

If You Build It, They Will Come: A Model for Sustainable Medical Education Scholarship

Jennifer Corbelli, MD, MS; Carla Spagnoletti, MD, MS; Doris Rubio, PhD; Kevin Kraemer, MD, MS; Robert Arnold, MD; Sonya Borrero, MD, MS; Raquel Buranosky, MD, MPH; Julie Childers, MD, MS; Michael Elnicki, MD; Shanta Zimmer, MD; and Melissa McNeil, MD, MPH

The authors are affiliated with the Medical Education Research Steering Committee, which promotes successful scholarship among clinician educators at all career stages at the University of Pittsburgh.

Clinician-educators (CE) have many reasons to be motivated to engage in research, particularly in the area of medical education. Medical education scholarship affords CEs the opportunity to develop skills and gain experiences that enhance the richness of an academic career through national collaborations and presentations, publications, and mentorship. These faculty members, as expert educators, are also uniquely poised to leverage research skills for the benefit of residents and fellows interested in medical education scholarship. Finally, medical education research can assess needs and shape education innovations, and CEs have an ideal vantage point to identify needs for novel curricular programs. Yet CEs face challenges to achieving success in scholarly pursuits. While their roles as leaders in education may readily lend themselves to scholarship, the funding sources, protected time, mentorship, and other institutional support necessary for success in research endeavors are often lacking. In an effort to overcome these barriers, we developed and implemented a Medical Education Research Steering Committee in the Division of General Internal Medicine (DGIM) at the University of Pittsburgh.

The committee is comprised of 11 faculty members and includes a professor of biostatistics and senior and mid-level CEs and clinical-investigators. All committee members have extensive track records in successful research and mentorship. Faculty who serve on the committee have included in their job descriptions time for the professional development of other faculty and

fellows. No additional time is provided for committee membership.

We developed a standardized application protocol consisting of an abstract and three-to-five page narrative (i.e. aims, background and significance, approach, timeline). The committee reviews project proposals from faculty and fellows in DGIM. Proposals that involve internal medicine residents as co-investigators with faculty primary investigators (PIs) are also encouraged. Faculty who submit proposals to the committee generally have limited amounts of protected time for research as part of their institutional support, the majority of which is used for medical student and/or resident education. A small percentage of this time may be devoted to scholarship.

Reviews are initially conducted by three independent committee members. The committee then meets to discuss each proposal. Projects deemed to have direct applicability to the mission of the division leadership, the potential to make a strong impact on local or national medical education, and strong potential for national dissemination and publication are prioritized. For proposals that require revisions, one of the reviewers becomes a designated mentor for that proposal. He/she then meets with the applicant to discuss the committee's recommendations. For those requiring major revisions, investigators are asked to present the revised proposal at a future committee meeting before a decision is made about support. Those requiring minor revisions are resubmitted to the designated mentor, and the decision

about whether to support the revised proposal is made at the committee member's discretion. Each committee member reviews approximately two projects per six-month period, with a combined total of four to six hours of faculty time—divided by three faculty members—spent per project. Awardees typically have one year from the date of the award to complete the project. If additional time is needed, the awardee must reapply for continued support. In addition, faculty and fellows are encouraged to submit proposals for review and feedback before they apply for any external funding.

DGIM includes the Center for Research on Health Care Data, which is comprised of faculty in biostatistics and research methodology. The funding provided to awardees supports the costs for the expertise housed within the data center. The yearly budget for the division for all projects supported through the Medical Education Research Steering Committee is \$50,000. This support comes from funds accrued by DGIM from a combination of indirect funding from research support and reimbursement for medical student teaching from the University of Pittsburgh School of Medicine. Faculty can receive up to \$5,000 of support per project, and fellows are eligible to receive \$2,500 per year during their fellowship. Fellows are required to perform much of their own data management under the guidance of a statistician.

Outcomes and Next Steps

In each of the first three years after committee formation, seven, eight, continued on page 2

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and six proposals were awarded, respectively. Project titles are listed in Table 1. Three proposals were rejected due to the low-impact potential of the work. One is currently in the process of being revised, and two are currently under review. The total amount awarded since creation of the committee is \$76,500. The average amount awarded per project to date is \$3,600.

