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Opinion

Building a team to fight diabetes: Pharmacy students' perceptions about serving as patient navigators ☆

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Abstract

To describe pharmacy students' changes in self-perceptions during a program that introduces them to working as a "patient navigator" with patients who have diabetes. Pharmacy students were trained during their Advanced Pharmacy Practice Experience (APPE) as part of a continuing study of patients in an urban clinic. The interdisciplinary program combines hands-on experience in primary care with behavioral knowledge including cultural competency. Training by pharmacy and social science faculty included the use of lectures, video, and role-playing. These applied clinical education, motivational interviewing, and a well-tested behavioral model of health beliefs. The students then observed and held direct, supervised interactions with patients. To assess their experience, students completed surveys at the beginning and end of the five-week rotations. This article discusses responses from 34 students (2009–2012) and compares changes in students' perceptions after the experience. Students' self-perceptions of their knowledge or abilities in four areas of patient self-management were significantly more positive upon completion: providing diabetes education, setting self-management goals, identifying barriers to treatment, and understanding patients' health beliefs and attitudes. Students felt that the experience was useful for their professional development and future practice. Exposing students to skills as patient navigators can have a positive effect on their confidence about assisting with diabetes management. Hands-on application of behavioral techniques and cultural competence within a primary care-based APPE can provide a promising learning experience. This is meaningful for today's pharmacists, who will function in a multicultural environment, in which diabetes has a powerful effect on public health.

Keywords: Pharmacy students; Diabetes; Patient navigators; Behavioral models

Introduction

It is well-known that diabetes mellitus is a serious epidemic in the United States. The condition is the seventh leading cause of death in the nation, affecting over 25 million Americans.[1] Successfully managing diabetes requires consistent monitoring of blood glucose levels and strict adherence to drug treatment regimens. However, estimates show that one-third to one-half of diabetes patients do not adhere to their physician-prescribed

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treatment regimens,[2] with potential for serious medical complications, including heart disease, eye problems, diabetic kidney diseases, gastroparesis, gastrointestinal (GI) problems, and foot and wound care problems. There is a complex web of social factors (such as low income, low literacy, language barriers, poor housing, and limited transportation) and behavioral factors (such as stress and depression) that create barriers to diabetes treatment adherence. Specialized behavioral training for providers (including pharmacists, but also physicians, nurses, and other clinicians) can be effective in helping patients manage chronic illness. Behavioral medicine includes topics that are integral to human behaviors, such as attitudes, motivation, social norms, perceived behavioral control, culture, and values. These become tools for communicating with patients about factors affecting their health outcomes, including lifestyle, stress, and health beliefs.[3]

Experiential education and disease state management have expanded in the pharmacy curriculum, including some programs that provide students an opportunity to apply the concepts to interactions with patients.[4–8] This article describes a program that integrates experiential education with behavioral training through the collaboration of three faculty members in pharmacy, social science, and family medicine. As part of a continuing intervention study for patients with diabetes, pharmacy students are exposed to acting as "patient navigators" by (1) learning the Common Sense Model (CSM), a well-tested behavioral model of health beliefs, (2) utilizing this knowledge through observation and direct (while supervised) interactions with patients with diabetes, which help patients set feasible goals for diabetes self-management, and (3) expanding their cultural competency in caring for an underserved population. Results are presented of a pre- and post-survey, measuring students' responses to their experiences in observing and educating patients, understanding patients' health beliefs, identifying barriers to treatment, and helping patients set goals.

Background

Pharmacists and care for chronic illnesses

Care for the complexities and long-term nature of chronic illness requires more than prescribing treatment. Patients' self-management is critical in determining treatment outcomes, and patients often need additional counseling from their medical care providers in order to achieve this. Research shows that, too often, physicians either do not have the time or are not trained to provide this type of care.[9–12] Pharmacists trained in the behavioral aspects of care can benefit patients who struggle to self-manage their condition, by intervening in drug regimens,[13–19] facilitating goal-setting for both drug therapy and lifestyle changes,[14,15,20] providing lifestyle counseling on ways to supplement drug regimens,[13] and providing self-management advice.[21] Successful integration of pharmacists into patients' primary care team, as experts in both pharmaceutical and behavioral aspects of care, can fortify the quality of care for patients with chronic illness.

As a first step, pharmacists-in-training can learn from a direct experience in primary care. Face-to-face interaction with patients and reflecting on these interactions through activities such as keeping a journal about their experiences are valuable ways to help students improve their diabetes-related communication with patients.[22–25] Several pharmacy training programs incorporate both direct patient communication and behavioral training,[3,25–29] which may be particularly important in diabetes care. One way to achieve this is through creating a patient navigator program focused on diabetes patients. A "patient navigator" is a staff or volunteer position (widely used in cancer treatment), where the navigator's role is to help patients, especially in underserved populations, overcome barriers to care by navigating the complexities of the health care system.[30,31] For patients with diabetes, pharmacy students can learn to serve as hands-on "coaches" for patients in setting and achieving self-management goals.

Behavioral training: The usefulness of the Common Sense Model for disease management

The Common Sense Model of self-regulation (CSM), a prominent health psychology theory, has been particularly useful in demonstrating the role of health beliefs in adherence for hypertension,[32,33] cancer,[34] and asthma,[35,36] as well as diabetes mellitus,[37–40] and studies show that addressing patients' health beliefs can help them to achieve better results.[41,42]

While a variety of behavioral models are used in patients' diabetes education and management, CSM offers an innovative framework for skills training of providers as well as for patients' themselves.[43–46] For instance, pharmacy education often utilizes behavioral approaches to the patient interaction such as motivational interviewing. The CSM meshes well with this approach, by suggesting concepts for addressing patients' mental models, or "representations" for illness and treatment (e.g., how an individual imagines or represents a particular illness in his/her own mind). These representations come from people's existing ideas or values they have been taught or absorbed (normative guidelines). Representations enable people to make sense of their symptoms and guide any coping actions they take, although their ideas may not be completely biomedically accurate. The CSM contains five components of illness representations (Fig. 1). *Identity* is the label or name people give to their condition and the symptoms that appear to go with it. *Cause* is the individual's ideas about the cause of their condition. *Time-line* is the individual's belief about how long the condition might last. *Consequences* are the individual's beliefs about the outcome (consequences) of his/her condition and how this will affect him/her physically