Only 25% of the mentee and 43% of the mentors agreed the mentorship program was a valuable experience. Comparably, 14% of the mentees and 38% of the mentors made the relationship a priority. Eighteen percent of the mentees and 43% of the mentors found the relationship was effective and met their expectations. Only 21% of the mentees and 38% of the mentors believed they had the tools and skills necessary to be effective in their respective roles. Further, only 21% of the mentees and 43% of the mentors felt could easily find time to connect with their mentor/mentee. Thirty-two percent of the residents and 14% of the mentors felt they had clear

Table 3 Demographics and characterization of both cohorts

Participants	Number (%)
Eligible	65
Responded	55 (85)
Mentees	31
Mentors	24
Gender	
Male	32 (61.5)
Females	17 (32.7)
Prefer not to say	3 (5.8)
Paired with same gender	
Yes	34 (65.4)
No	16 (30.8)
Prefer not to say/don't know	2 (3.85)

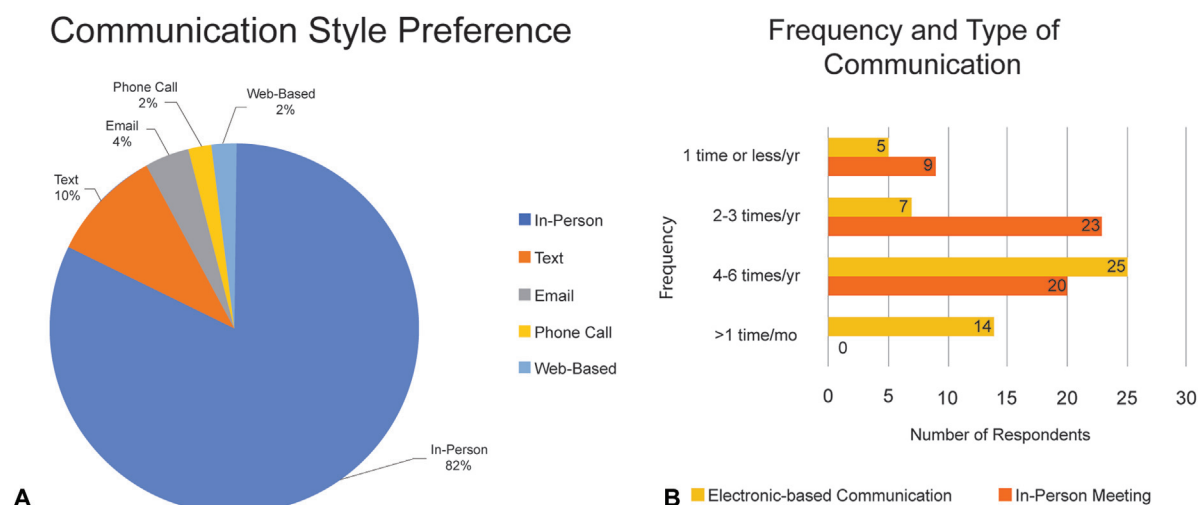


Fig. 2 Summative graphical representations of both cohorts' communication preference (A), and frequency (B). (A) The communication style preferences are 82% in-person, 10% text messages, 4% emails, and 2% for phone calls and Web-based interface. (B) The frequency of in-person meeting for 2–3 times per year is 44%, 4–6 times per year is 38.5%. No participating pairs met more than once a month, and 17% responded with meeting once or less per year. In comparison to electronic-based communications, 49% communicated 4–6 times annually, 27% communicated more than once a month, and 14% communicated 2–3 times per year, and 10% communicated once a year.

Table 4 Selected questions and responses

	Number (% of total)
A. Three most important qualities that makes a successful mentor-mentee relationship (Select 3)	
Personality	46 (33.6)
Communication styles	40 (29.2)
Extracurricular interests/hobbies	23 (16.8)
Research interest	7 (5.1)
Same chosen subspecialty	7 (5.1)
Other	7 (5.1)
Religion/faith	4 (2.9)
Commonality in educational background	1 (0.7)
Commonality in geographic area	1 (0.7)
Gender	1 (0.7)
Ethnicity/race	0
B. Residents' goals from the formal mentorship pairing (Ranking Scale; 1 = most important, 6 = least important)	
Median	
Career advising/Networking	2
Wellness support	2
Emotional support	3
Academic mentorship	4
Research mentorship	5
C. Suggested methods to improve the mentorship program (Ranking Scale; 1 = most important, 6 = least important)	
Median	
Advice from prior mentors/mentees	2
Offer workshops on mentor/mentee roles	3
Have mentorship program director send periodic check-in emails	3
Provide reading material on mentor/mentee roles	4
Utilize periodic survey to assess progress	4

