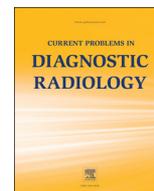




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Launchpad for Onboarding New Faculty Into Academic Life



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We developed a faculty professional development seminar series in order to facilitate the integration of our numerous new faculty into academics. The changing nature of the healthcare system, increasing clinical and administrative responsibility, and lack of access to senior mentors can hinder junior faculty productivity and possibly increase attrition. Given that no ready-made resources existed to address these issues we established a Professional Development Committee, developed a curriculum that covers relevant topics including promotion, mentorship, conflict management and feedback, and effective presentation of scientific data, and instituted changes iteratively based upon feedback. We used surveys from successive years of this seminar series to assess effectiveness, and our data demonstrate that our Professional Development Seminar Series was valued by its participants and that individual lectures improved from year to year. While it is too early to determine whether our efforts will lead to long-term changes in promotion success or faculty retention, our initial data are promising.

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Description of the Problem

Over the past 5 years, our academic radiology department has hired 51 faculty, 33 of whom are at the rank of Assistant Professor. Many are new to academic radiology and directly out of training, and we perceived a need to develop a seminar series to stimulate faculty professional development and facilitate their integration into a successful academic career. No such program previously existed at our institution despite evidence suggesting that faculty development programs are valued by their participants and lead to positive changes in both faculty attitude and behavior.¹

Junior faculty entering academic medicine at the Assistant Professor level often lack the knowledge and guidance critical to managing their own academic advancement.² The changing nature of the current healthcare system, increasing clinical and administrative responsibilities, and lack of access to senior mentors can hinder junior faculty productivity and career satisfaction.^{3–6} These factors may increase attrition from academia.⁷ The extent to which a department is able to nurture and develop junior faculty can significantly impact its future.⁸ Consequently, there is an increasing recognition across medical academia of the need to invest in its

junior faculty. Mentoring has been shown to impact a faculty member's research productivity, career satisfaction, and perceived institutional support.^{4,5,9} Although mechanisms for informal mentoring exist de facto in most departments, specialties focused on clinical practice and service often face a dearth of senior mentors to provide academic consultation.¹⁰ Structured mentoring can mitigate this to an extent by increasing availability of experienced faculty within and outside the department. In fact, structured mentoring can be a cost-effective and efficient way to improve skills needed for and retention within academic medicine.¹¹

Institutional Approach Employed to Address the Problem

Initial discussion began during the annual department retreat, at which time a professional development subcommittee was formed. There was widespread consensus that onboarding of new faculty was a pressing concern, and given that no ready-made resources existed we elected to create them de novo.

First we established a Professional Development Committee, led by the Associate Dean of Graduate Medical Education and comprising both junior and senior academic faculty members as well as a chief resident. In particular, our initial Professional Development Committee members included a full Professor (Associate Dean of Graduate Medical Education and Vice Chair of Professional Development, which was a new position created in conjunction with this committee's inception that underscores our department's commitment to this project); an Associate Professor (Vice Chair of Clinical Informatics); 5 Assistant Professors representative of various clinical subspecialties including that from our

Sentence Summary: In response to an influx of new faculty, our institution established a Professional Development Committee and created a Professional Development Seminar Series to ease the transition into academic life.

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affiliated Children's Hospital; a chief resident; and administrative staff to document meeting minutes. The composition of this committee was chosen such that junior faculty could directly provide input on the relevancy of potential lecture topics and that the committee's recommendations could be implemented in a timely manner. Thanks to the influence of 2 Vice Chairs including that directly relevant to Professional Development. The committee then developed a curriculum that covers relevant topics, including promotion, mentorship (including roles of both mentors and mentees), conflict management and feedback, and effective presentation of scientific data. Future directions of our seminar series include discussing burnout, integrating a resident and faculty wellness curriculum, providing resilience training, and focusing on work-life balance. Appendix A lists lecture titles, and PDFs of individual lecturers' presentations are available on request to the corresponding author.

Our approach to curriculum development was to first identify desired topics, then to identify individuals within or external to our institution that possessed domain-specific expertise. Our committee chair then contacted each proposed lecturer directly to explain the lecture series' intent and obtain a commitment to develop a relevant lecture.

The seminar series is presented over the first half of each academic year, repeating annually for new cohorts of junior faculty. Lectures are at 1-2-week intervals, generally the latter, and begin in September so that new faculty have some time to acclimate to their new environment. This seminar series has now been presented for 2 cycles, to disjoint groups of junior faculty, as defined by a hire date of 3 years or less from the present date and an academic rank of Assistant Professor. The first seminar series was also attended by the faculty members of the Professional Development Committee, junior and senior faculty alike. This was thought to be important for the development of institutional memory, where faculty of various ranks consolidate knowledge to be passed along to new hires who may not yet have attended the seminar series. Between the first and second cycles, we incorporated feedback from both the committee members and the junior faculty participants, and made changes to the curriculum in an iterative manner.

Specific changes informed by the feedback included substitution of certain lecturers with maintenance of the general topics, lengthening specific sessions for which the participants desired more time for discussion, and changing the venue from a large, general purpose classroom on the medical school campus to a more intimate venue more conducive to interactive discussion.

