

Pharmaceutical Care Leadership: An Innovative Pharmacy Practice Residency Model

Todd D. Sorensen and Sarah M. Biebighauser

Objective: To describe the establishment of the Pharmaceutical Care Leadership Residency Program (PCLRP), a residency experience that prepares graduates to take responsibility for leading practice change in pharmacy. **Setting:** University-based residency program focused on delivery of pharmaceutical care in ambulatory care settings. **Practice Description and Innovation:** Currently, ambulatory care pharmacy practice is in a position analogous to that of institutional-based clinical pharmacy in the 1960s and 1970s in that practice in this arena is not well established and tremendous opportunity for growth exists. Just as early residency programs in the institutional environment specifically emphasized the development of leaders who would advance clinical pharmacy, residencies in the ambulatory setting could now do much to further pharmaceutical care practice. The 24-month PCLRP experience combines elements of a traditional pharmacy practice residency with specific leadership development activities designed to help residents develop the skills required for establishing influence, practice-based leadership, leadership through teaching, and professional advocacy. **Main Outcome Measures:** Individuals completing this program will possess a complement of skills and experience not often found in new pharmacy practitioners. They will be prepared to pursue a variety of career paths that focus on advancement of pharmaceutical care practice. **Results:** Program graduates report feeling better prepared and more confident in their ability to accept responsibility for leading practice change. They have also been successful in establishing new pharmaceutical care practices during the residency experience. **Conclusion:** The success of pharmacy's professional transformation is dependent on the profession's ability to help individuals develop the knowledge, skills, and values required to lead this initiative. The residency program meets this challenge by placing a unique emphasis on developing leadership skills as they relate to establishing influence, pharmaceutical care practice development, teaching, and professional advocacy.

Keywords: Leadership, residency, education, practice development, professional development.

J Am Pharm Assoc. 2003;43:527-32.

As the pharmacy profession continues to work toward its stated mission of implementing pharmaceutical care,¹ it is in need of individuals who can exercise leadership in a range of areas that are vital to the demonstration of pharmacists' new roles. These areas include the direct delivery of patient care, creation and implementation of patient-centered practices, development of viable reimbursement models, practice-based research, professional advocacy,

and the provision of effective education on the principles of pharmaceutical care practice to pharmacy students and practitioners. Clearly, the quality of leadership is critical to the success of pharmacists' professional transformation.

While many pharmacists are actively working to create professional change, the profession has not yet reached the "critical mass" that will tip the scale toward success in this endeavor. New graduates, therefore, represent perhaps the most significant source of future leaders; however, it is probably unreasonable to view an entry-level professional degree program as sufficient in itself to instill in its graduates the knowledge and skills required to actively lead this change. The opportunities for growth of professional responsibilities in ambulatory care settings that exist today mirror those present in institutional settings in the 1960s and 1970s. Residency programs served as fertile ground for the development of pharmacy's leaders during the advancement of clinical pharmacy in hospitals; therefore, the profession should expect residency programs to serve as a substantial source of the next generation of

Received December 14, 2002, and in revised form February 25, 2003. Accepted for publication April 4, 2003.

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pharmacy leaders in the ambulatory care setting.

However, if residency graduates are to be looked upon as the profession's change agents, those who design and conduct pharmacy residency programs must ensure that transformative leadership is a significant component of the resident's professional development. Fulfilling the role of change agent requires specific knowledge, skills, and values,^{2,3} and residency program staff should consider whether their programs are most effectively preparing individuals for this responsibility.

Objectives

In this article, we describe the establishment of the Pharmaceutical Care Leadership Residency Program (PCLRP) by the University of Minnesota (UM) College of Pharmacy. PCLRP is an innovative 2-year program designed to help individuals develop the skills to lead practice change in pharmacy. This residency model is presented to stimulate discussion in the profession about how and to what extent leadership development is addressed in residency programs. Furthermore, we anticipate that the concepts and learning activities presented here can be adapted wholly or in part by those who are responsible for residency programs and/or other practitioner development activities.