expectations for both the frequency and types of meetings, while 35 and 10% of the mentees and mentors, respectively, had set expectations for the scope of their relationship. Our results also highlighted a difference in the degree of agreement between mentees and mentors regarding reducing residency stress, wellness, trust, and career guidance. When inquiring whether mentees received or mentors provided support to reduce residency-related stress, mentors had a higher level of affirmative response at 38% compared with mentees' 32%. About 33% of resident mentees felt they received adequate support professionally and personally, while 43% of faculty mentors felt they actually provided this sort of support and wellness resources to their mentees. Similarly, 38% of mentors believe they helped mentees set career goals while only 29% of mentees attributed their mentor were helpful with setting career goals. Lastly, only 32% of the mentees reported trusting their mentors with confidential matters.

Methods to Improve Overall Experience

We also queried several methods to potentially improve the mentorship program in ►Table 4, item C. Both resident mentees and faculty mentors favored receiving advice from prior mentors/mentees (median score: 2), offering training workshops on mentorship (median score: 3), and having the mentorship program director periodically email as check-ins (median score: 3). Participants felt it was less important to provide reading material regarding mentorship (median score: 4) or to utilize periodic surveys to assess relationship progress (median score: 4).

Discussion

Mentorship is essential in medical training and has been shown to be beneficial to mentees and mentors. While mentees receive wellness support, guidance on career paths, and alleviation of residency-related stress,²⁻⁴ mentors experience a sense of fulfillment and enhanced career satisfaction.⁷ However, mentorship program effectiveness is difficult to appraise, resulting in a sparsity of literature with objective measurements, especially in ophthalmology. Our study sought to bridge the current literature gap on formal residency mentoring through unique demonstration of both cohorts' perspectives and offer recommendations to assist formation and implementation of rewarding mentorship programs in ophthalmology residency training. Fortunately, we received a high response rate of survey completion from both the mentee (88%) and mentor (93%) cohorts. Respondents from the mentee's cohort were well-represented by an approximately proportionate number of current (43%) and former (57%) residents. All mentors are current faculty members at CEI, so our results should help equip them with better mentorship tools for the future.

Communication

One of the most significant factors in cultivating any relationship, especially mentorship, is ongoing communication.

Through effective communication, mentorship connections are fostered, activities are regularly planned, and such meetings can favorably impact both members of the relationship. Our research identified over 80% of the respondents preferred to conduct meetings in-person in comparison to text messages, emails, phone calls, and Web-based meetings. Certainly, in-person meetings provide a component of authenticity and connection that is not replicable by any electronic or virtual platform. Despite the strong preference, in-person meetings remained sparse with over 80% occurring between 2 and 6 times annually, while duration ranged from only 15 minutes to 2 hours (with meetings over 2 hours being exceedingly rare). In sum, the total face-to-face time ranged from 30 minutes to 6 hours yearly. Despite the coronavirus disease 2019 pandemic impacting in-person activities which may have affected mentoring relationships, the majority of our mentee respondents were either former residents or current senior residents (only three were first-year ophthalmology residents at the time of survey completion) with multiple years of mentorship experience. Therefore, a brief hiatus likely did not impact our overall results. Although we cannot objectively quantify the intimacy and depth of connection in each mentorship pair, we suspect the paucity of in-person meetings in combination with brief duration may have been associated with the suboptimal outcomes reflected by the overall low percentage of affirmative responses among all statements from both cohorts shown in ►Table 1. In addition, mentors were five times more likely to initiate meetings compared with mentees. About one-third of pairs shared this initiative equally. While mentoring is voluntary, mentees may be encouraged to be more proactive in meeting planning to foster strong ongoing rapport with their mentor. Ideally, both mentor and mentee should take ownership of the relationship. Zerzan et al emphasized the importance of mentees being the primary communicator in scheduling meetings and setting the agenda for discussion to maximize the mentorship experience.¹⁵ We also urge residencies with formal mentorship programs to empower residents to be the initiator and optimize their opportunities.

