

Expanding a Successful Program to Increase the Number and Quality of Services in Community Pharmacy

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INTRODUCTION

The opportunities for the role of the pharmacist to evolve within the U.S. health care system are great. Legislation in recent years has brought about changes that have created these opportunities such as Medication Therapy Management (MTM) as part of the Medicare Modernization Act in 2004 (1). Opportunities for pharmacists continue to grow through the shift to a health care system that is based on patient outcomes and preventative care with passage of the Patient Protection and Affordable Care Act (Public Law 111-148) (2). These changes impact the pharmacist's role in all settings, especially in community pharmacies, where MTM has altered the way pharmacies do business and pharmacists approach their jobs (3,4,5). While many pharmacists are involved in offering these services, there exists a large population of pharmacists who have not engaged in these activities. When surveyed, the common barriers to pharmacists getting involved include time and understanding of the management or business elements of service initiation and provision (3,4,6).

As the pharmacy profession's role in the health care system adjusts to the needs and opportunities afforded, our role as educators is to train students to be prepared to jump into care provision in the current environment and equip them with skills necessary to help shape the future of the profession. Students may be exposed to patient care services such as immunizations and MTM in community pharmacies during their internship, Introductory Pharmacy Practice Experiences (IPPEs), or Advanced Pharmacy Practice Experiences (APPEs), but often do not see the behind-the-scenes management and financial elements of how to get these services started or keep them going. In addition, students may learn management concepts in didactic environments, but they are not often given the opportunity to apply these to real-life pharmacy since most required IPPEs and APPEs are patient care focused. For example, at The Ohio State University College of Pharmacy, the 9 months of required APPE rotations include 7 months with a patient care focus and two non-patient care elective experiences allowed. No management rotations are required in the APPEs or IPPEs.

The Ohio State University College of Pharmacy Partner for Promotion Program (OSU PFP) is an elective, longitudinal APPE focused in community pharmacy management, specifically direct patient care service development and implementation. The program was created and launched in 2005 with the primary purpose of enhancing student learning through application of management concepts in a real-life pharmacy setting, with additional benefits of supporting growth of sustainable patient care services in community pharmacy, and creating new APPE sites. Through the Partner for Promotion program, students can provide a link between the past, present, and future of pharmacy practice by assisting

current pharmacists with adding direct patient care services to dispensing services, helping keep those services running, and expanding upon them to continue to grow the pharmacist’s role in patient care.

The goals of the OSU PFP Program include:

- Create sustainable services for community pharmacies
- Enhance skills and confidence of students and preceptors to deliver and expand patient care services in community pharmacies
- Increase the number of quality community APPE sites

The PFP program has been successful at Ohio State since its inception showing the following impact:

- Engaging 111 students at 53 pharmacy sites in 16 Ohio counties and four states
- Demonstrating service sustainability in PFP pharmacies for approximately 50 percent of sites, with thousands of patients served
- Improvement of pharmacy student and preceptor perceived skills in developing and providing advanced patient care services in the community (7)
- Creating 41 new community APPE sites

With the success of the program at Ohio State, investigators considered the potential impact with expansion of the model to other colleges of pharmacy. This project, funded by the Community Pharmacy Foundation, aimed to test the transferability of the Partner for Promotion (PFP) program model to five additional colleges of pharmacy over a three-year period.

METHODS

The primary investigator had shared PFP with one institution prior to receipt of the funding from Community Pharmacy Foundation. A framework for this adoption was developed as part of this initial transfer and tested with this project (8). This framework is described in Table 1.

Table 1: A framework to guide sharing of educational models

1. Identify key personnel and resources
2. Set individual and collaborative goals and timelines
3. Involve college administration, licensing and/or legal departments
4. Establish and maintain open communication between faculty

For recruitment, a list of potential faculty and college partners was identified through networking with the Community Pharmacy Residency Program forums associated with the American Pharmacists Association and via discussions with national leaders in academic community pharmacy and national pharmacy organizations. Faculty and colleges were invited to participate with the goal of including colleges of pharmacy with varying demographics, including geography. Once the faculty partners were identified, the first and third step of the framework was embraced. Faculty worked with the primary investigator to determine key stakeholders at their colleges of pharmacy, universities, as well as in their local community that were necessary to engage for approval and logistics in adopting the PFP program.