Residency Training and Leadership: A Historical Perspective

In the United States, residency training in pharmacy serves to produce new leaders in the profession in two distinct ways. First, residency programs serve as an impetus for change because their host institutions must continually review and advance their services to ensure up-to-date educational experiences for their residents. Second, residencies provide the training ground for budding leaders in the profession, giving these individuals an early opportunity to stretch and hone their leadership skills under the mentorship of some of the profession's most skilled leaders, a group that includes innovative practitioners on the front lines of change. Yet, the emphasis on the development of leadership in today's residency programs may not be equal to what it has been in the past.^{4,5}

In his address at the 1996 American Society of Health-System Pharmacists (ASHP) National Pharmacy Residency Preceptors Conference, Max Ray articulated evidence for residency training's roots in leadership development.⁵ He described the pharmacy residency programs of the 1960s and early 1970s as "primarily providing training for hospital pharmacy leaders and managers." He noted that the accreditation standards of that era include the following statement: "The objectives of residency training ... are to provide experience in learning how to coordinate the total pharmacy service with the needs of the total institution and to provide a broad scope of in-depth experiences leading to an advanced level of knowledge and fostering the ability to conceptualize new and

improved pharmacy services."⁶

Today, residency programs, particularly those that involve ambulatory care practices, are largely community pharmacy-based or clinic-based. These practices are currently in a situation analogous to that of the institutional practices of the 1960s and 1970s in that pharmacists' professional duties are changing significantly. Residency programs of the 1960s and 1970s served as a force for change in institutional practice, partially due to their emphasis on leadership development, and current community and ambulatory care residencies could play a similar role in facilitating leadership growth.

Yet, pharmacy practice residency training has gradually moved away from preparing individuals for leadership and/or management positions and toward preparing pharmacists for patient care roles, whether as generalist pharmaceutical care providers or clinical specialists.⁴ While patient care skills are certainly in demand, preparing individuals to *do* this type of work does not ensure that they are also prepared to *lead* this type of work. An individual with exceptional patient care skills may not be able to develop a vision for a practice, make the connections with other practitioners and administrators necessary to establish the practice, or teach students or other pharmacists the skills required to work in a pharmaceutical care practice. This potential paradox is of particular concern to the profession's efforts to establish new roles for its members. It begs the question, "If pharmaceutical care is where the profession wants to go, how do we ensure we have the people to take us there?"

We are not suggesting that the current approach to residency training ignores leadership development. The current ASHP accreditation standard for pharmacy practice residencies describes the purpose of these experiences as "to further the development of leadership skills that can be applied in any position and in any practice setting" and defines leadership skills and traits that may be enhanced during a residency.⁷ Further, several goal statements in the accreditation standard focus on development of leadership skills.⁸ However, management skills, rather than true leadership skills, are more often stressed during residencies. Developing leadership skills requires more than simply participating or contributing to an activity. Leadership skills are best honed by providing opportunities to actually lead⁹—to envision, plan, implement, and evaluate an idea or program—and it may be difficult to provide substantial opportunities to take on tasks of this complexity in a traditional 1-year residency program.

Our strategy in developing the PCLRP described in this article was to create a 2-year residency experience that meshes the qualities of a strong patient care-focused residency experience with numerous, structured learning activities that address various components of personal and professional leadership.

Program Description

Overview

The residency experience at the UM College of Pharmacy was conceived to achieve two broad objectives: develop a strong clinical knowledge base and patient care skills and enhance an individual's leadership capacity. With respect to the former, the residency focuses on provision of care to ambulatory patients in primary care settings. Regarding the latter, the program addresses four domains of leadership: application of personal traits and skills as they relate to establishing influence, envisioning and implementing a practice, teaching ideals and concepts, and fostering the ability to take on a professional advocacy role.

Because of the breadth of PCLRP's learning objectives and the preceptors' desire to provide opportunities to practice these skills, the program is 2 years in length. Throughout the experience, one-half of the resident's time is spent providing pharmaceutical care, and the other half is devoted to learning activities that address the non-patient care components of the program (see Figure 1). The program's first resident was accepted in July 1999. Three individuals have completed the program to date. One or two residents are recruited annually.

