

Innovations in Family Medicine Education

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Editor's Note: Send submissions to jfreeman@kumc.edu. Articles should be between 500–1,000 words and clearly and concisely present the goal of the program, the design of the intervention and evaluation plan, the description of the program as implemented, results of evaluation, and conclusion. Each submission should be accompanied by a 100-word abstract. Please limit tables or figures to one each. You can also contact me at Department of Family Medicine, KUMC, Room 1130A Delp, Mail Code 4010, 3901 Rainbow Boulevard, Kansas City, KS 66160. 913-588-1944. Fax: 913-588-2496.

A Point System for Resident Scholarly Activity

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Encouraging resident scholarly activity is challenging. One Army family medicine program was struggling to get residents to fulfill their requirements. Projects were not being completed, and publication or presentation of results was rare. A novel “scholarly activity point” system was introduced that expanded the types of scholarly activity residents could participate in while still encouraging clinical research. Since implementation, the number of residents successfully publishing and presenting scholarly projects has risen sharply. The point system has resulted in an increase in resident enthusiasm for scholarship, a change in the academic culture, and a dramatic rise in scholarly output.

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There has been an increasing call for family medicine residents to participate in scholarly activity, and the Family Medicine Residency Review Committee (RRC) has recently strengthened the language in this area.¹ The literature shows that lack of time, funding, and mentoring are the most often mentioned barriers to resident scholarly production,² while program features associated with increased resident scholarly

activity include residency director support, local research mentoring, forums at which to present, and protected time.^{3,4}

Our 18-resident US Army family medicine program previously had a requirement that each resident complete an original research project and present the results, designed to guarantee resident familiarity and experience with the principles of medical scholarship. Many of the features associated with increased resident scholarly productivity were in place: the program director is an ardent proponent of resident scholarship, and several faculty participate in research and publish often. Resident projects are required to

have at least one faculty mentor, published papers are displayed prominently, and the department has one night a year designed for presenting scholarly activities. Additionally, Army Achievement Awards are given for being an author on a published paper or for producing an outstanding poster or podium presentation.

Despite these features, informal polling found that many residents felt frustrated and resentful at being forced to participate in research. Many projects were not completed; others were of poor quality. Publication or presentation of completed projects at external conferences was infrequent.

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Intervention

To address these issues, a new system for resident research was announced in July 2006 and fully implemented in July 2007. In this new system, a resident is required to accumulate 10 “scholarly activity points.” This system recognized a wider variety of activities as scholarship; any of the four types of scholarship described by Boyer—discovery, integration, application and teaching—can potentially earn points.⁵ However, the point system was weighted in such a way as to encourage residents to participate in the scholarship of discovery. Residents were now free to collaborate with each other, as well as faculty, on projects.

Table 1 shows the basic outline of the point system. Because projects that represent the scholarship of discovery are awarded up to 7 points, and submission of results for publication or presentation would be awarded up to 5 and 3 points, the ideal way to earn 10 points is still to complete an original research project and share the results with an audience of peers. Because other scholarly projects earn fewer points, they require completion of multiple projects. The exact number of points earned for a project is de-

termined by the research director, program director, and the faculty mentor. For projects involving collaboration, full points can be given to each resident, or points can be assigned based on each resident’s level of contribution.

Evaluation

During the preceding 4 years under the previous requirement, an average of 2.5 resident projects per year were published or presented. This included a total of four papers in the peer-reviewed medical literature; five poster or podium presentations at regional, national, or international medical conferences; and one book section. A mean of 2.0 residents per year had at least one project published or presented.

In the first year of the point system, 17 projects with resident authors were accepted for publication or presentation. Two posters and six podium presentations were accepted to scientific conferences. Four publications were accepted to peer-reviewed journals, and five book sections or chapters had residents as authors. Seven different residents accounted for these 17 projects.

The system is now in its second year, and the trend has continued.

Halfway through the year, residents have two publications accepted to the peer-reviewed literature plus six book sections. Five posters and one podium presentation have been accepted to national conferences. Two posters have won first place awards at American Academy of Family Physicians-sponsored conferences. Thirteen different residents have contributed to these successes. Six research projects with residents as principal or associate investigators are at various stages of completion.

Discussion

Implementation of a point system represents a novel method of encouraging resident scholarly activity. A literature search utilizing various combinations of the terms “resident,” “scholarship,” “research,” “point system,” and “scholarly activity” did not produce any references describing such an approach.

There are several reasons why a point system might encourage resident productivity. First, the system allows residents to pursue their own interests rather than being told what type of scholarly activity to participate in. Whereas residents were not previously allowed to collaborate with each other, they are now en-

Table 1

Maximum Number of Points Given for Particular Types of Scholarly Activity

<i>Type of Scholarly Activity</i>	<i>Maximum # of Points Awarded</i>
Completion of an IRB-approved research project or a well-conducted quality improvement project.	7
Acceptance (to peer review) of a manuscript describing a case report, clinical review, research project to a medical journal.	5
Publication of a book chapter or section.	5
Submission and acceptance of a podium or poster presentation at a regional, national, or international medical conference.	3
Publication of a letter to the editor in a peer-reviewed medical journal.	2
Publications for the lay public, such as newspaper articles, on medical topics.	2
Submission without acceptance of a presentation at a regional, national, or international medical conference.	1
Presentation of a podium or poster presentation at the department or hospital Resident Research Day.	1
Other activities deemed acceptable by the research director and residency program director.	As assigned

The exact number of points given for a project is dependent upon factors including the number of residents collaborating on the project, the amount of effort put forth per resident, and the complexity of the project.

couraged to. The broadened definition of scholarship made projects such as case reports appealing to residents. A level of competition between residents has developed, and several have collected more than the required 10 points. Both competition and collaboration have made the production of scholarship more fun. All of this has transformed the atmosphere within the residency into a “culture of inquiry.”⁶

While change alone might have sparked renewed interest in scholarship among the residents, this is less likely given that the resident scholarly production has not slowed down. The possibility remains that other unidentified factors could have contributed to the increase.

While the temporal association between the implementation and an increase in resident scholarly production is compelling, it does not prove causation. However, no other changes were made during this time frame. The program director and key mentors had all been

at the program for several years prior to the change. No significant increase in technical support or funding occurred. There was no identifiable increase in the prior scholarly experience or training of residents.

Conclusions

Implementation of a point system resulted in an increase in the number of residents actively participating in scholarly projects. Resident scholarly productivity, as measured by publications and acceptances of posters and podium presentations at scientific conferences, dramatically increased.

Acknowledgment: The opinions or assertions contained herein are the private views of the author and are not to be construed as official or as reflecting the views of the Department of Defense.

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