



ELSEVIER

ScienceDirect

Currents in Pharmacy Teaching and Learning ■ (2016) ■■■■■

*Currents
in Pharmacy
Teaching
& Learning*

<http://www.pharmacyteaching.com>

Commentary

Pharmacy resident research: Improving publication potential and simultaneously identifying intangible gains in the process

Brenda E. Thiel, PharmD^{a,1}, Candice L. Garwood, PharmD, FCCP, BCPS^{b,c,d,*},
Lisa Binns-Emerick, CNP^{d,e}

^a *United Physicians, Bingham Farms, MI 48025*

^b *Department of Pharmacy Practice, Wayne State University Eugene Applebaum College of Pharmacy and Health Sciences, Detroit, MI*

^c *Department of Pharmacy Administration, Harper University Hospital, Detroit, MI*

^d *Rosa Parks Geriatric Center, Detroit Receiving Hospital, Detroit Medical Center, Wayne State University, Detroit, MI 48201*

^e *Wayne State University Physicians Group, Detroit, MI*

Abstract

Pharmacy residency projects are a required component of the training program for achievement of the resident learning system goals and objectives. Many residents and residency preceptors have minimal or no prior formal research training, and completion of a research project in the confines of a one-year residency program can be onerous. New residency standards grant some flexibility with projects targeting improved patient care or medication use systems. Some strategies such as a residency research team, have demonstrated a greater rate of successful completion and publication of the research project. Additionally, we describe some of the intangible gains that can be acquired through conduct of the residency research project. Through one pharmacy resident's personal experience, we highlight two of these intangible gains: an appreciation for interprofessional collaboration and contribution to quality improvement of a clinical practice.

© 2016 Elsevier Inc. All rights reserved.

Keywords: Residency research; Quality improvement project; Team science; Interdisciplinary research

Introduction

The majority of pharmacy residents begin their journey into post-graduate training with a robust set of goals and objectives to achieve in a one-year time frame. The American Society of Health-System Pharmacists (ASHP)

has designated the conduct of a pharmacy practice-related project as one of many key residency training goals.¹ Not only do the ASHP Residency Standards endorse project management and research skills, other pharmacy stakeholder organizations have reflected a critical need for pharmacists to understand and apply fundamental research skills to practice.² Despite widespread recognition of the importance of these skills, completion and publication of a project can be quite onerous within the constraints of a one-year residency program. While there are some strategies that may increase the likelihood of resident research reaching publication, residents and residency programs should also focus on the sometimes overlooked intangible benefits related to the project.

* Corresponding author at: Candice L. Garwood, PharmD, FCCP, BCPS, Eugene Applebaum College of Pharmacy and Health Science, Department of Pharmacy Practice, 259 Mack Avenue, Suite 2190, Detroit, MI 48201.

E-mail: cgarwood@wayne.edu

¹At the time of project implementation, Dr. Thiel was a PGY-2 Ambulatory Care Pharmacy Resident at Harper University Hospital, Detroit Medical Center.

The challenges and some solutions surrounding residency projects

Pharmacy residents are often challenged to design a project in a new and unfamiliar practice environment. Because most residents have limited prior research experience, a residency project could potentially be the resident's first exposure to conducting research. The short duration of a residency program is a common limitation to conducting and completing a research project in the course of the program (usually one year). Because time management is an essential co-requisite to residency research, thoughtful organization and planning for realistic deadlines is key for the success of residency projects. Identification and development of a research topic becomes critical very early in the program. Then, a host of milestones ensues, such as Investigational Review Board (IRB) submission, data collection, abstract submission, data analysis and presentation, and article preparation. In recognition of these seemingly daunting tasks, a variety of timelines have been proposed to assist residents in the process of completing a research project. One such timeline is available through ASHP.³

There have been many barriers associated with low rates of residency project publication, as only 4–20% of projects meet this achievement.^{4,7} Motivation has been identified as a barrier, as publication is not a requirement for the successful completion of one's residency. Other notable barriers to project publication include poor quality research or research questions, a lack of enthusiasm, the often abrupt transition to full time employment after residency, the need for mentorship and guidance in article preparation, poor writing skills, unfamiliarity with the article submission process, and limited access to collaborators with expertise in data extraction, analysis, and interpretation.⁴ Additionally, some preceptors have limited research skills and abilities.⁸

In response to the many challenges of conducting a research project, a group at Kaiser Permanente Colorado developed an initiative to enhance the outcomes of resident research.⁹ A clinical pharmacy research team was established to assist residents with research idea development, project feasibility, protocol writing, timeline development, compliance management with IRB submission, and article preparation, submission, and publication. The research team consisted of a senior manager of clinical pharmacy research and applied pharmacogenomics, the ambulatory care specialty residency program director, two independent clinical pharmacy researchers, a clinical pharmacy research scientist, senior project manager, along with pharmacy research fellows, pharmacy students, and research assistants. This design gave the resident a network of advisors and provided collegial support and development to the preceptors. An observational study of the initiative was conducted to evaluate the publication rates for residency projects both before and after the team was established. The study found an increase in the proportion of projects published in peer-reviewed journals following the

establishment of a clinical pharmacy research team, with publication rates of 86.1% [31/36 projects] vs. 46.7% [14/30 projects] ($p = 0.001$).

Though research collaborators and teams can be an encouraging solution to establishing more support, project continuity, and success with resident research, some residents may not have access to a formal research team. These residents may consider collaborating with Advanced Pharmacy Practice Experience (APPE) students, as there are a number of intangible gains that can arise from doing so. Working with these students can assist with data collection, analyses, abstract development, and article preparations. Further, oversight and management of an APPE student can provide an opportunity for the resident to practice administrative skills and preceptorship roles.¹ Responsibility and accountability for an APPE student can also provide additional exercise in organizational and communication skills. Beyond these points, collaborations with APPE students can be mutually advantageous as well. The resident, with additional assistance, can more readily accomplish research related deadlines and the student is able to develop research related skills, which can be carried forth into their post-graduate experiences. Finally, as residents overlap from year-to-year, projects can be continued or expanded from one resident to the next in order to develop and complete more in-depth projects with perhaps greater potential for a robust dataset, impactful outcomes, or even publication.

There are benefits in experiencing the article submission process, even if publication does not result. Seeking a good venue to submit a manuscript can enhance the experience and possibility of publication success. New opportunities become regularly available. Recently, the American Journal of Health-System Pharmacy (AJHP) added the AJHP Resident's Edition journal, a peer-reviewed forum specifically showcasing residency training, including projects carried out during training.¹⁰

Weighing the intangible gains

Though many consider the outcomes of residency research to be purely scholarship output, there are a number of intangible benefits beyond publication. In the year 2000, pharmacy practice residency program directors and specialty residency program directors were surveyed to examine their opinions and attitudes toward residency projects.¹¹ There was an overwhelming consensus that residency projects were valuable and should remain. Directors believed residency projects adequately prepared residents to conduct future projects by enhancing problem solving and presentation skills. Conduct of a residency project has been noted to improve research knowledge, skills, and abilities in the form of idea generation, critical thinking skills, hypothesis generation, confidence when navigating institutional committees (such as the IRB or Pharmacy and

Download English Version:

<https://daneshyari.com/en/article/4938008>

Download Persian Version:

<https://daneshyari.com/article/4938008>

[Daneshyari.com](https://daneshyari.com)