

## STATEMENTS

### The Pharmacist as Educator: Implications for Practice and Education

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The practice of pharmacy is occurring in an information-rich environment in which technology affords access to more information than ever before and dispensing technologies are making it easier for the pharmacist to be acknowledged for the knowledge they impart in facilitating positive patient outcomes. This knowledge is often imparted to patients or other allied health professionals, and it is this transfer of knowledge that should be expanded for pharmacists to transition into the role of educators. This manuscript focuses on the reasons and implications of developing a pharmacist-as-educator model.

**Keywords:** education, curriculum, pharmacy practice

#### INTRODUCTION

The implementation of pharmaceutical care within pharmacy practice has increased steadily since it was first proposed. It is my perspective, however, that while pharmaceutical care has changed the practice of pharmacy, there are more changes yet to come. The changes to practice and the increasing prominence of technology and databases in health care have placed the pharmacist in an information-rich environment in which acquiring knowledge shares importance with what is accomplished with that knowledge. Currently that knowledge is shared via counseling the patient or working with other health care professionals to optimize patient outcomes. I believe the next step in the evolving role of the pharmacist is to move beyond patient counseling and assume the role of educator within the healthcare environment.

It is time to consider whether the next step for the pharmacist is not just to talk to patients and other health professionals, but to educate them and ensure that learning has taken place. Some would argue that changing the role of the pharmacist to that of educator is merely an exercise in semantics and that patient counseling and patient education are the same. This represents an excellent starting point in changing to a new paradigm. This manuscript focuses on the sharing-of-knowledge role of the pharmacist, but presents the case that the next step for the pharmacist is to assume the role of educator—a teacher within the healthcare system.

#### Pharmacist as Educator

What is education? Education is a process of teaching and learning whereby, if the knowledge is conveyed effectively, learning occurs at some level, and the knowledge acquired is assessed by some means to determine the degree to which learning has taken place. Within this context, teaching can be defined as "...a system of actions intended to induce learning," while learning can be defined as a change in performance or performance potential with the intent of providing the learner with the capability to perform actions that he or she had not previously accomplished.<sup>1,2</sup> Each of us in pharmacy education has working examples of education: both the experiences we have in the classroom and those of our colleagues.

By redefining the pharmacist as an educator, I am not suggesting that we require registered pharmacists to have teaching certificates. I do believe, however, that the basics of teaching and learning can be taught to pharmacists and pharmacy students alike to foster an appreciation of their role as educators within the healthcare system and to take the practice of pharmacy to the next level.

The level of understanding of education I am proposing would be introductory and focus on such concepts as teaching and learning, developing educational objectives, studying various teaching methods, examining differences in learning styles, understanding the principles of instruction, and learning the basics of evaluation. This is a basic list that could be fleshed out to include a variety of concepts regarding educational processes with the depth of the topics determined by the amount of space within a curriculum that is available or the types of professional development programs available to practicing pharmacists.

Clearly a distinction between counseling and education must be made before continuing with this proposed

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change. The difference between counseling and educating is that counseling represents only a starting point within the educational process in that information is conveyed and understanding is verified, but not to the extent that these occur in educating. It is my intent with this manuscript to stimulate a discussion regarding the implications of the pharmacist as educator and how this would impact pharmacy practice, continuing pharmacy education and certificate programs, and finally, pharmacy education. It is not my intention to downplay in any way the importance of patient counseling, but instead to draw attention to what I believe to be the next level in pharmacists' interactions with patients and other health professionals.

### **Implications for Pharmacy Practice**

Pharmacists offer patient counseling or patient education and, following the provision of information, ask the patient if he or she understood what was discussed. This conveyance of information does not represent education, although it is often called "patient education" within the literature. The change I am proposing is to expand upon the provision of information, how it is done, and how learning is assessed. There are some settings in which pharmacists are already conducting more structured teaching, such as in diabetes education, asthma education and management, and anticoagulation programs. However, these programs represent a small percentage of patient encounters compared with the much larger percentage of encounters in which counseling as we know it takes place.

Consider a patient who arrives to pick up his or her medications for hypertension. What if, instead of focusing on patient counseling, the encounter was framed around educational objectives, the teaching of those objectives, and determining whether learning took place? This would represent a different dynamic between the pharmacist and the patient and require that the pharmacist understand some basic educational principles in order to be effective.

A second example of an opportunity to educate a patient is the encounter in which no prescription medication is dispensed. Pharmacists interact with patients all the time without dispensing medications by assisting them in the appropriate selection of nonprescription products and educating the patient regarding self-care issues. The ability to educate as well as to verify patient understanding could be very beneficial in these types of pharmacist-patient interactions and facilitate better health outcomes.

A third example of an opportunity to educate is when a pharmacist performs community service by providing a program to various groups such as church groups, par-

ent-teacher associations, or local rotary clubs. Again, there is no dispensing of medication, but there is the impartation of information. But what has been done to prepare the pharmacist to provide such a presentation to a large number of individuals seeking to learn? Consider how valuable a baseline understanding of general educational principles would be with respect to the development of the presentation objectives, the development of the presentation materials (slides, handouts, etc), the delivery of the presentation, and finally the ability to understand whether learning took place. This example becomes more common when you include pharmacists educating other health professionals in rounds, seminars, and other semiformal or formal presentations, and could also include pharmacy students engaged in various aspects of their experiential education.

