Self-care is an important component of the doctor of pharmacy curriculum due to the expanding nonprescription medication market and the high percentage of pharmacists practicing in community pharmacy. It can be incorporated as a freestanding course or integrated throughout the curriculum. This article presents the experiences of 2 junior faculty members at 2 different pharmacy schools who were charged with coordinating self-care instruction at their institutions. It discusses the “lessons learned” regarding teaching self-care effectively in an integrated curriculum and in a freestanding course.

Keywords: self-care, nonprescription medications, teaching

INTRODUCTION

Self-care education is a vital component within the doctor of pharmacy curriculum. The self-care movement has provided another opportunity for pharmacists to use their knowledge and expertise to benefit a large number of patients. Sixty percent of the medications consumed in the United States are nonprescription medications, and with more products undergoing the switch from prescription to nonprescription status, self-care competence becomes even more important for pharmacists. US Department of Labor statistics show an estimated 60% of pharmacists practice in a community pharmacy setting.¹ Thus, a majority of pharmacy graduates will need expertise in self-care.

The National Association of Boards of Pharmacy (NABP) has recognized this self-care trend and placed new emphasis on examining pharmacist candidates’ knowledge of and skills with nonprescription drugs and dietary supplements. In 2005, the NABP issued a statement that nonprescription and prescription medications would be weighted equally on the North American Pharmacist Licensure Examination (NAPLEX).²

Given the importance of self-care, it is paradoxical that junior faculty members are often placed in charge of the self-care curriculum with little if any preparation for filling such a role. To assist junior faculty members, this manuscript presents the experiences of 2 faculty members and discusses their “lessons learned” regarding teaching self-care effectively. One author was involved in integrating self-care throughout the doctor of pharmacy curriculum, while the second author was involved in coordinating a freestanding self-care course.

DEVELOPING A SELF-CARE CURRICULUM

The content domain of nonprescription medicines and products can be incorporated into a pharmacy curriculum in a variety of ways.³ Pharmacy school faculties may elect to have the curriculum delivered as a freestanding course or incorporated within existing, therapeutics courses over a number of semesters. The intent of the latter is to demonstrate how nonprescription drug therapy is integrated into overall drug therapy. Faculty members who elect to have a freestanding course may make it part of the core curriculum or a professional elective. Both approaches to teaching self-care (ie, freestanding course and integrated into the curriculum) provide advantages and inherent challenges.

In designing a self-care curriculum, faculty members must decide what content area(s) to cover in the amount of time allocated. As with any area of the pharmacy curriculum, it is impossible to cover every self-care topic, even if designing a freestanding course. One way to plan content areas is to refer to the frequently used nonprescription drug categories. A question the instructor might ask is, “What is the likelihood that a pharmacist will encounter this problem?” Certainly, those areas encountered most often gain top priority. Second, the amount of content to include in the instruction must be determined. This will be determined by the available time and whether aspects of the content area are covered elsewhere in the curriculum.
In some instances, a “hole” in the curriculum may be identified and the obvious choice would be to start by filling the “hole.” For example, in the curriculum at St. John’s University College of Pharmacy and Allied Health Professions home diagnostic testing was not covered in depth in any existing course. Since this content required only a basic knowledge of disease and therapeutics, it was added to an introductory course in pharmaceutical care given in the first-professional year and was used to illustrate the role of the pharmacist in disease prevention and screening and the importance of patient education.

Self-care instruction can be separated into 2 basic categories. The first being knowledge of common self-treated conditions and medications available to treat these conditions. The second being the skills necessary to perform an appropriate patient assessment and triage, make a product recommendation, and provide patient education. This combination of knowledge and skills is not essentially different than what would be required to perform any task as a competent pharmacist. Regardless of whether self-care is a free-standing course or is integrated throughout the curriculum, it is essential to emphasize both the knowledge and skills needed to effectively assist patients. A variety of techniques (eg, didactic lecture, active learning, role-playing, case studies) should be utilized in the classroom and laboratory setting to help students gain the knowledge and skills they will need in practice.

