Original Article

Unique Collaboration Between a Private College of Pharmacy and a Private Academic Health System

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Abstract

Advanced experiential education represents the culmination of a pharmacy student's training, where students can apply the knowledge they have learned in the classroom to real patients. Unfortunately, opportunities for students to provide the direct patient care recommended by pharmacy organizations and accrediting bodies are lacking. Additionally, academic health systems that can provide these experiences for students are experiencing hardships that have stalled the expansion of postgraduate training programs and services. Formal cooperation between unaffiliated colleges of pharmacies and academic health systems has the potential to increase the number of experiential students completing rotations in an academic environment, expand postgraduate education training programs, enhance the development of resident educators, increase research and scholarly opportunities, and expand clinical pharmacy services. This article describes the formation of a unique joint initiative between a private academic health system without a college of pharmacy and a private college of pharmacy without a hospital. The successful cultivation of the relationship has resulted in professional growth at both institutions and can be implemented at other sites around the country to synergize the efforts of academic health systems and colleges of pharmacy.

Key Words—academic medical center, clinical pharmacy services, experiential education, scholarship

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The Accreditation Council for Pharmacy Education (ACPE) Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree Guidelines 2.0 emphasize the need for experiential education that provides students with direct patient care experience in a variety of settings.¹ Similarly, the American College of Clinical Pharmacy

(ACCP) issued a white paper offering recommendations for quality experiential education for students,² which includes ensuring that students are not simply observing pharmacy practice but, instead, are directly impacting patient care.³ These educational opportunities are often best met at hospitals with a strong history of providing clinical pharmacy services.

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Colleges of pharmacy struggle to secure opportunities for their students to provide quality direct patient care in the inpatient setting. One solution to this problem is an affiliation with a large academic health system. At the time of writing, there are 129 colleges and schools accredited by ACPE.⁴ Of these, approximately one-third are located at an academic health center with a teaching hospital.⁵ Most of those are public universities with a comprehensive medical center campus. In contrast, the majority of private colleges of pharmacy, as well as some public universities, operate outside of an academic health center. In these situations, colleges of pharmacy must rely heavily on outside institutions to fulfill the program's experiential education requirements.

To provide pharmacy students with experiences at large teaching facilities, some colleges of pharmacy have developed formal relationships with otherwise unaffiliated hospitals and health systems.⁶⁻¹⁰ The partnership between an academic health system and college of pharmacy can be mutually beneficial.¹¹ We describe our experience with a joint initiative between a private academic health system and a private college of pharmacy.

BACKGROUND ON THE ACADEMIC HEALTH SYSTEM

The Emory University Woodruff Health Sciences Center has professional programs for many health disciplines, but it does not have a pharmacy program. Emory Healthcare is the clinical branch of the Emory University Woodruff Health Sciences Center; it focuses its efforts on patient care, education, research, and health policies. The Department of Pharmaceutical Services at Emory Healthcare has a long history of providing clinical pharmacy services; it has 35 clinical pharmacy specialists providing direct patient care at 2 of its teaching hospitals and a residency program that offers 6 postgraduate year one (PGY1) positions and 4 PGY2 positions in critical care, internal medicine, nutrition support, and oncology.

BACKGROUND ON THE COLLEGE OF PHARMACY

Mercer University College of Pharmacy (MUCOP) is a private school located in Atlanta, Georgia. The current curriculum requires 90 hours of prepharmacy coursework and includes 4 professional years of study. Although Mercer University is considered an academic health center, it does not own a teaching hospital, therefore it is challenging to place experiential students in the institutional setting, especially in the context of expanded experiential hour

requirements, increased class sizes, and competition for clinical sites.¹² A key initiative was to cultivate relationships with Atlanta hospitals, including Emory Healthcare, in order to share resources.

DEFINING THE RELATIONSHIP

The relationship between Emory Healthcare and MUCOP is highly integrated and goes beyond an affiliation where students rotate through Emory Healthcare facilities. The relationship, better characterized as a joint initiative, synergizes the efforts of the hospital and the college in the areas of clinical practice, teaching, and research. A contract formalizing the joint initiative was enacted. The agreement characterizes the key elements of the joint initiative and outlines expectations and remunerations for both institutions.

BENEFITS TO ACADEMIC HEALTH SYSTEMS

Emory Healthcare receives a number of benefits from the joint initiative including increased clinical pharmacy services, coordination of experiential students, increased number of residency positions, and enhanced job satisfaction amongst pharmacists. These remunerations are apparent throughout the department and are listed in Table 1.