Once approval was received, faculty connected their legal departments and research foundations with Ohio State’s Office of Sponsored Programs and Technology Commercialization and Knowledge Transfer Office in order to provide start-up funding through the Community Pharmacy Foundation funds and put in place contracts to allow for transfer of the PFP model materials.

The next step of adoption was training of faculty on use of the PFP model. A day and a half training and project kick-off meeting was held in August 2010 at The Ohio State University with a faculty attendee from each collaborating institution. This training event included a description of grant logistics, including deliverables expected from each institution, review and receipt of both hard copy and electronic model materials, and information on accessing materials and training modules online through a secure streaming server. A basic description of the modules is included in Table 2. The primary investigator guided faculty through case studies to practice using the materials as well as covered lessons learned from offering the program at Ohio State.

Table 2: Stepwise approach to developing patient care services description of modules

Module Title	Learning Objectives
Steps to Developing Patient-Centered Pharmacy Services	<ul style="list-style-type: none"> Identify a basic definition of pharmaceutical care Provide examples of successful patient care services in pharmacies nationally, regionally, and locally Review the steps for developing a pharmaceutical care service Discuss use of the stepwise process in implementing services in your pharmacy
Conducting a Needs Assessment (Why)	<ul style="list-style-type: none"> Review the structure and importance of the needs assessment process Identify the components of a SWOT analysis Describe potential barriers and methods to address barriers to pharmacy service implementation Explain how this process relates to selection of a pharmacy service
Conducting a Cost Analysis	<ul style="list-style-type: none"> Discuss considerations in pricing your patient-centered service Define elements to include in your cost analysis Review methods to conduct the analysis Introduce funding and reimbursement options
Defining your Patient-Centered Pharmacy Service (What)	<ul style="list-style-type: none"> Review methods to determine what patient-centered pharmacy service you will offer Identify features and benefits of your patient-centered pharmacy service Develop a mission statement, goals, and objectives for your patient-centered pharmacy service Review the implementation plan/timeline for your patient-centered pharmacy service Discuss how to create a formal one-page description of your service
Federal Regulations for Point-of-Care Testing	<ul style="list-style-type: none"> Describe the Clinical Laboratory Improvement Amendments of 1988 (CLIA) Define the purpose and requirements of the Occupational Safety and Health Administration (OSHA) Clarify what CLIA and OSHA mean to community pharmacy practitioners Review basic laboratory safety parameters

Management & Practice Plans (Who, How, & When)	<p>Define policies and procedures</p> <p>Understand the description and purpose of a policies and procedures document</p> <p>Discuss personnel and scheduling</p> <p>Identify regulatory issues that should be considered as a new advanced patient care service is implemented</p> <p>Consider the process for delivering patient care within your advanced patient care service</p> <p>Describe methods for effective communication and documentation within a practice</p>
Reimbursement for Advanced Patient Care Services	<p>Describe Medicare, Medicaid, and other payers</p> <p>Consider the impact of the Health Insurance Portability and Accountability Act of 1996 and the Medicare Prescription Drug Improvement and Modernization Act of 2003 on reimbursement</p> <p>Discuss current methods being used for reimbursement for pharmacy based services</p> <p>Discuss the Lewin Group Report and surveys describing provider and payer perspectives</p>
Assessing Impact of Your Patient-Centered Pharmacy Service	<p>Identify the importance of measuring the impact of advanced patient care services</p> <p>Discuss how to formulate a plan to track outcomes in a community pharmacy</p> <p>Review continuous quality improvement</p>
Marketing Your Patient-Centered Pharmacy Service	<p>Apply the marketing cycle to community pharmacy patient care services</p> <p>Discuss how to create a marketing plan</p> <p>Provide examples of promotional materials to market advanced patient care services</p> <p>Present various marketing strategies</p>

To encourage sustainability of the PFP program at these new institutions, the model was shared without directives on use. The intent of the primary investigator and Ohio State was for the faculty to work as a network to enhance education and practice development related to advanced patient care services in community pharmacies, with the Partner for Promotion program as the catalyst. This was facilitated through each institution individually offering their own version of the program, based on the PFP model, with ownership with the local college of pharmacy.