### **Implications for Continuing Pharmaceutical Education and Certificate Programs**

The Accreditation Council for Pharmacy Education has specific guidelines for continuing education and certificate programs. Within live continuing education programs, presenters are required to list objectives, provide content and instruction based on the objectives, and then assess understanding. The expectation is that the provider of continuing education will adhere to some basic or foundational tenets of education when providing information to practitioners. Within certificate programs there is more assessment required, as well as both content and abilities-based components to the program. In this respect, certificate programs are much closer to the traditional education model than continuing professional education. In either case, why should the provision of continuing education be any different from how a pharmacist interacts with patients or other healthcare professionals? The answer is it should not.

Both continuing education and certificate programs provide unique opportunities to affect change needed to create a pharmacist-as-educator model. It provides an opportunity for the presenters at these programs to model effective educational practices that could be used by the pharmacist at a later date. Many individuals reading this article can remember watching someone teach and thinking how much he or she would like to teach that way as well. The key is that if the program is done well, then it can serve as a model for effective educational practices and impact patient care and outcomes above and beyond the content being discussed.

Another opportunity is to change what is taught within continuing education programs and to teach educational practices within continuing education programs. I am not suggesting that the programs currently offered

be discontinued, but instead that programs about education be added. These programs could teach basic educational principles such as educational objectives, types of instruction and reinforcement, learning styles, an overview on assessment, or other general topics. Certificate programs could provide more in-depth experience regarding educational principles and afford pharmacists the opportunity to develop a deeper understanding of educational principles that can then be applied for the betterment of health outcomes and shared with colleagues with whom they work. In essence, it is about providing education about education to pharmacists.

Finally, pharmacists have long sought the opportunity to get reimbursed for cognitive services. Perhaps the pharmacist-as-educator model can help facilitate that through a better evolved model of education to the patient based upon sound teaching and learning principles. Consider matching the data on patient outcomes to the mapping of educational objectives, the information provided, and the evaluation of learning. This link demonstrates to payers the value of educational interventions and provides further reasons for pharmacists to be reimbursed for cognitive services. This is not a new concept, but linking outcomes to educational processes is, and this could be presented within colleges and schools of pharmacy as part of the curriculum.

### **Implications for Pharmacy Education**

The consideration of the pharmacist as educator has several implications for pharmacy education. If we consider communication (ie, information conveyance and listening) as a first step in the educational process, then pharmacy education has already taken the first steps towards developing a pharmacist-as-educator model. Two specific challenges exist to providing education on education within a college or school of pharmacy, although I am sure others could be identified. These challenges are how to teach the educational content and where within the curriculum it should be placed.

The teaching of educational principles depends on whether any member of the faculty has this area of expertise and is willing to teach about education. The development of faculty members is not always predicated on coursework about educational processes, so a large number of faculty members in colleges and schools of pharmacy who are wonderful teachers may have no formal educational background. One possible solution is to work with the school of education, if one is available at your institution, and have their faculty members present the topics. Another ready pool of potential instructors are the graduate students within education programs who may see this as an opportunity

to earn extra money and gain valuable teaching experience. Within the curriculum, one possible place to teach these concepts is within a communications or dispensing class.

The teaching of communications can often be found within a free-standing course, as well as integrated into various courses or skills-and-abilities laboratories (dispensing, objective-structured clinical examination (OSCE) exercises, etc). Communications abilities are also addressed within various programs via student presentations and through writing assignments or writing-across-the-curriculum programs. The question is how far these opportunities go in preparing the student for his or her role as an educator within the healthcare system.

Consider the example of student presentations. Are the requirements and assessment based upon educational principles or presentation skills? Within some of my courses, students are required to present a mini-lecture complete with educational objectives and assessment questions for an upcoming examination. The act of writing objectives and test questions is not by itself going to create an educator, but it at least creates an awareness regarding education and possible new ways to consider patient education.

We will never make pharmacy students into educators, nor do we have the space within our curricula for significant coursework on educational principles. But some effort should be made to provide educational principles and to provide students with an awareness of education and its importance in his or her role as a pharmacist educator. The graduates of our programs will not only educate patients and other health professionals, but will offer continuing education programs and certificate programs, and possibly pursue graduate education and return to schools of pharmacy as faculty members.

Within pharmacy education there are significant concerns about the current faculty shortage and the compounding of the shortage by the creation of new schools of pharmacy. An unpublished study by the American Association of Colleges of Pharmacy referenced by the American Foundation on Pharmaceutical Education indicated that among 67 responding colleges and schools of pharmacy, there were 417 vacant teaching positions, the most being positions within pharmacy practice and the pharmaceutical sciences.<sup>3</sup>

Perhaps exposing students to educational principles as they progress through a program of study will help track some into graduate school and ultimately into faculty positions within pharmacy education. In addition, for those students entering graduate school, an exposure to

educational principles could stimulate future faculty members to learn about teaching and learn more than has historically been taught within graduate education programs.

One interesting consideration of including education programs within the curriculum for pharmacy students is the impact it could have on the faculty. It could facilitate better feedback to the faculty members via course and faculty evaluations since the students would have a better understanding of the educational process. In this respect, course and faculty evaluations could represent a more substantial evaluation of the educational processes than has historically been the case.

## CONCLUSIONS

The idea of the pharmacist as educator represents interesting and unique opportunities for practice, for the

education of practicing pharmacists, and for pharmacy education. The implementation of this would not be easy and the application of an educational model in every patient encounter may not be feasible. But the pharmacist-as-educator model may well be the next step on the pharmaceutical care continuum. As we consider our role within health care, being an educator seems to fit best with how the practice of pharmacy has evolved.

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