For many hospitals, it has been a challenge to increase clinical pharmacy services in a difficult economic climate. One solution that expands clinical pharmacy services without impacting the department's budget is to partner with a college of pharmacy that is willing to provide faculty to the site on a part-time or full-time basis. Clinical faculty are often responsible for taking experiential students throughout the year and can assist with bridging gaps in clinical services. Three, full-time MUCOP faculty provide clinical services at Emory Healthcare 3 days per week in the areas of internal medicine and ambulatory oncology. The faculty are integrated within respective medical teams, perform medication histories and pharmacokinetics consults, and educate patients about their medications. These faculty strive to provide consistent clinical services to their patients, even when they are not at the health system. The internal medicine faculty stagger their days at the hospital to provide clinical coverage 5 days per week for most months of the year. In addition, internal medicine faculty take Emory Healthcare PGY1 and PGY2 residents approximately 7 months throughout the year to assist with clinical coverage on days that both faculty members are not present. For complex clinical questions, providers can contact the assigned inpatient

Table 1. Benefits to the health system and to the college of pharmacy

Benefits to the health system	Benefits to the college of pharmacy
<ul style="list-style-type: none"> • Faculty appointments for clinical staff • Teaching opportunities for residents • PGY2 residency programs expansion • Additional resources available through College of Pharmacy (library, statistical software) • College of Pharmacy faculty to serve as preceptors, research advisors, and RPDs • Clinical pharmacy services expansion with use of APPE students • Faculty provide orientation for all APPE students • Travel funding for residents and clinical staff • Pharmacy teaching certificate program for residents 	<ul style="list-style-type: none"> • IPPE and APPE rotations expansion • Residents may decrease faculty workload through facilitations and lectures as part of the pharmacy teaching certificate program • Research collaboration opportunities • Potential for increased residency opportunities for college alumni • Quality practice sites for clinical faculty and students • College name recognition through involvement in residency training • Access to clinical specialists in practice areas that colleges may not have faculty

Note: APPE = Advanced Pharmacy Practice Experiences; IPPE = Introductory Pharmacy Practice Experiences; PGY2 = postgraduate year 2; RPDs = Residency Program Directors.

pharmacist who can offer assistance or page the pharmacy resident on call. Ambulatory oncology services are covered by 2 infusion center pharmacists who can answer clinical questions and provide patient education when the faculty member is not on site. Faculty members also intermittently serve on hospital committees and assist with hospital quality improvement initiatives. One project demonstrated a significant improvement in pneumococcal vaccination rates in the internal medicine population¹³ and another project assessing anticoagulant meaningful use metrics was selected as a Great Eight Best Paper Finalist at the ACCP Annual Meeting in 2012.¹⁴

The opportunity for pharmacists to work with learners may improve their job satisfaction. Sixty-nine percent of the respondents to a 2005 ACCP survey stated that the ability to teach students and residents was an important motivating factor for career success.¹⁵ Hospitals assigned experiential students need to have standardized processes and evaluations in place.^{11,16} As a part of the Southeastern Pharmacy Experiential Education Consortium, MUCOP standardizes evaluations and other processes to ease the burden for preceptors who take students from multiple colleges. The MUCOP faculty who practice at Emory Healthcare coordinate student activities, such as orienting Advanced Pharmacy Practice Experiences (APPE) students and scheduling presentations, to streamline the process for preceptors.

Furthermore, survey respondents identified “adjunct faculty appointment at school of pharmacy” as an important motivational strategy for clinical pharmacists,¹⁵ and ACPE standards state that

preceptors should hold a defined position at the college.¹ Pharmacists and residents serving as preceptors at Emory Healthcare are encouraged to apply for an adjunct faculty appointment. The appointment provides preceptors access to poster printing, drug information, and professional development resources at MUCOP.

Funding to support professional development was an important motivational factor for the majority of pharmacists who responded to an ACCP survey.¹⁵ These funds are increasingly difficult for health systems to procure; in exchange for the experiential rotations that Emory Healthcare provides, MUCOP assists with funding for preceptor and resident travel.

Another challenge for health systems is expanding residency training programs. Although the Center for Medicare & Medicaid services provides pass-through funds for PGY1 training, those funds are not accessible for the training of PGY2 residents; therefore, health systems must justify these positions.¹⁷ Partnering with a college of pharmacy may be a viable solution for increasing PGY2 positions. Emory Healthcare was able to expand the number of PGY2 residency positions from 2 residents to 4 residents in the last 3 years with financial assistance from MUCOP.