Institutional Review Board approval was obtained for data collection. Following each seminar, we collected survey data including quantitative Likert scale and qualitative elements pertaining to the lectures' learning objectives. An example survey is provided in Appendix B. These data were collated and stored in a secure local computer database. Subsequent analysis of the data was performed with SAS (SAS Institute, Inc, Cary, NC, version 9.4).

Description of the Outcomes of the Institutional Practice

There were 146 responses in total to quantitative survey questions on a 1-5 scale (higher numbers denoting more positive responses). Mean evaluation score for the first year's sessions was 4.66 ± 0.48 (range: 2.5-5.0). Mean evaluation score for the subsequent year's sessions was 4.97 ± 0.12 (range: 4.5-5.0). These data are depicted in the Figure. Individual sessions resulted in mean evaluation scores ranging from 4.44 ("Imaging is a target for healthcare cost containment: How can health sciences research help?") to 5.00 (multiple sessions).

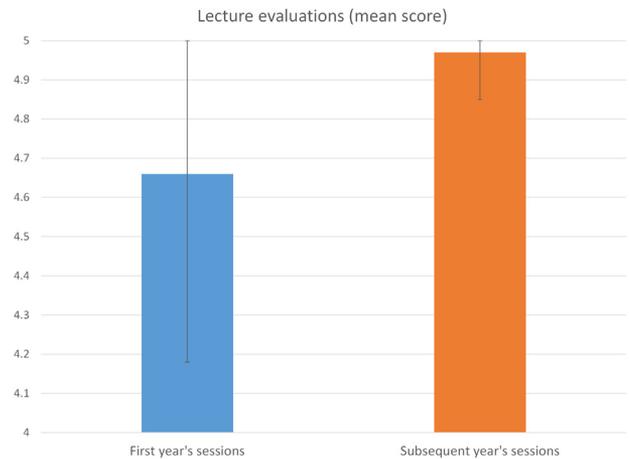


Fig. Lecture evaluations from successive years demonstrate a statistically significant increase in mean score. (Color version of figure is available online.)

Equality of variances was assessed with the Folded *F* test, with the $P < 0.0001$ indicative of unequal variances. The differences between the first and second year sessions were therefore assessed with the Satterthwaite *t*-test, with a resultant $P < 0.0001$ consistent with a significant difference.

These data demonstrate that our Professional Development Seminar Series was valued by its participants. Furthermore, longitudinal data show that the individual lectures improved in perceived quality from year to year. The importance of feedback in promoting improvement in professional development efforts has been previously reported, and we believe improvement in our lecture series' scores was related to targeted feedback relayed from the Professional Development Committee to individual lecturers.¹

Discussion of Future Directions

Academic radiology can be bewildering to a new hire, whether that hire is new to being a faculty radiologist or merely new to academics. In particular, a career in academic radiology entails balancing competing demands for time and attention, namely clinical work, education, and scholarship. These varied responsibilities and time commitments can be difficult to manage, and may be a contributing factor in a faculty member's decision to leave academic practice.^{12,13} The first 5 years of postgraduate practice are often the most important in a radiologist's decision to pursue a career in academics vs private practice.^{12,14} Strong mentorship and role-models have been shown to be an important factor in junior faculty retention in academic practice.¹⁵ In a recent survey, approximately 48% of radiologists reported burnout.¹⁶ Formal mentorship and faculty development have been associated with improved job satisfaction, increased commitment, reduced faculty turnover, and decreased stress and burnout.¹⁷ Furthermore, The American College of Physicians supports institutional programs to foster promotion of junior faculty with formal career counseling, a faculty development program, and a formal mentoring process.¹⁸

Previous studies have reported the success of faculty development workshops, which addressed skills in teaching, leadership, conflict resolution, curriculum building, and evaluation.¹⁹ After completion of the workshop, junior faculty reported increased confidence in skills related to education, research, and administration. In academic diagnostic radiology, a formal

mentoring program that addresses multidimensional aspects of an academic career (clinical skills, research, education, and work-life balance) was associated with improved faculty productivity and above-average grant funding.²⁰

Over the past 5 years, our academic radiology department has hired 51 faculty, 33 at the rank of Assistant Professor. We perceived a need to develop a seminar series to stimulate faculty professional development and facilitate their integration into academic life. We developed a professional development seminar series to provide junior faculty with skills to catalyze their integration into academic life, facilitate career development, and guide them through the promotion process in hopes of achieving a satisfying, productive career trajectory. While it is too early to determine whether our efforts will lead to long-term changes in promotion success or faculty retention, initial data from participants in this seminar series suggest that our efforts have effectively met our learning objectives.

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Appendix A. Titles of Professional Development Seminar Series

1. Building and Enjoying a Successful Academic Career: Getting Promoted and Career Development
2. Mentees: How to be a Good Mentee
3. Conflict Management Styles
4. Crucial Conversations
5. Effective Feedback
6. How to Give a Great Scientific Presentation
7. Radiology-Centric Small Group Teaching
8. Improving Patient Safety, Quality, and Efficiency in Radiology

Appendix B. Sample Survey

1. Presentation by [Instructor] was clear.
2. [Instructor] was knowledgeable about the subject.
3. Presentation by [Instructor] was relevant to my development.
4. Instructional method of [Instructor] was appropriate.

Responses to these questions followed a Likert scale, with 1 equating to strongly disagree and 5 to strongly agree.

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