Overall Outcome

Our study evaluated the OHSU CEI ophthalmology residency formal mentorship program's effectiveness through qualitative questions answered on both a ranking scale and the 5-point Likert scale. Specifically, we concentrated on the resident mentee-perceived important goals, wellness support, and career guidance as shown in ►Table 4, item B. The residents ranked career advising, networking, and wellness support as the most important mentorship goals, followed by emotional support. Consequently, there was a lower emphasis on academic and research mentorship. This is consistent with the Taylor et al study that identified emotional and psychologic encouragement as the most valued aspects of mentorship.¹⁶ Unfortunately, when inquiring about mentors assisting with residency stress (►Table 1, item H), professional and personal wellness support (►Table 1, item K), and setting career goals (►Table 1,

item L), the low affirmative responses of 32, 32, and 29%, respectively, strongly implied mentees' needs were not met. Interestingly, the mentors responded with a slightly higher degree of agreement on the same items at 38, 43, and 38%, respectively. Nonetheless, majority of respondents from both cohorts still responded nonaffirmatively to both statements. Similarly, the global response was disappointing, as our results revealed both cohorts with less than 50% agreement on all statements listed in ►Table 1. We postulate a suboptimal outcome was related to a combination of infrequent in-person meetings, participants not prioritizing the mentorship, and inexperience of participants in serving as mentor or mentee. First, episodic in-person meetings with short time intervals could have constrained both parties from deepening their relationships. Fifty-nine percent of the faculty volunteered as a first-time mentor while 41% served two or more times, but only an overall 38% felt they had the essential tools and skills to perform the mentor role. Correspondingly, only 35% of the mentees and 10% of the mentors set clear expectations in their mentorship. Straus et al reported that failed mentoring relationships shared characteristics of poorly defined expectations and mentors without experience.¹⁷ We recommend that the mentorship program not assume that mentees and mentors can intrinsically perform their roles without arranging supplemental resource support, such as training workshops and social gatherings between mentorship pairs that encourage connection and setting of expectations.

Given the above, it was not surprising to find that the experience was suboptimal for many participants. Fortunately, our study did reveal positive findings about the mentorship program. Within the affirmative responses, participants who could effectively serve their mentor/mentee roles, prioritized the mentorship, and received support during stressful times in residency strongly felt that the program was a valuable experience ($r = 0.724, 0.808, \text{ and } 0.794$, respectively, $p\text{-value} < 0.01$). A small subgroup of pairings felt that the experience was worthwhile, suggesting the intended outcome is attainable with focused improvements.

Future Directions

While initially discouraged by the weaknesses identified in our program, we developed the suggested plans (summarized in ►Fig. 3) based on the analysis of our data and feedback from our current and past program participants. We believe the proposed future directions will meet the needs of our participants and improve the overall satisfaction of our mentorship program. Among the listed suggestions on ►Table 4, item C, mentees and mentors ranked receiving advice from prior mentors and mentees as the most helpful suggestion followed by hosting workshops to more meaningfully engage in their perspective roles. To address some of the shortcomings identified in this study, we began collaborating with CEI's faculty development program to empower participants by incorporating interactive learning workshops for all as well as implementing more regular check-ins. We will focus on how to mutually optimize the

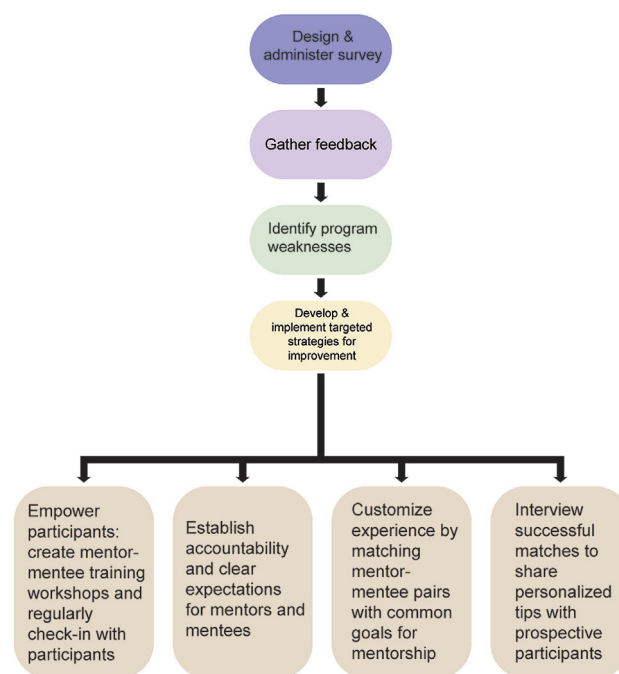


Fig. 3 Schematic overview of a stepwise approach to assess formal mentorship program's effectiveness and four key suggestions for improvement based on identified weaknesses.

mentorship program for mentees and mentors by providing educational modules, and helping our mentors and mentees develop personalized goals.

