

Background

- 30.3 million people or nearly 10% of the United States are diagnosed with diabetes¹
- Patients with uncontrolled diabetes often have many clinicians, including pharmacists, to help control their diabetes
- Clinicians that can **empathize** with patients have shown to improve patient satisfaction and outcomes²
- The Diabetes Immersion elective at Thomas Jefferson University College of Pharmacy is offered to third-year pharmacy students to provide additional knowledge about diabetes through hands-on learning and guest lecturers
- The class emphasizes a well-rounded understanding of diabetes touching on topics that may not otherwise be covered in required courses due to time constraints

Class Activities

- Diabetes Information and Support for your Health (DISH)
 - DISH is a weekly, interprofessional, shared medical appointment at Jefferson Family Medicine Associates.
 - Students attended one session and wrote a reflection paper on the experience
- Diabetes experience
 - For seven days students experienced the life of a person with type 1 diabetes
 - Each student was required to check their blood glucose level and inject “insulin” (normal saline) based on randomly drawn blood glucose values and the carbohydrate content of meals
 - Students wrote a reflection paper on the experience
- Diabetes Fair
 - Students provided information about diabetes to patrons in the community at the local Salvation Army
 - Students used the knowledge they learned during the course to create activities ranging from nutrition education to blood pressure screenings

Classroom Lectures

<input type="checkbox"/> Diabetes review
<input type="checkbox"/> Exercise and diabetes
<input type="checkbox"/> Medical nutrition therapy
<input type="checkbox"/> Insulin injection & glucometers
<input type="checkbox"/> Preparation for diabetes experience
<input type="checkbox"/> Mental health and diabetes
<input type="checkbox"/> Sociobehavioral/cultural aspects of diabetes
<input type="checkbox"/> Diabetes and pregnancy

Student Feedback

- DISH
 - “The group at DISH was proof, to me, that if you treat your patients with **respect**, if you ensure the way you speak to them can reach them on their level, you will have the ability to make a difference in your patient’s lives.”
 - “Listening to the patients’ stories and struggles made me realize how difficult it is to control a chronic condition such as diabetes. At times I can get frustrated with patients and even family members with how unwilling they are to change their habits. For me, the solution is to simply eat better and exercise regularly. However, **going to DISH made me realize it is not that simple.**”
- Diabetes experience
 - “I gained **empathy** and can relate to patients on a slightly deeper level. I won’t look at patients with diabetes as just a condition, but as a person.”
 - “The diabetes experience **opened my eyes** to a lot of the obstacles that type 1 diabetics must go through to ensure that they stay healthy.”
- Course overview
 - “This elective has given me the **confidence** to apply what I have learned in the real world, as a pharmacy intern, and in the future as a pharmacist.”
 - “Overall, diabetes immersion may be one of the most important classes I have taken in pharmacy school so far because of its **relevance and importance**. This is the first class where I feel like I understood the full scope of the disease, rather than just the medications.”

Future Directions

- Make the course interprofessional by offering it to other colleges such as the College of Nursing or the College of Medicine at Thomas Jefferson University
- Interview a patient with diabetes to get their perspective on how they deal with the disease
- Create an activity where students volunteer with a registered dietician at a grocery store and help patients pick out appropriate food choices
- Expand this type of course for other pharmacy and health professional schools

Conclusion

- The Diabetes Immersion elective is an innovative and practical course that is designed to prepare pharmacy students for treating people with diabetes
- The course was composed of several guest lectures and activities with various topics including mental health, exercise, and socio-behavioral/cultural aspects of diabetes
- The structure of the course was more of an open dialogue rather than a lecture, allowing students to engage in conversations to foster learning
- The course fosters an ability to understand and **empathize** with patients, improving the patient-provider relationship and improving patient outcomes
- Opening this course to other health professional schools at Thomas Jefferson University may diversify perspectives and enhance learning experiences

References

1. National Diabetes Statistics. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/diabetes/data/statistics/statistics-report.html>. Published July 17, 2017. Accessed July 13, 2018.
2. Hojat M, Gonnella J, Mangione S et al. Empathy in medical students as related to academic performance, clinical competence and gender. *Med Educ*. 2002;36(6):522-527. doi:10.1046/j.1365-2923.2002.01234.x