

Offering a combined resident research training program and pharmacy student elective may help improve resident publication rates

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Dear Editor:

These authors read the recent manuscript published in the journal about declining publication rates in PGY2 psychiatric pharmacy residents.¹ As stated in the manuscript, there are many barriers to research including institutional review board (IRB) approval, data access, resident knowledge gap, lack of motivation or persistence, and low confidence in statistical abilities. There are numerous learning resources available,²⁻⁴ but without dedicated programming and mentorship, residents may be unlikely to seek out this information themselves. Offering a dedicated research program is one way to boost resident publication rates. Through collaboration with the University at Buffalo School of Pharmacy and Pharmaceutical Sciences, Kaleida Health offered its pharmacy residents a research training program that also served as an elective course for third-year (P3) pharmacy students.

The program/elective was developed to give residents the resources needed to help them stay on schedule for the successful completion of their research-related tasks while at the same time giving P3 doctoral pharmacy students the opportunity to gain research experience.

The student-resident research elective course provided one credit hour per semester in both the fall and spring semesters for P3 students and was designed using a layered learning model, where each pharmacy resident was paired with a P3 research student in a 1:1 manner, overseen by a clinical content expert and a research mentor. The content expert was a clinical specialist practicing in the research area who worked with the resident and research mentor to develop methodology and served as a preceptor to the resident. Research mentors were clinical faculty members from the University at Buffalo School of Pharmacy and Pharmaceutical Sciences with Kaleida Health practice sites. Didactic instruction was provided to students and residents every other month with topics relevant to research-related tasks that would need to be completed at that particular time in the residency year. Topics taught included protocol development, defense presentation creation, IRB document preparation, data collection and analysis, poster

and platform presentation creation, and manuscript preparation. Templates, examples, and additional resources were provided with each presentation.

The residents oriented the P3 students to the electronic medical record and the research project and integrated them into their research activities. They also helped the students obtain necessary resources and provided regular feedback, general oversight, and input regarding student performance. Research students were instructed to help with literature review and introduction writing and to assist in data collection for both the medication use evaluation and research project as applicable.

In the 4 years preceding the student-resident research program initiation, there were 4 resident publications in total (23.5%, $n = 4/17$). These 4 were internal medicine PGY-2 resident publications, largely because this residency program was coordinated by a senior faculty member with research experience. In the 4 years after the research elective/program was implemented, resident publication rates increased to 44.4% ($n = 12/27$).

Providing a research program/elective has improved publication rates of residency research projects at Kaleida Health. Residency programs looking to improve publication rates might consider partnering with schools of pharmacy to use faculty with research experience and students as research assistants.

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