We also asked residents to select the three most important qualities that make a successful mentor-mentee relationship. Among the qualities listed in ►Table 4, item A, the top three were personality (33.6%), communication styles (29.2%), and extracurricular interests or hobbies (16.8%). These traits were similar to the themes highlighted by Straus et al's findings.¹⁷ Consequently, research interest, same chosen subspecialty, religion, commonality in education or geographic background, gender, and ethnicity/race were considerably less valued. Given such a response, we began creating a customized experience toward mentors' and mentee's goals with implementation of additional questions on the new intake form to elicit these qualities to better match mentor-mentee pairs based on common goals for mentorship. Goals listed included wellness, surgical and clinical feedback/guidance, career guidance, and counsel during stressful times. Each mentor and mentee will rank their goals in order of importance. The mentorship director (A.F.) will be responsible for pairing mentors and mentees based upon the highest ranked priority.

As demonstrated in ►Table 2, there was a strong correlation between individuals that prioritized the mentorship and those who viewed the experience as valuable. We believe effective mentoring requires both parties to take ownership of the relationship. Therefore, we have implemented a statement of acknowledgment requesting participants to pledge their commitment to a 4-year relationship by focusing to maintain ongoing communications. Ideally this will increase accountability and set clear expectations for both parties.

Other strategies to be considered in the future include interviewing successful mentoring pairs to identify interpersonal factors that led to a rewarding experience or administering annual surveys to gather longitudinal data and reassess the effectiveness of our program.

Lastly, we also advise that the mentee employ a “manage up” approach, a corporate concept, when navigating the relationship with their mentor.¹⁴ This requires the mentee to take primary ownership of the mentorship by identifying knowledge and skill gaps, formulate specific goals, clearly communicate these with their mentor, plan and set mentoring meeting agendas, and be responsive and flexible. The mentee should establish the preferred mode and frequency of contact with their mentor and take an active, ongoing role in scheduling meetings and follow-up on goals, thereby making each party accountable and informed. In order for this to occur, the mentor must also be available, accessible, and sincerely dedicated to the progress of the mentee.¹⁴ By taking ownership of the mentorship experience, residents gain confidence and strengthen communication and executive skills, which may improve self-perception and reducing feelings of imposter syndrome.

Whether residency programs have established mentorship programs or are planning to launch a mentorship program, we believe our data and strategies offer guidance to the leadership team in implementing new methods to enhance their mentorship programs and the participants' overall experience. We also encourage programs with formal mentorship programs to evaluate their program effectiveness and share the successes, weaknesses, and strategies to collectively improve residency mentoring outcomes at large.

Limitations and Strengths

Our study has several limitations. First, this is a single-center study at an academic institution so mentees might be less inclined to formally seek academics or research mentoring since these resources are abundant. As a result, it might have skewed the mentee's ranking on desired mentoring goals. Second, it may limit the generalizability of our results particularly in nonacademic ophthalmology residency training programs or across other medical specialties. As a survey-based study, we are inherently prone to response biases in which participants with either satisfactory or unsatisfactory experiences might be more or less prone to respond. However, given the high response rate by both cohorts, we believe our results accurately reflect the mentorship program experience here at CEI. We recognize the residents also have numerous informal mentors and advisors throughout their training, though the length and scope of these relationships vary. The formal mentorship program provides a 4-year commitment with evolving goals that include improved wellness, career guidance, professional networking, scholarly opportunities, and clinical/surgical advising. Lastly, by nature of the mentorship program design, all CEI residents had assigned mentors. Therefore, we do not have a comparison group of residents who did not participate in the mentorship program. The strengths of this study include capturing the experiences of both mentor and mentee within the same mentoring program,

as compared with prior studies that tend to focus on one perspective rather than both. Finally, this is the first reporting of a formal mentorship program in an ophthalmology residency program with 5 years of data.

In summary, the CEI ophthalmology residency formal mentorship program was implemented 5 years ago with the intention to support ophthalmology residents personally and professionally in a demanding surgical subspecialty training setting. However, theorized objectives did not fully meet expectations, so a thorough evaluation of the program was conducted. Given the overall less than optimal experiences shared by both mentees and mentors, the leadership team developed concrete steps (detailed in ►Fig. 3) to improve our mentorship program. We believe our findings and recommendations will assist other programs as they navigate creation and successful implementation of formal residency mentorship programs.

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Conflict of Interest

No conflicting relationship exists for any author.

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