Feasibility and success of the transfer of the Partner for Promotion program to these five institutions was evaluated through annual survey reports submitted by each faculty partner via Qualtrics (www.qualtrics.com). Metrics used for evaluation included:

- Number of community pharmacy sites participating
- Number of students participating
- Number and type of financially sustainable, patient-centered services developed at community pharmacy sites
- Number of new and/or enhanced advanced pharmacy practice experience (APPE) sites
- Satisfaction with the PFP model materials and methods for training

- Suggestions for improvement to the materials and methods for training
- Amount of time spent with various aspects of integrating the model
- Perspective on the feasibility of adoption of the model at other colleges of pharmacy and in other community pharmacies

In order to assure faculty were supported through this project, quarterly online meetings were held, with individual consults and communications encouraged. Annually, the faculty group met at the American Pharmacists Association Annual Meeting in the spring of 2011, 2012, and 2013. In July 2013, the faculty group, including additional, newly engaged faculty at each institution as well as other key stakeholders were convened in Chicago, IL for a one and a half day meeting to set a formal mission and vision for the PFP program and determine strategic directions.

RESULTS

Five colleges of pharmacy offered the Partner for Promotion program through the grant period (2010-2013); four new colleges adopted the program, while the University of Utah continued and expanded the program. These partnering institutions and faculty were chosen based on a diversity of college structures and characteristics and included Chicago State University, Midwestern University-Glendale, Northeast Ohio Medical University, University of Utah, and West Virginia University (Table 3).

Table 3: Characteristics of colleges of pharmacy adopting Partner for Promotion program through 2013

College	Established [*]	Curricular Structure [#]	Estimated Class Size [#]	Private /Public [#]	Community Residency Program ^{&}	Faculty Contact	Years in Practice [^]
Chicago State University	2006	2-4 program	90	Public	No community residencies	Yolanda Hardy	14
Midwestern University - Glendale	1998	year round 3-year; 2 years pre-pharmacy	151	Private	Yes	Mike Rupp	35
Northeast Ohio Medical University	2005	2-4 program	81	Public	Yes	Tim Ulbrich	5
University of Utah	1946; 1917 medical school	3-4 program	60	Public	Yes	Brandon Jennings	7
West Virginia University	Approx. 1918	2-4 program	90	Public	Yes	Betsy Elswick	12

*College websites, #PharmCAS School Directory:

<http://www.pharmacas.org/collegesschools/directoryalphastate.htm>, &APhA Residency Directory:

<http://www.ashp.org/menu/Accreditation/ResidencyDirectory>, ^Varied sources including college websites,

LinkedIn

Each college site offered the program to 1-3 pharmacy sites partnered with 2 students per site annually. The PFP program was completed by 18 groups at these institutions during the study period. 36 students were engaged, with pharmacy practice residents also working with the program as participants and mentors. A service was developed at each site annually with 12/18 sites continuing to offer a service created through PFP, a greater than 60% rate of sustainability. See Table 4 for details.

Table 4: Number of pharmacies engaged and services sustained

College of Pharmacy	Number of Pharmacies Engaged in PFP 2009-2013	Number of Services Sustaining as of August 2013	College Offering Program in 2013-2014
Chicago State University	5	2	No, plans to restart in 2014-2015
Midwestern-Glendale	1	0	No, plans to restart in 2014-2015
Northeast Ohio Medical University (NEOMED)	4	4	Yes, 1 site
University of Utah	6	4	Yes, 1 student site, 3 resident sites
West Virginia University	2	2	Yes, 1 student site, 2 resident sites

Services created by students and community partners engaged in the Partner for Promotion program with these institutions were varied and included Medication Therapy Management (MTM), immunizations, wellness screenings and prevention services, disease-focused and education services, and medication nutrition (Table 5). One new APPE site was created; all other offerings of PFP occurred at existing APPE sites.