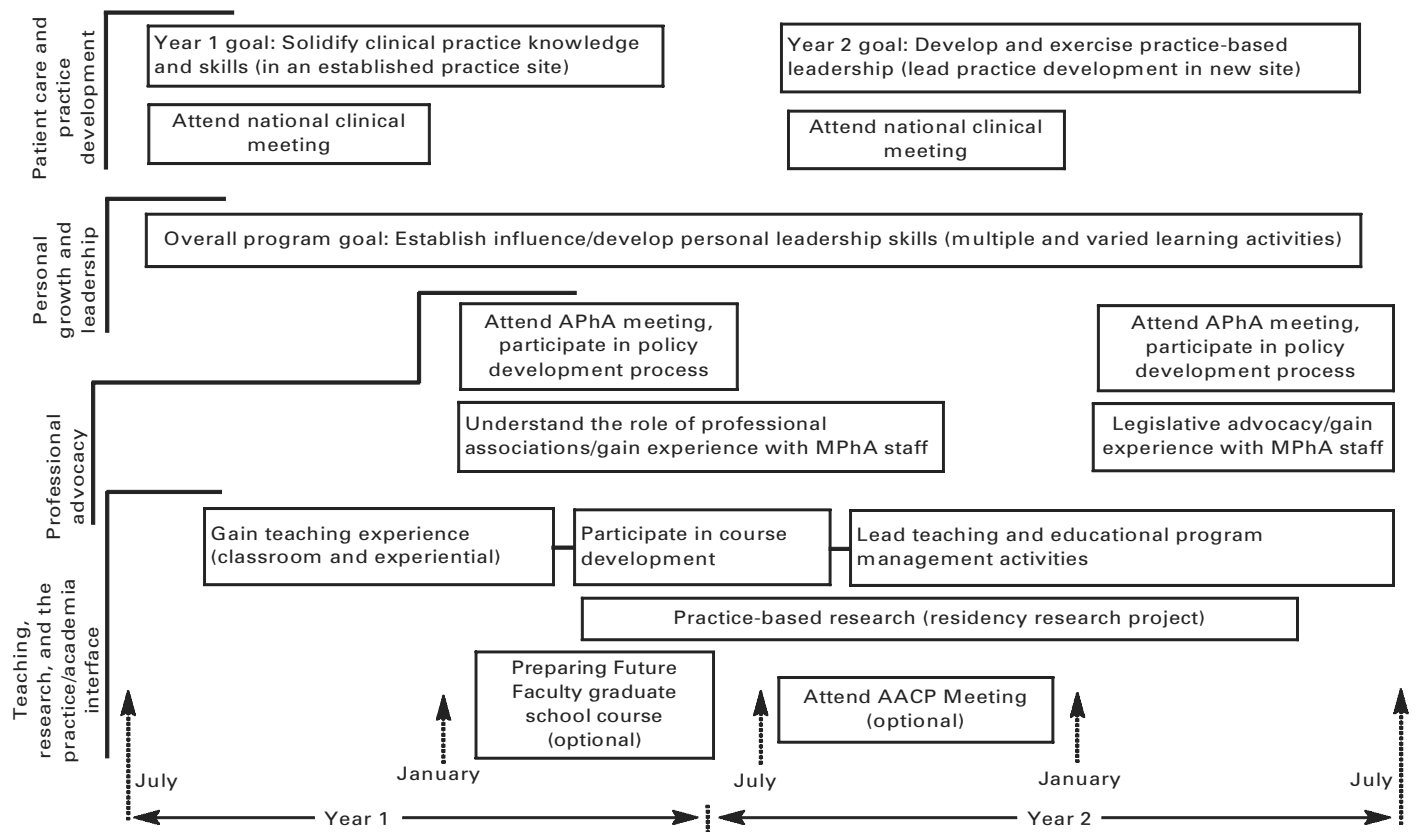
In the following paragraphs, we discuss the design of the resi-

dustry experience, highlighting the most important areas of emphasis, funding for the program, and outcomes observed to date.