Of the 21 funded projects, a total of six CE faculty members were PIs, and six were co-investigators. Among PIs, one was a professor, one was an associate professor, and four were assistant professors at the time proposals were awarded. The ranks of faculty co-investigators ranged from assistant to full professor. Eight fellows were PIs, and two fellows were co-investigators on faculty projects.

Six projects included internal medicine residents as co-investigators.

Of all 21 proposals awarded financial support, nine manuscripts have either been published or accepted for publication. Six manuscripts are either currently under review or are in the process of being revised and resubmitted. Seven manuscripts are in develop-

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Table 1. Projects Approved by the Medical Education Research Steering Committee

Project Title
Understanding the Role of Interns as Teachers: A Cross-sectional Survey of Behaviors, Attitudes, and Predictors of Intern Teaching
Evaluation of VA Women's Health Fellowships: A Survey of Developing Leaders in Academic Women's Health
Health Policy Curriculum for Internal Medicine Housestaff: Building a Curriculum from the Grassroots
Teaching Medical Educators to Teach Communication Skills: 10 Years of Experience
Using Facial Expressions to Improve Doctor-Patient Communication
Implementation and Evaluation of a Curriculum to Improve the Post-hospital Follow-up Visit Curriculum in the Ambulatory Setting
Primary Care Providers' Approach to Breast and Cervical Cancer Screening in Primary Care
Implementation and Evaluation of a Breast Health Curriculum for Internal Medicine Residents
Establishing Consensus with the Delphi Technique: Priorities for Pediatric Palliative Care <i>Fast Facts and Concepts</i> Content for the Education of Pediatric Interns
A Virtual Patient Experience to Develop Clinical Reasoning in Junior-level Japanese Resident Physicians
Head CT Scan Use in Frequently Admitted Medical Patients
Palliative Care Curriculum for Pediatric Residents
Developing and Implementing an Intern Teaching Curriculum
Assessment of Burnout Among Internal Medicine Housestaff
Design of a High-value Cost-conscious Care Curriculum
Redesigning an Ambulatory Curriculum for Internal Medicine Housestaff
A Brief Mindfulness-based Self-care Intervention for an Inter-professional Group of Palliative Care Providers
Collaboration Between the University of Pittsburgh Division of General Internal Medicine and the <i>Annals of Internal Medicine</i> to Create Online Virtual Patients for ABIM Maintenance of Certification
A Local and National Assessment of Resident Autonomy
Improving Residency Conferences: Enhancing Engagement by Integrating Learner Preferences and Principles of Adult Learning
Addressing Health Literacy through Clear Health Communication: A Training Program for Internal Medicine Residents

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ment. Primary authors have given 18 national presentations (i.e. oral abstracts and posters) related to these funded projects. Fifteen project-related workshops were presented at national meetings.

We are planning several key next steps to further evaluate the impact of the committee. We have not been able to quantify its impact through a comparison of current CE scholarly activity to that which occurred prior to committee formation. Given that projects develop over years from inception to dissemination, we suspect that we will be able to make this comparison after another one to two years. At that point, we will compare the number of publications and national presentations among awardees to the number achieved by CEs over the same time period in the years preceding committee formation. We will also compare the number of

people who successfully completed and disseminated projects, as an explicit committee goal is to afford faculty members avenues for scholarship who have not previously undertaken these pursuits. Next steps also include plans to continue to expand the number of mentored projects and to expand mentoring expertise to increase the strength and number of qualitative projects. Finally, we will compare, using the same measure, the academic productivity of fellows who graduated before and after committee formation. We hypothesize that the support from the committee increases the likelihood that fellows will be successful as they develop their careers as CEs. This may enhance their competitiveness in their search for faculty positions and help set them up for success as junior faculty. In three to five years, we will examine whether fellows who grad-

uated after committee formation have been promoted earlier than fellows who graduated prior.

The Medical Education Research Steering Committee is an innovative model that can be applied in varying forms at many academic institutions. The fact that other institutions may not have a data center and/or the funds available to provide financial support for projects may limit generalizability. However, even if support for statistical analysis does not exist, the mentorship provided by the committee offers the expertise and structure needed to develop, complete, and disseminate medical education projects successfully. Our results demonstrate that limited amounts of faculty time and funding support, when effectively leveraged, can engender success among CE faculty and trainees as measured by publications and national presentations.

SGIM