The AACP and ASHP capacity study identified educational preparation for preceptors as a key initiative.^{11,16} Most clinical pharmacists will be expected to teach student pharmacists but many are not formally trained to do so.¹⁸ One method of developing residents as educators is to offer a teaching certificate program.¹⁸⁻²⁰ MUCOP offers a teaching certificate program to local

residents. Key components of the program reflect the ACCP Guidelines for Resident Teaching Experiences.¹⁸ This formalized teaching training serves as recruitment tool for residents¹⁸ and enhances their marketability in a competitive job market where many available positions are within universities.

BENEFITS TO COLLEGES OF PHARMACY

Colleges of pharmacy also benefit from partnering with a health system (Table 1). Colleges of pharmacy face continued pressure to expand the experiential training, and institutional sites are the most difficult to secure.^{21,22} The greatest benefit that MUCOP receives from its partnership with Emory Healthcare is the increased number of rotations for APPE and Introductory Pharmacy Practice Experience (IPPE) students at the 2 main hospitals. In 2010-2011, both hospitals provided 36 APPE rotations; however, in 2012-2013, both hospitals provided 124 APPE rotations. The increase in availability has exposed more students to clinical pharmacy and multidisciplinary, direct patient care. The joint initiative facilitated the expansion of the institutional IPPE program at MUCOP to meet the increased ACPE requirements.¹ Thirty IPPE students at Emory Healthcare rotate through the inpatient pharmacy, round with residents and clinical specialists, and participate in educational sessions facilitated by residents. Preceptors have commented that since expanding IPPE, students are better prepared for APPE.

Postgraduate training in pharmacy education benefits both the health system and the college of pharmacy. The benefits to the health system and residents have been described above; however, MUCOP benefits by using residents to serve as co-preceptors for APPE and IPPE students, facilitators for small group sessions, and lecturers in elective and required modules. In addition, data from AACP for the 2011-2012 academic year demonstrate a national shortage of faculty, with the majority of vacancies in the clinical sciences and pharmacy practice.²³ Training residents how to teach strengthens the applicant pool for entry-level faculty positions and improves hiring efficiency.²⁰ One survey illustrated that residents who pursued faculty positions were more likely to have lectured, facilitated problem-based learning or small group seminars, and/or served as a primary preceptors during their residency than other respondents.²⁴ Even if residents do not pursue careers in academia, it is hoped that the clear connection between practice and education will engender in them a sense of obligation for training the future of the profession.

A practice site in an academic health system is a benefit for many clinically trained faculty. These practice sites often mirror the residency experience, making the transition to academia easier. Collaborating with pharmacists and residents at the health system can generate practice-based research and improve scholarly productivity. At MUCOP, several faculty and students have partnered with pharmacists and physicians at Emory Healthcare on research initiatives. Twenty-seven posters have been presented at national and state pharmacy meetings and 3 manuscripts have been published since the initiation of the collaboration 5 years ago.

BARRIERS/CHALLENGES

Partnership offers many benefits for colleges of pharmacy and for health systems; however, there are also several challenges. First of all, brokering a formal agreement is time consuming, as administrators and legal counsel for both institutions are involved. Managing the expectations of both the college of pharmacy and the health system is also a challenge for clinical faculty members at the site. Patient care obligations may conflict with meetings and teaching responsibilities at the college, and faculty members may feel pressured to be in 2 places at one time. Providing consistent clinical services can be difficult if a faculty member is only at the site part-time. Plans for providing clinical services when the faculty member is not present must be discussed in advance, and, if possible, remote computer access to the site should be provided. Health system pharmacists may feel burdened by the increased number of trainees as a result of the expansion of residency programs and experiential students. Establishing research collaboration can be complicated, as grants and contracts offices and institutional review boards from both sites need to be involved before research can commence. All of these challenges are real, but most can be overcome by patience, open communication, and commitment.

CONCLUSION

Partnership between a college of pharmacy and a health system is mutually beneficial and maximizes the use of scarce resources. The formal relationship may be difficult to set up initially, but the collaboration can synergize the efforts of both site pharmacists and faculty, improve pharmacist job satisfaction, and provide better training opportunities for residents and students.