INTEGRATED APPROACH

At St. John’s University College of Pharmacy and Allied Health Professions, self-care instruction is integrated into the professional curriculum. Students are introduced to self-care concepts in spring semester of the first professional year in their Introduction to Pharmaceutical Care course. In their second- and third-professional years, students take a 30 credit-hour course, Drugs and Disease, which integrates pathophysiology, pharmacology, medicinal chemistry, and therapeutics. Generally, the content areas are classified by organ system or disease process (eg, “Drugs and Infectious Diseases,” “Drugs and Disease of the Endocrine and Reproductive Systems,” “Drugs and Disease of the Gastrointestinal Tract”). The relevant topics involving self-care are covered in their respective block (eg, self-care for diarrhea and constipation is covered in “Drugs and Disease of the Gastrointestinal System”). Self-care is also incorporated into the pharmacy practice laboratory (which runs simultaneously to Drugs and Disease during the second- and third-professional years) in the form of problem-based scenarios in which a student is expected to assess a patient’s symptoms, make recommendations, and provide patient education. Additional self-care topics are incorporated into the course Case Studies, taught in the spring semester of the fourth-professional year. Vitamins, minerals, dietary supplements, and herbal products are taught in a required course entitled Nutraceuticals, which is also taught in the spring of the fourth-professional year. Further, a 3-credit elective in nonprescription medications is offered to students in their last semester before graduation. Typically, however, the elective course can only accommodate about 20% of the students due to space and resource limitations.

Given the many misconceptions and stereotypes associated with self-care, the challenge of integrating it into the pharmacy curriculum may be somewhat intimidating for a junior faculty member. Some faculty members may be under the impression that self-care is an “easy” topic and that anyone who is a pharmacist can teach it. Or they may believe students can simply attain the knowledge and skills through practice and/or during the completion of the clinical clerkships. Depending on the extent of their education, professional expertise, and area of practice interest, faculty members have different opinions about self-care and its importance in the curriculum. These opinions vary greatly from institution to institution. Another challenge arises when faculty members are asked (or told) to teach a course on a topic about which they do not feel confident, and as a result, they may place less emphasis on lesson preparation for those courses. In the situation of integrated instruction in therapeutics, a distinct challenge exists to ensure that adequate coverage be devoted to self-care.

As a tenure-track junior faculty member, the first author of this paper was challenged with examining the professional curriculum for areas where self-care instruction could be incorporated and used this experience as an opportunity for scholarship. The place to begin is to examine where self-care is being taught, how effective the instruction is, and if necessary, identify ways to improve the instruction and student outcomes. At the beginning of the first author’s tenure at St. John’s, she was charged with leading a team to develop and coordinate a first-professional year course titled Introduction to Pharmaceutical Care. Purposely, one 2-hour lecture was devoted to the pharmacist’s role in self-care, with the goal that students could realize the importance of this subject matter in their future careers. Other units of instruction included how to perform patient triage and symptom assessment using the “PQRSTA” method (later reconfigured to QuEST/Scholar4,5) and patient communication (Tables 1 and 2). One other lecture period was devoted to an interactive workshop in which students’ ability to assess a patient’s symptom(s) using this method was evaluated. This specific assignment has since been changed because it was determined that first-year students lacked
the knowledge necessary to learn what was intended. Specifically, it is challenging to instruct a student to perform triage and assessment if they have little knowledge of symptoms and their interpretation. The lesson learned by the instructor was that it is difficult to develop students’ skills without them first acquiring the necessary background knowledge. This has become an important discussion point at a national level among faculty members involved in self-care instruction, ie, where and when is self-care instruction best incorporated into the curriculum. Currently, in this course, the interactive workshop focuses on patient communication and counseling skills development. Although it does not specifically address self-care, counseling is an essential skill to providing adequate pharmacist-assisted self-care. Students also receive instruction about home diagnostic products in this course. This content area has been incorporated here because it was observed that when self-care is integrated, topics that do not easily “fit” into an organ system or disease process may get overlooked. The introductory course was an obvious fit for this topic area.

At St. John’s University, students complete nine 4-week advanced pharmacy practice experiences (APPEs) and practicing pharmacists and faculty members serve as preceptors for students on these rotations. One required community pharmacy experience and one required ambulatory care experience provide the opportunity for student self-care knowledge growth and skill development. The first author has had the opportunity to establish self-care experiences for her APPE and was asked for input into the standards for the experience in community pharmacy and ambulatory care. Early in her experience, this author developed a self-care documentation form to be used by students during the APPE. Later this form was incorporated into the community pharmacy experiential manual and the pharmacy practice laboratory course (Appendix 1). During the experience, students are instructed to dedicate a portion of their time in the self-care aisle and take it upon themselves to approach patients who are reading labels and making decisions about self-care products. The intent is for the student to perform an assessment and then document the outcome. During a 4-week rotation in community pharmacy or ambulatory care, it is recommended that students perform a minimum of 10 self-care interventions. This exercise has been a success based on student feedback and little adjustment has been made since its inception 6 years ago. Frequently, students are initially reluctant to approach people in the aisle. However, once they interact with patients, they realize the experience is usually positive and appreciated by the patient. This exercise reinforces the idea that patients need help making self-care decisions, but are often hesitant to approach a “busy” pharmacist to ask a question.

