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ADDRESSING A NEED:

Applying Classroom Knowledge and Skills in a National Pharmacy Chain

Evan Schmidt and Phu Vo, *College of Pharmacy*

ABSTRACT

Evan Schmidt and Phu Vo, third-year PharmD students in the Purdue College of Pharmacy describe their experiences at Walgreens Pharmacy in Lafayette, Indiana, as part of taking the Safety and Service-Learning elective at Purdue. The students discuss the potential impact they can have by utilizing their knowledge to address a need in a national pharmacy chain, as well as what they took away from the experience.

KEYWORDS

pharmacy, service-learning, safety, organization

INTRODUCTION

In 2015, over 4 billion retail prescriptions were filled at pharmacies across the country (Kaiser Family Foundation, n.d.), equating to roughly 12 prescriptions per person filled every year, or about one prescription filled each month (U.S. Census Bureau, n.d.b). Nearly 8 out of 10 of these are generic drugs, made by numerous drug manufacturers (U.S. FDA, 2016). The Food and Drug Administration (U.S. FDA, n.d.) ensures that generic drugs offer the same quality and performance as the brand name product prescribed. Since many manufacturers produce generic medications, pharmacies or their wholesalers can often choose a manufacturer. When a pharmacy purchases a generic medication from one manufacturer, and then decides to purchase the same generic medication from a different manufacturer, this is termed a “manufacturer change.” There are multiple reasons that pharmacies change drug manufacturers, which include cost and availability. Although the new generic is of the same quality and performance, the two medications may look different, leading to confusion for the patient or their caregivers. Manufacturer changes are common in pharmacies, so our group chose to address the issue.

In January of 2017, we enrolled in an elective course called Safety and Service-Learning. This course would provide us the opportunity to serve our community and gain real-world experience applying knowledge from the pharmacy curriculum, as well as from our own work experience. Seven students were enrolled in the pilot

Lisinopril 10 mg, manufactured by Mylan Pharmaceuticals

Lisinopril 10 mg tablets, manufactured by Teva Pharmaceuticals

Figure 1. Note the differences in appearance between two tablets made by different pharmaceutical manufacturers, but contain the same medication (Mylan Pharmaceuticals, n.d.; Teva Pharmaceuticals, n.d.).

course instructed by Drs. Chelsea Anderson and Patricia Darbshire. Students worked with one of three pre-terminated community partners, including the Purdue University Pharmacy, the Hartford Hub community center, and Walgreens Pharmacy in Lafayette. We were assigned to Walgreens and decided to address the issues involving the interchange of generic drugs.

DESCRIPTION

Safety and Service-Learning is a one-credit pilot elective offered to third-year professional students and serves as an extension of the required Patient Safety and Informatics course. It provides students the opportunity to apply the concepts discussed in the required course, as well as other relevant topics covered in the PharmD curriculum. Students: (1) are assigned to and meet with a community partner, (2) conduct a need assessment, (3) develop a project that addresses a specific need agreed upon by the students and community partner, and (4) present their final project for feedback and future implementation. The course reinforces verbal and written communication skills through two in-class presentations and ensures that feedback is provided among the student teams.

We were assigned to the Walgreens pharmacy located on South Street in Lafayette, Indiana. The Walgreen Company, also known as Walgreens, is one of the largest pharmacy chain stores in the United States. It was founded in 1901 in Chicago, Illinois, by Charles Rudolph Walgreen, an American businessman (Walgreens, n.d.b). Walgreens is a subsidiary of Walgreens Boots Alliance, which ranks number one in the Food and Drug Stores industry category of Fortune Magazine's 2017 list of the world's most admired companies (Walgreens Boots Alliance, n.d.). Walgreens's mission is "to be America's most loved pharmacy-led health, wellbeing and beauty retailer" (Walgreen Company, n.d.a).

We arranged a time to meet with the pharmacy manager and staff and interviewed them about current issues and possible solutions to address their needs. We toured the pharmacy and familiarized ourselves with the store's workflow. The pharmacy manager answered the following questions to help us gather information and assess the pharmacy's needs:

- If you could change two things about the pharmacy, what would they be?
- Are there any services not currently being offered by the pharmacy that you would like to offer?
- What are things or areas that your pharmacy struggles with?

- What are the strengths and weaknesses of Walgreens, and your store location?
- In the next few years, what opportunities does your pharmacy have?