REFERENCES

1. Accreditation Council for Pharmacy Education. Accreditation standards and guidelines for the professional program in pharmacy leading to the doctor of pharmacy degree guidelines 2.0. <https://www.acpe-accredit.org/pdf/FinalS2007Guidelines2.0.pdf>. Accessed August 16, 2013.
2. Haase KK, Smythe MA, Orlando PL, et al. Quality experiential education. *Pharmacotherapy*. 2008;28:1547.
3. Rathbun RC, Hester EK, Arnold LM, et al. Importance of direct patient care in advanced pharmacy practice experiences. *Pharmacotherapy*. 2012;32:e88-97.
4. Accreditation Council for Pharmacy Education. Preaccredited and accredited professional programs of colleges and schools of pharmacy. <https://www.acpe-accredit.org/students/faqs.asp>. Accessed August 16, 2013.
5. Knapp DA, Knapp DE. Attributes of colleges and schools of pharmacy in the United States. *Am J Pharm Educ*. 2009;73:96.
6. Bird ML, Dunn RL, Hagemann TM, Burton ME, Britton ML, St Cyr MB. Collaboration between a college of pharmacy and a for-profit health system at an academic medical center. *Am J Health Syst Pharm*. 2012;69:1150-1156.
7. Cox CE, Lindblad AJ. A collaborative approach to improving and expanding an experiential education program. *Am J Pharm Educ*. 2012;76:53.
8. Crader M, Chelette C. A beneficial partnership between hospitals and colleges of pharmacy: Development and discussion of a joint cooperative endeavor agreement. *Hosp Pharm*. 2010;45:697-704.
9. Hall RG 2nd, Foslein-Nash C, Singh DK, et al. A formalized teaching, practice, and research partnership with the Veterans Affairs North Texas Health Care System: A model for advancing academic partnerships. *Am J Pharm Educ*. 2009;73:141.
10. Skeffington P, Akus M, Goren J. Expanding pharmacy services in a health system through partnership with a college of pharmacy. *Am J Health Syst Pharm*. 2007;64:925-926.
11. Flynn AA, MacKinnon GE, 3rd. Assessing capacity of hospitals to partner with academic programs for experiential education. *Am J Pharm Educ*. 2008;72:116.
12. Danielson J, Ramirez J, Krueger J, et al. The capacity ratio as a measure of solvency in experiential education. *Am J Pharm Educ*. 2011;75:198.
13. Smith JG, Metzger NL. Evaluation of pneumococcal vaccination rates after vaccine protocol changes and nurse education in a tertiary care teaching hospital. *J Manag Care Pharm*. 2011;17:701-708.
14. Chesson MM, Fischer CJ, Stearns CR. Evaluation of anticoagulation overlap therapy in the treatment of venous thromboembolism at an academic medical center. *Pharmacotherapy*. 2012;32:179e.
15. Goodwin SD, Kane-Gill SL, Ng TMH, et al. Rewards and advancements for clinical pharmacists. *Pharmacotherapy*. 2010;30:114.
16. Scheckelhoff DJ, Bush CG, Flynn AA, et al. Capacity of hospitals to partner with academia to meet experiential education requirements for pharmacy students. *Am J Health Syst Pharm*. 2008;65:e53-71.
17. Miller DE, Woller TW. Understanding reimbursement for pharmacy residents. *Am J Health Syst Pharm*. 1998;55:1620-1623.
18. Havrda DE, Engle JP, Anderson KC, et al. Guidelines for resident teaching experiences. *Pharmacotherapy*. 2013;33:e147-161.
19. Romanelli F, Smith KM, Brandt BF. Certificate program in teaching for pharmacy residents. *Am J Health Syst Pharm*. 2001;58:896-898.
20. Kirdahy K, Turner S, Williams J. Description of an academic teaching rotation for postgraduate year 1 pharmacy residents. *Am J Health Syst Pharm*. 2012;69:228-231.
21. Brackett PD, Byrd DC, Duke LJ, et al. Barriers to expanding advanced pharmacy practice experience site availability in an experiential education consortium. *Am J Pharm Educ*. 2009;73:82.
22. Haswell JL, Byrd DC, Foster S, Brown R. The use of capacity ratios in introductory pharmacy practice experiences. *Am J Pharm Educ*. 2012;76:172.
23. American Association of Colleges of Pharmacy. Vacant budgeted and lost faculty positions-academic year 2011-12. <http://www.aacp.org/resources/research/institutionalresearch/Documents/IRB%20No%2013%20-%20Faculty%20vacancies.pdf>. Accessed August 16, 2013.
24. McNatty D, Cox CD, Seifert CF. Assessment of teaching experiences completed during accredited pharmacy residency programs. *Am J Pharm Educ*. 2007;71:88. ■