Table 5: Types of pharmacy services created through PFP at partnering colleges of pharmacy

College of Pharmacy	Types of Service Created
Chicago State University	<ul style="list-style-type: none"> • MTM services • Immunization services • Education services
Midwestern-Glendale	<ul style="list-style-type: none"> • Anticoagulation management service
Northeast Ohio Medical University (NEOMED)	<ul style="list-style-type: none"> • 2 MTM services • Veterinary compounding • Diabetes education
University of Utah	<ul style="list-style-type: none"> • 2 Immunization services • 2 Education programs • Compounding service • Preventative health screenings
West Virginia University	<ul style="list-style-type: none"> • Medical nutrition service • Tobacco cessation service

Faculty responses in survey reports indicated 100% found the PFP Model materials Very Useful (on a scale of 1-4, Not Useful – Very Useful) and reported making no changes to the training modules. Faculty

spent approximately 30-80 hours annually operating the program with resulting impacts on teaching and practice enhancement (Table 6). All five colleges plan to continue offering the PFP program as part of their curriculum and/or restarting the program with current or new faculty or departmental oversight, as applicable, which demonstrates the impact of the program locally and dedication of colleges to continue the program despite faculty turnover and workload shifts.

Table 6: Faculty statements regarding impact of PFP program

“From the start, I have been incredibly impressed with this program. It creates a learning environment that allows students and practitioners to learn together side-by-side in a ‘real-world’ setting. I have found that it is easy to use and has helped our institution to advance pharmacy practice in our state on a much larger scale than the clinical faculty can accomplish alone at their individual practice sites.”
“The students who participated in PFP at [our institution] felt the PFP program experience prepared them to take a vague, nebulous idea and transform it into a fully operationalized plan for implementing a new professional service from a busy community pharmacy. By applying equal emphasis to the practice model and the business model, the highly structured PFP program assists students and their community-based preceptors to bridge the chasm that often separates these important and sometimes conflicting considerations.”
“The Partner for Promotion Program has allowed our students to learn a step-wise approach to developing, implementing and evaluating a patient care project. Through this project, I have seen our students develop a new understanding of the opportunities a community pharmacist has to impact patient lives. I truly believe this program instills a thought process that allows the student to identify a need and develop a solution, regardless of the practice setting. These students are changing the practice of community pharmacy right in front of our eyes.”

DISCUSSION

This project demonstrated successful transfer and implementation of the Partner for Promotion model at five colleges of pharmacy beyond the originating institution. In a three-year period, 18 pharmacies were impacted, with 12 of the created services still being offered to patients. This program also guided 36 students through the process of developing and implementing a sustainable service in a community pharmacy. Faculty were satisfied with model materials, and all 5 colleges plan to continue to offer the Partner for Promotion program moving forward. Three colleges had faculty shifts in 2012; these colleges of pharmacy have allocated resources to the program so that it will be continued moving forward.

In testing the framework put forth (Table 1) through this project, it is evident the framework needs the addition of a step that involves formal training of the adopter of the materials. Additionally, the order put forth through the initial framework did not match the order of model sharing that occurred through expansion to the other colleges engaged in this project. Investigators propose a new framework for further expansion of the Partner for Promotion and other educational models between colleges of pharmacy in the future (Table 7).

Table 7: A framework (revised) to guide sharing of educational models

1. Identify key personnel and resources
2. Establish and maintain open communication between faculty
3. Involve college administration, licensing and/or legal departments
4. Set individual and collaborative goals and timelines
5. Schedule formal training on model materials
6. Formalize plans for outcomes assessment and ongoing collaboration among those using model

Faculty and investigators identified key elements for success of this project, which include integrity of the materials, easy online access of materials, regular communication among the network of faculty, and ownership of the materials to be used at each institution at the discretion of the faculty partner. Limitations include the selection of faculty. In this project, the primary investigator selected individuals with extensive experience in community practice and education; for future expansion to other colleges, faculty partners may present with different experiences that may impact the success of the program transfer and local use. This report provides an update 1-3 years after adoption at these institutions; time will tell the long-term sustainability of the model at these colleges as well as the impact on students, community partners, and faculty.

The Partner for Promotion program has grown significantly through this grant period, having expanded from an average of six pharmacies with 12 students per year at Ohio State to engage with 20 students and 10 pharmacies annually. The program has identified strategic directions moving forward, with a focus on continuing to expand the model to other colleges of pharmacy and providing a venue for community pharmacy faculty to network, learn, teach, and impact patient care in a coordinated way. It is hoped this sustainable model of training and service development can positively impact the profession and be a catalyst for establishing community pharmacy as a patient-centered access point of the health care system.

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