Clinical/Practitioner Skills

In our program, residents take responsibility for providing care in two distinct locations. The first year of the residency provides the most structured experience with respect to developing general practitioner skills. The primary goals of a resident's practice-based activities in the first year are to establish a solid base of clinical knowledge and self-confidence while enhancing such patient care skills as clinical decision making, communication with patients, health care documentation, and maintaining relationships with other health care providers. Residents are placed in a well-established practice setting, where they are exposed to numerous patient care opportunities under the strong mentorship of a skilled pharmacist-preceptor. The residency currently provides this experience in university-affiliated primary care clinics that serve as longitudinal training sites for family practice or internal medicine residents in addition to pharmacy residents. Clinical preceptors are UM College of Pharmacy faculty members, and in the clinic settings residents have the opportunity to perform comprehensive pharmaceutical care assessments and work collaboratively with

Figure 1. Pharmaceutical Care Leadership Residency Program Outline



AACP = American Association of Colleges of Pharmacy; APhA = American Pharmacists Association; MPhA = Minnesota Pharmacists Association.

Table 1. Selected Readings on Leadership

- American Society of Health-System Pharmacists. *Harvey A.K. Whitney Award Lectures (1950–2001)*. Bethesda, Md: American Society of Health-System Pharmacists; 2002.
- The Arbing Institute. *Leadership and Self-deception: Getting Out of the Box*. San Francisco, Calif: Berrett-Koehler Publishers, Inc; 2000.
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- Harvard Business Review. *Best of HBR on Leadership: Emotionally Intelligent Leadership*. Harvard Business School Publishing; 2001.
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- Hunter JC. *The Servant: A Simple Story About the True Essence of Leadership*. Roseville, Calif: Prima Publishing; 1998.
- Kotter JP. *Leading Change*. Boston, Mass: Harvard Business School Press; 1996.

both faculty and resident physicians.

In addition to on-site patient care experiences, a resident's clinical skills are enhanced through participation in weekly pharmacotherapeutic and case discussions and a monthly journal club. These sessions are coordinated by the program director, moderated by faculty members and residency preceptors, and attended by all pharmacy residents at the college.

The clinical experience in the second year of the residency offers a different perspective from that described above and is discussed later in this article.

Residents' leadership skills are developed primarily through mentorship. Learning activities and leadership experiences, which may change from year to year or from resident to resident, are supplemented with mentoring discussions and guided reflection. This dynamic, relationship-oriented approach has been cited by Zaleznik¹⁰ as a key component of leadership development. This philosophy also follows Pierpaoli's¹¹ definition of an ideal preceptor as "a mentor [who] openly and unselfishly shares resources and knowledge and develops opportunities for residents." Both Zaleznik and Pierpaoli have suggested that professional growth is often best supported by a relationship that is fluid and individualized rather than the completion of well-established learning activities done by many individuals over time.

Developing Personal Skills in Establishing Influence

No absolute rules guide how best to help residents master their skills in establishing influence. Fortunately, there is no shortage of resources that can be employed to foster the growth of these skills.

The residency program employs several mechanisms to instill the values and develop the skills one must have to effectively influence individuals, groups, or organizations. An assigned reading followed by discussion is one approach we take. Table 1 lists selected references we have used. Residents have also attended ASHP's Leadership Conference on Pharmacy Practice Management, which serves as an opportunity not only for education and professional growth, but also for networking with pharmacy leaders from across the United States. We have also made

use of the Myers-Briggs Type Indicator, which helps residents to identify their personality preferences, followed by group discussion sessions facilitated by a human resources expert on how these preferences affect leadership and the management of change. Finally, the program also uses the BarOn Emotional Quotient Inventory as a tool to help residents measure emotional intelligence (EI) and identify areas for improvement. EI has been defined as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships."¹² A growing body of research suggests that EI is a more significant predictor of success in many roles and responsibilities, including leadership, than is intelligence quotient.¹²

Practice-Based Leadership

The practice-based activities of the first year of the residency focus on establishing strong patient care skills; during the second year, residents assume the challenge of establishing a new pharmaceutical care practice. After spending a year in a setting where pharmacist services are well entrenched in the daily patient care activities of a clinic, the resident is placed in a new setting where the delivery of pharmaceutical care is either limited or nonexistent. This setting is an ambulatory care environment, and that environment could be a primary care clinic or a community pharmacy. Faculty make the decision regarding second-year practice location after considering the long-term career goals of the individual resident and the partnership opportunities available to the college.