The pharmacy practice laboratory is the last point in the curriculum at which the first author has had the opportunity to foster increased exposure to self-care. The first step to increase exposure was to volunteer to serve on the laboratory planning committee. It is important for junior faculty members to take the initiative to learn how decisions are made for the professional curriculum. There may be 1 or several curriculum committees and serving on these committees is the best way to communicate and negotiate important changes that need to be made. Of course, when first starting out, it may be difficult for the junior faculty member to have his/her voice heard, and the intimidation factor is always present for junior faculty members. But with time these hurdles can be overcome, especially when the intention is to improve the education of the students and evidence of why the change is needed can be presented.

The pharmacy practice laboratory coincides with Drugs and Disease blocks throughout the second-professional year and for the first semester of the third-professional year. Students rotate through the laboratory every 3 weeks (the other 2 weeks are spent in basic science applications and dispensing/compounding). The laboratory session is 3 hours in duration and the students complete a patient assessment exercise, process 2 prescriptions, and participate in a mock interactive scenario of a patient seeking self-care treatment. The student is required to triage and assess the patient, make a recommendation, and provide the necessary patient education. The self-care documentation form is utilized in this exercise as well (Appendix 1). The practice laboratory can be another opportunity that

---

**Table 1. QuEST<sup>4</sup> Mnemonic for Teaching Pharmacy Students Patient Counseling Skills**

<table>
<thead>
<tr>
<th>Qu</th>
<th>Quickly and accurately assess the patient.</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Establish that the patient is an appropriate self-care candidate.</td>
</tr>
<tr>
<td>S</td>
<td>Suggest appropriate self-care strategies.</td>
</tr>
<tr>
<td>T</td>
<td>Talk with the patient.</td>
</tr>
</tbody>
</table>

---

**Table 2. SCHOLAR<sup>5</sup> Mnemonic for Teaching Pharmacy Students Patient Triage and Symptom Assessment Skills**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>What are the main and associated symptoms?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics</td>
<td>What is the situation like? Is it changing?</td>
</tr>
<tr>
<td>History</td>
<td>What has been done so far?</td>
</tr>
<tr>
<td>Onset</td>
<td>When did it start?</td>
</tr>
<tr>
<td>Location</td>
<td>Where is the problem?</td>
</tr>
<tr>
<td>Aggravating factors</td>
<td>What makes it worse?</td>
</tr>
<tr>
<td>Remitting factors</td>
<td>What makes it better?</td>
</tr>
</tbody>
</table>
could easily be overlooked when incorporating self-care into the curriculum. One needs to ensure that the content areas are covered didactically and that the students are gaining experiences necessary for applying the knowledge in the laboratory environment. Finding the time to incorporate a new exercise was challenging at first, but as students and faculty members have become accustomed to it, it is working out well. When a new application is added, it is important to allow time for adjustment and to always be looking for ways to improve upon it. Ultimately, for an exercise to be successful, it has to meet the curriculum goals, the needs of faculty members/instructors and the students, and “fit” well in the course.

Although many significant changes have been made to improve self-care education in the St. John’s curriculum, the author’s goal is that the emphasis on self-care will expand even further in the future. Promoting the importance of self-care and its significance to the profession is a challenge to those faculty members who instruct self-care, and identifying the time and the space in an already overloaded curriculum remains a hurdle. The challenge of integrating self-care content into the curriculum (eg, didactic, laboratory, clerkship) is only the first step. In each area it is necessary to evaluate the success or failure of an exercise or assignment periodically to learn if the desired objectives are accomplished. Utilizing feedback and constructive criticism from enrolled students, preceptors, and fellow faculty members is essential in making continual improvements so that learning exercises or assignments meet everyone’s needs and curricular goals.