We then developed a PowerPoint presentation to present their needs and our ideas to the class and the Walgreens pharmacy manager. We collected and considered the feedback from the course participants, the course coordinators, and the pharmacy manager. We then identified one specific need—an effective method of informing patients and caregivers of manufacturer changes to their medications. We discussed this opportunity with the pharmacy manager and she confirmed her interest in addressing this need through our service-learning project.

In order to determine the appropriate approach to this issue, we felt it was important to identify the general literacy level of this pharmacy's patrons. We could then determine how best to communicate the manufacturer change to this patient sector. Our community partner is located in Lafayette, the largest city in Tippecanoe County, with a population of 71,111 in 2015 (U.S. Census Bureau, n.d.a). The median household income is estimated at about \$40,500, below the state average of \$49,255, and about one quarter of the residents in Lafayette have an income below the poverty level. The percentage of the population who achieved a high school level of education was about 86%, again lower than the state average (U.S. Census Bureau, n.d.a). Since this pharmacy is located in the twin cities of Lafayette–West Lafayette, it was important for us to examine any differences in the general health literacy level of those living in either city. Our research emphasized the importance of clear communication, and this finding was considered during our decision-making processes for our final project.

COMMUNITY IMPACT

This particular Walgreens pharmacy fills around 350 prescriptions daily. Although the staff was very busy while we were there, they were very cooperative and willing to answer our questions. After discussions with the staff and after considering various solutions to address the need for an effective method of informing patients about manufacturer changes, we developed two recommendations. The first was to increase the text size of the notification on the patient leaflet, which is stapled to the front of the prescription bag. The second was to change the current term "manufacturer change" to something more descriptive and layperson-friendly. It is common for patients to recognize their medication by shape and color, so we recommended writing, "The shape and/or

Figure 2. Evan and Phu designing their service-learning project that addresses a common community pharmacy issue.

color of your medication may have changed.” With these two modifications, we believe that patients will have a greater understanding of what a manufacturer change entails and why the appearance of their medication may have changed. This should help eliminate consumer confusion and increase the likelihood that patients will continue to take their medication.

STUDENT IMPACT

Through this class project, we learned that the real world is much more complex than it seems from listening to lectures about real-world issues. Overall, our previous classes prepared us well for the challenge of this project. It was gratifying to apply our knowledge in a real-life situation to address an actual problem. The first thing we learned was how to conduct a needs assessment. During the assessment, we applied concepts learned from a variety of classes. We kept an open mind and critically analyzed the numerous processes in the pharmacy based on concepts of ideal processes taught in our curriculum. We interacted with pharmacy staff to get the perspective of the employees who work at the store on a daily basis. The information and feedback from the questions we asked technicians, interns, and pharmacists was instrumental to the recommendations we ultimately made. We learned how important it is to consider their viewpoints, since it affects them on a daily basis. We also learned how beneficial it can be to hear the differing viewpoints of instructors and classmates since they all had different pharmacy experiences.

There were barriers to this project. First, conducting a needs assessment and designing a meaningful project in a three-week period was difficult. However, our primary challenge was working within the constraints of a community pharmacy that is part of a national chain. Changes must be considered and approved on

a corporate level, instead of simply getting approval from one owner or manager at an independently owned pharmacy. Our changes would have to work uniformly across stores and be cost-effective in order to be applied throughout the corporation.

We learned that no system is perfect, although we also found that systems can be optimized. A good system in a community pharmacy is one that reflects the needs of both the patients and the staff. We believe we were successful in meeting these stipulations when we made our recommendations regarding the communication of manufacturer changes.

CONCLUSION

The course Safety and Service-Learning helped us apply information that we learned in the pharmacy curriculum to a real-world situation, benefiting both patients and us as students. It was personally gratifying to see the knowledge we have learned prove valuable. This project showed us just how complex issues in the real world really are; this will benefit us as we make the transition from students to licensed pharmacists. Our project will also give patients in the community a better understanding of a manufacturer change, improving the chance that they will be adherent to their therapy without interruptions. This is a great opportunity to improve public health. Completing this service-learning project will prove beneficial throughout our careers as pharmacists when we consider ways to address the needs of our own patients.

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was offered in the College of Pharmacy. This class offered students the opportunity to apply knowledge and skills learned in the Doctor of Pharmacy (PharmD) curriculum in the design of a project that addressed a community need.

AUTHOR BIO SKETCHES

Evan Schmidt and **Phu Vo** are third-year professional students in the Purdue University College of Pharmacy. Both students were a part of the new elective course titled “Safety and Service-Learning” (PHRM 490) that

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