In this setting, the resident takes responsibility for establishing the vision for the practice and leading the development and evaluation of the goals that will guide the realization of the vision. This work is done in collaboration with mentors who have had significant experience in practice development. Mentors are a source of guidance with respect to practice planning, serve as a sounding board for residents' ideas, and provide perspective and motivation when obstacles are encountered. However, they do not take responsibility for developing the practice, and residents are given considerable autonomy in order to build their self-confidence and sense of independence.

Leadership Through Teaching

Our program provides opportunities for residents to engage in didactic as well as experiential teaching activities. In each of the four academic semesters bridged by the residency program, residents serve as teaching assistants in the UM's Pharmaceutical Care Learning Center (PCLC). The PCLC provides skills-based education over 5 semesters of the pharmacy curriculum, covering a broad range of material from pharmaceutical compounding and prescription processing to clinical problem solving and patient assessment. Residents spend much of their time in direct teaching activities with small groups of six to seven students, primarily working on developing patient care skills. They also work collaboratively with PCLC faculty to develop, evaluate, and modify the curriculum.

Residents also take responsibility for precepting pharmacy students at their clinical practice site during the first year of the residency. This experiential teaching role requires a slightly different set of skills than teaching in a classroom environment. It is here that residents are expected to help students think through drug therapy problem solving, and in teaching this process, the resident can master it in his or her own mind. Additionally, because these practice sites are affiliated with UM's Medical School, residents also play an active role in the education of medical students and residents.

Finally, residents who aspire to academic positions have the opportunity to enroll in Preparing Future Faculty, a course offered through UM's Graduate School. This course addresses issues related to teaching students in higher education and explores the roles and responsibilities of university faculty members.

Professional Advocacy

Individuals who are able to effectively lead within pharmacy must understand how the profession as a whole engages its internal and external constituencies. Developing such an understanding requires comprehending how pharmacy is organized and how pharmacy associations connect with their respective memberships, develop policy, and communicate with groups such as government, regulatory bodies, and other health care professions. In our residency program, we not only take steps to help new practitioners bridge the substantial gap from being a member of student-focused organizations to practitioner-based associations, we also attempt to give them early insight into and experience working on the sorts of timely issues faced by these groups.

In addition to assigned readings and discussions on current issues facing the profession, residents attend the American Pharmacists Association's Annual Meeting and participate in that organization's policy development process. During the second year of the residency, residents also complete a "professional advocacy" rotation at the Minnesota Pharmacists Association. The rotation is scheduled to coincide with the state's annual legislative session, allowing residents to participate in the association's legislative advocacy activities.

Program Funding

The UM College of Pharmacy provides funding for the residency. This was initially justified primarily because residents provide teaching support to the PCLC. During academic semesters, residents maintain approximately 8 hours per week of direct teaching/contact time plus additional time grading and performing other forms of student assessment. Residents also collaborate with PCLC faculty on curriculum enhancement initiatives throughout the residency program.

However, the residency program has benefited the college beyond the direct teaching support provided by residents. In establishing the program, we anticipated that practices developed during the resident's second year in the program would become model training sites for the college's Advanced Pharmacy Practice Experience (APPE) program, and this expectation has been realized. Each of the pharmaceutical care practice sites developed by second-year residents to date now host fourth-year pharmacy students, providing 30 new APPE opportunities for the college.

Finally, the Medical Education and Research Costs (MERC) program administered by the Minnesota Department of Health provides reimbursement to health professions training sites, including our program, helping to offset a portion of the program's direct costs. MERC was established in 1996 with the purpose of supporting certain medical education activities that were historically supported in significant part by patient care revenues.¹³ MERC currently provides more than \$10,000 per year of financial support for the PCLRP.

Program Outcomes

The PCLRP allows residents to attain experience and a complement of skills not often identified in new practitioners, and we believe that, as a result, graduates will be prepared to pursue a variety of careers in pharmacy. In conceptualizing the residency, we expected that program graduates would be prepared to join an existing pharmaceutical care practice, identify new opportunities to create a practice for themselves, join an organization where they would be responsible for leading a practice transformation effort, or pursue an academic career and foster the development of practice skills in students or work to implement and evaluate models of community pharmacy practice. We also expected that residents would seek significant leadership roles within state and/or national professional associations, potentially bringing a unique perspective to the activities of these groups, or take on other formal advocacy roles within the profession. Finally, we expected that program graduates would fully appreciate the responsibility of mentoring in pharmacy, and, regardless of position or title, exercise leadership through a lifelong commitment to the relationship-based development of knowledge, skills, and values in students and new practitioners.

Since only three individuals have completed the program to date, it is difficult to report specific outcomes. However, the three past and one current resident provided anecdotal evidence of the program's

success, stating in conversations with the program director that after having completed the PCLRP they are more likely to reflect on personal strengths and weaknesses with respect to leadership and apply this understanding of personal strengths and experience to future leadership opportunities. They also reported being more knowledgeable about the organization of pharmacy and the mechanisms the profession uses to establish policy and influence external groups. As a result, they felt more comfortable advocating for the profession and reported having greater confidence in their own ideas and their ability to express those ideas. Finally, the residents indicated that they feel prepared to assume leadership roles in practice development. Two graduates initially accepted positions in which they were fully or partially responsible for establishing a new practice in a primary care clinic in which a pharmacist had not previously been present. One of these graduates has since moved into an instructional design and teaching role with a college of pharmacy. The third graduate has joined a college of pharmacy as an assistant professor with responsibility for teaching pharmaceutical care skills.

Because our program is a 2-year, rather than a 1-year, experience, we have observed that it affords greater flexibility in terms of the scheduling and scope of learning activities for both staff and residents. We do not believe an approach in which a resident completes a general practice residency followed by a specialty residency in pharmaceutical care leadership would yield a similar degree of flexibility. Certainly, it would be difficult to provide meaningful experiences addressing all of the program's leadership-related goals in a single year. We have also noted that residents, by working with a group of mentors for this length of time, are more likely to take advantage of opportunities to write grant proposals, which may not be a strictly necessary skill but is certainly beneficial for individuals working to lead practice change. They have also been more likely to present abstracts at national meetings or prepare manuscripts for submission to professional journals. Participating in these activities helps residents appreciate the importance of sharing their experiences with a broader audience, which is essential for any change agent. Also, in the case of manuscripts, residents may actually be able to complete the full peer review cycle of a paper during their residency, something that is unlikely in a 1-year experience.

After meeting the challenge of securing university funding for the program, we have not encountered many additional noteworthy challenges during its implementation. Recruitment of residents has been a minimal challenge, as pharmacy graduates are faced with an increasing discrepancy between residency stipends and entry-level salary offers. The prospect of committing 2 years to a residency experience can be a barrier; however, we have been successful in attracting well-qualified and enthusiastic residents each year. In fact, we received our greatest number of applications to date during the 2003 recruitment period. Another potential challenge could be identification of partners for site development activities during the second year of the residency. This problem has not arisen, however, most likely because a partnering site is not required to commit funding for the residency experience, only to

commit to pursue mechanisms through which the pharmaceutical care practice can be sustained after the residency is completed.

Conclusion

Taking responsibility for transformative leadership in pharmacy requires an individual to have a unique complement of knowledge, skills, and values. To our knowledge, the PCLRP is unique in its approach to fostering the capacity for leadership. It combines a traditional patient care residency experience with numerous activities that address leadership development in the areas of personal skills that establish influence, envisioning and implementing a new pharmaceutical care practice, teaching pharmacy students and medical residents, and facilitating professional advocacy.

This program represents one model for fostering leadership development in pharmacists. Residency programs have been a source of leadership in pharmacy for several decades, and with continued evaluation of the qualities required by practitioner-leaders in our profession, they will continue to serve in this role.

The authors declare no conflicts of interest or financial interests in any product or service mentioned in this article, including grants, employment, gifts, stock holdings, or honoraria.

The authors acknowledge Ila Harris, PharmD, for her contributions to the development of the residency experience and Marilyn Speedie, PhD, for her review and comments on initial drafts of this manuscript.

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