**FREESTANDING APPROACH**

At West Virginia University School of Pharmacy, the majority of self-care is taught in a 3-credit hour, core curriculum course in the fall semester of the third-professional year. The course focuses upon patient assessment, triage, and therapeutics of nonprescription drugs. The pathophysiology of involved disease states is taught in the *Pathophysiology and Therapeutics* sequence in the second- and third-professional years and, if necessary, reviewed only briefly in the nonprescription drug course. Three sessions, each 3 hours in length, in *Pharmaceutical Care Laboratory* coincide with the didactic course in self-care. The laboratories emphasize skill development, incorporate product demonstrations, and use role-playing activities and case studies. After the second author and another junior faculty member were named co-coordinators of this course, they reviewed the existing syllabus and topic schedule. For the first offering, only minor changes were made. Junior faculty members should be cautious about making too many changes at once as this can be overwhelming.

At the end of the semester, the outcome was reviewed. Student evaluations and test scores were reviewed to identify areas that could be improved in the subsequent offering. Steadily, course improvements were implemented. Over the past few years, the instructors have identified 4 main problems: multiple instructors; time constraints; student inability to apply knowledge to patients; and student inability to identify brand name products. A number of changes have been implemented to resolve these issues.

To improve the consistency of lectures and continuity within the curriculum, the number of non-pharmacist instructors was reduced. One of the course coordinators developed and taught lectures to replace those taught by the previous instructors. The large increase in teaching load in a short time period proved to be quite challenging and this approach is not entirely advisable. Instead, incremental reduction in the number of instructors is suggested. However, having primarily pharmacists teaching the course insured that the students not only learned the content but content applicability as well.

To address time constraints, the instructors reviewed the current topics and decided what nonprescription drug content areas pharmacists were most likely to encounter in practice. For example, the lecture on ostomy care products was removed and replaced with an additional lecture on cough/cold products. The lecture on nausea and vomiting was changed to a self-learning activity with some laboratory time for product review and case studies. The most important content areas were identified and prioritized and students were given a framework for self-learning so they could gain additional knowledge in those areas not covered in the course.

To help students apply self-care knowledge to patients, the instructors introduced the QuEST/Scholar process. In one of the first lectures of the course, students are introduced to this process. Throughout the course, many lectures are organized using this process and students use it to evaluate patient cases in class and in the laboratory sessions. Further, role-playing activities are incorporated into the laboratory sessions. Toward the end of the semester, students must show proficiency in assessing and counseling self-treating patients by performing a mock patient interaction in the school’s model pharmacy. During this interaction, a student plays the pharmacist and one of the instructors plays the patient. Students are evaluated by the patient-instructor on their communication skills, patient assessment skills, ability to select an appropriate product, and patient counseling skills. The assessment form is included in Appendix 2. Although this activity is time intensive for the instructor, it is valuable to the students and allows for individual assessment of skills related to self-care.

---

*American Journal of Pharmaceutical Education 2006; 70 (6) Article 142.*
The instructors have implemented a self-learning activity using Sigler's Nonprescription Drug Cards. Each card contains the trade name, active ingredients, dosage forms, approved indications and dosage ranges, pharmacology, contraindications and precautions, adverse effects, and patient evaluation and consultation information. Over 100 nonprescription products are included in the set. Students are required to purchase the drug card set. Throughout the semester, students are assigned specific products corresponding with the material they are learning in the Nonprescription Drug course. Outdated cards are brought to the attention of the students and they are reminded to always stay up-to-date on product reformulations and product line extensions. Self-learning is utilized to master the material presented on the cards. Student knowledge is then assessed using case-based quizzes which require the student to select an appropriate product given a patient situation. There are 5 quizzes throughout the semester. This activity has helped students with product recognition. Other activities that have helped improve product recognition are bringing the actual products to class as “show and tell” and changing the laboratory exercises to incorporate more “hands-on activities” with actual products as opposed to paper cases alone.

For those who are new to teaching and are given the opportunity to teach an existing, freestanding nonprescription course, the following advice is offered:

- Do not attempt to change everything at once.
- Each year, identify a few key changes that are needed; make the changes and assess their effectiveness at achieving the overall course objectives. Assessment methods may include reviewing student performance on examinations and skill-based exercises (e.g., role-playing, case studies) and student evaluations of the course.
- Do not be afraid to fail. If a developed and implemented assignment or activity does not work, identify reasons for the failure, modify it, and try it again.
- Network with other faculty members engaged in self-care instruction at other institutions by participating in conferences such as Nonprescription Medicines Academy (NMA) and the American Pharmacists Association Self-care Institute.

OPPORTUNITIES FOR SCHOLARSHIP

For those junior faculty members on either a tenure or nontenure clinical track, an interest in self-care can create opportunities for scholarship. Presently, there is a need for development and documentation of self-care innovations. Many resources and forums exist for self-care scholarship to be presented and shared. Other articles in this supplement review some of these resources and opportunities including the Nonprescription Medicines Academy (NMA) and the American Pharmacists Association Self-care Institute. These forums have served the authors well and provide other scholarship opportunities including authorship of this manuscript.

SUMMARY

Self-care can be successfully taught to doctor of pharmacy students through a variety of techniques. Junior faculty members charged with self-care instruction should seize the opportunity but be cautious about making too many changes at once. Determine what content should be incorporated based on the current curriculum and the needs of the students and the faculty members. Fill in gaps where needed, expand time spent on the most commonly encountered conditions if needed, and remove conditions that the typical pharmacist is unlikely to encounter if time is a constraint (and it almost always is). Try new teaching and assessment techniques to improve student learning. Assess student learning of self-care regularly and revise the content and/or teaching techniques as needed. Share self-care teaching innovations with peers by participating in scholarly activities. The authors have found self-care instruction to be a rewarding part of their faculty experiences and encourage other faculty members to engage in self-care instruction to improve students’ knowledge and skills in this important practice area.

REFERENCES

Appendix 1.

Self-Care Intervention Documentation Form

| Pharmacist’s Name: ____________________________ | Date: ____________ |

“Who is the product for?” ☐ Self ☐ Child ☐ Other: ____________________________

Sex: M ☐ F ☐ Pregnant/ lactating? Y ☐ N ☐ Age of patient: ____________________________

Condition: “What are you treating?”

☐ Cough ☐ Congestion ☐ Allergy ☐ Diarrhea ☐ Constipation
☐ Heartburn ☐ Pain ☐ Fever ☐ Dermatologic ☐ Ophthalmologic
☐ Nutritional supplementation ☐ Other: ____________________________

PMH: “What medical conditions do you have?”

☐ HTN ☐ Hyperlipidemia ☐ Heart Disease ☐ Asthma/COPD
☐ Thyroid ☐ Diabetes ☐ BPH ☐ Ulcers/ GERD
☐ Glaucoma ☐ Liver disease ☐ Kidney disease
☐ Other: ____________________________

“What medications are you currently taking?”

Symptom Analysis:

P: What brought the condition on?
Q: Have patient describe the pain/ cough/ condition
R: What have you tried to treat the condition?
S: Where is it? How severe is it? On a scale of 1-10...
T: When did it start? How long have you had it? How often does it occur? How long does it last?
A: What else happens? Any other symptoms?

P: ____________________________
Q: ____________________________
R: ____________________________
S: ____________________________
T: ____________________________
A: ____________________________

Outcome:

☐ Self-limiting condition; no treatment necessary
☐ Counseled patient to seek physician consultation
☐ Made OTC Recommendation ☐ Original product ☐ Alternative product

Explain: (Include name of product, dose, special instructions, and warnings)

______________________________
______________________________
Patient Consultation Evaluation Form

<table>
<thead>
<tr>
<th>Student</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Clear introduction. (max 2 points)  
   2

2. Asked appropriate questions. Clarified specific symptom/problem. (max 3 pts)  
   1  2  3

3. Obtained all necessary information to make an appropriate recommendation.  
   - Current signs and symptoms  
   - Duration of symptoms  
   - Past treatments, including adherence and outcome  
   - Medical conditions  
   - Medications – prescription and nonprescription  
   - Allergies  
   2  3  4  5  6

4. Accurately assessed patient’s needs. (max 3 pts)  
   1  2  3

5. Made appropriate recommendation. (max 3 pts)  
   1  2  3

6. Counseled patient on recommended therapy.  
   - Drug name  
   - Dose and schedule  
   - Reason for use (i.e. what product does)  
   - Appropriate duration of use  
   - Common adverse effects and how to manage  
   - Expected response time  
   - What to do if symptoms persist or worsen  
   - Any special instructions or warnings necessary  
   3  4  5  6  7

7. Appropriately communicated recommendation to patient. Was clear, concise, and used appropriate language. (max 2 pts)  
   1  2

8. Established follow-up. (max 1 pt)  
   1

9. Used good communication skills. (open-ended questions, active listening, use of appropriate language, open posture, etc.) (max 3 pts)  
   1  2  3

Comments: