

ENRH 172 Course Description: Diabetes Self-Management Education Elective

Course Directors: Dr. Nora Gimpel, MD

Department: Department of Family Medicine and Internal Medicine

Student Liaisons: Abirami Krishnamurthy, MS2; Anushka Mandalapu MS2

Contact: abirami.krishnamurthy@utsouthwestern.edu,
anushka.mandalapu@utsouthwestern.edu

Requirements:

- Attend a minimum 10 out of 12 sessions
- Minimum number of students per course – 8
- Maximum number of students per course – None

Rationale:

Over 34 million people in the United States have diabetes while another 88 million have prediabetes. Diabetes increases the risk of heart disease, stroke, and many other serious complications. According to the Parkland Needs Assessment (2020), diabetes is one of the leading causes of death and one of the main contributors of inpatient hospitalizations in Dallas. One of the key interventions proposed in the Parkland Assessment is to increase community education and awareness regarding diabetes. Medical students will inevitably come across patients with diabetes during their education. It is vital that we prepare pre-clerkship students regarding this topic since many encounter diabetic patients during this time through free clinic volunteering and other community service activities.

Multiple prior studies show that medical students and new doctors feel unprepared to manage patients with diabetes², which is problematic. One avenue to improve confidence is through pre-clerkship enrichment electives as this provides a foundation on important topics and early exposure. In 2015, 3 medical students at UACOM-T initiated a diabetes enrichment elective focusing on the diabetes care and education through a multidisciplinary approach.³ The study suggests that the diabetes-specific elective was effective in supplementing medical student knowledge of diabetes.

This elective is being proposed as a mechanism for preparing medical students to provide expertise in diabetes education and self-care counseling as part of a multidisciplinary team. As the prevalence of diabetes in Texas continues to increase (7.8% of adults in Dallas County had diagnosed diabetes in 2017), knowledge of diabetes self-care education will be important for all medical students.

References:

1. <https://www.parklandhospital.com/Uploads/public/documents/PDFs/Health-Dashboard/CHNA%202019.pdf>
2. Lansang MC, Harrell H. Knowledge on inpatient diabetes among fourth-year medical students. *Diabetes Care*. 2007;30(5):1088-1091. doi:10.2337/dc06-2174
3. Fazel MT, Fazel M, Bedrossian NL, Picazo F, Pendergrass ML. A student-implemented elective to improve medical student confidence in providing diabetes self-management support. *Adv Med Educ Pract*. 2016;7:567-570. Published 2016 Oct 5. doi:10.2147/AMEP.S113553

Objectives:

1. Prepare medical students for providing diabetes self-management education to assist future patients with diabetes.
2. After taking this elective, students should be able to work in a community setting such as the free clinics to empower patients with diabetes to take charge of their own health.
3. This elective will present evidence-based knowledge and training in the following topics below.

Format: Virtual or in-person based on speaker availability

Student Evaluation:

Grades will be pass/fail. Attendance is required to receive credit for the course.

Course Evaluation:

Grading will be pass/fail. To receive transcript acknowledgment, students must achieve the following:

- Format: 10 live sessions + 2 asynchronous assignments= 12 total credits available
- Minimum of 10/12 sessions necessary for credit.
- There are 10 total live sessions. Attending all of them will give you enough for transcript credit. You can miss up to 2 live sessions and still get full credit by completing the 2 asynchronous sessions/assignments.
- 2 asynchronous assignments are at end of the syllabus (If you require more than the 2 asynchronous assignments to achieve the 10 credit minimum, reach out to student liaisons for volunteer opportunities with the Brother Bill’s clinic)
- Complete the online REDCap course evaluation form

Schedule: Wednesday 12 – 1 PM In-Person

Date	Time	Session	Location
September 17	6-7 PM	Introduction to prediabetes/diabetes prevention	In-person

September 24	12 - 1 PM	Healthy coping and self-efficacy	In-person
October 1	12-1 PM	Healthy eating and physical activity	In-person
October 8	12-1 PM	Case-based learning and practical application	In-person
October 15	12-1 PM	Insights from a successful Diabetes Education Program	In-person
October 22	12-1 PM	Reducing risks of complications and problem solving	Zoom
October 29	12-1 PM	Blood glucose self-monitoring and insulin injection technique	In-person
November 5	12-1 PM	Discussion of BBHH Clinic and Patient Population	Zoom
November 12	12-1 PM	Interview with BBHH diabetic patients	Zoom
November 19	12-1 PM	Orientation/Q&A with Past Fellows	In-Person

Session 1: Introduction to prediabetes and diabetes prevention

Faculty Speaker: Dr. Marconi Abreu, MD, Medical Director of the Parkland General Endocrinology Clinic

Objective 1: Provide an overview of Type 1, Type 2, and gestational diabetes

Objective 2: Discuss the importance of diabetes self-management and how it affects patient outcomes

Objective 3: Engage with a patient living with diabetes and hear about their experiences

Session 2: Healthy coping and self-efficacy

Faculty Speaker: Dr. Uma Gunasekaran, MD, Lead Physician at Parkland Outpatient Diabetes Clinic

Objective 1: Learn healthy ways patients can deal with stress and change how they think and feel about diabetes

Objective 2: Discuss behavioral, personal, and environmental factors that affect self-efficacy as well as the role of self-efficacy in diabetes self-management

Objective 3: Identify different management interventions to help increase self-efficacy

Session 3: Healthy eating and physical activity

Faculty Speaker: Hoda Yeganehjoo, Ph.D., Assistant Professor of Clinical Nutrition

Objective 1: Recognize the importance of healthy dietary choices and their impact on blood sugar

Objective 2: Practice meal planning with carbohydrate counting

Objective 3: Understand the steps taken prior to exercising and how to develop an exercise program

Session 4: Case-based learning and practical applications

Speaker: Abirami Krishnamurthy, BS and Anushka Mandalapu, BS

Objective 1: Incorporate all the concepts learned in the course to help diabetic patients self-manage their condition through interactive case studies

Objective 2: Understand and explore the need for diabetes education and awareness in Dallas communities

Objective 3: Practice SMART goal setting in small groups

Session 5: Insights from a Successful Diabetes Education Program

Faculty Speaker: Kellie Rodriguez, RN, MSN, MBA, CDCES, FADCES, Director, Global Diabetes & Infectious Diseases at Parkland Health

Objective 1: Understand diabetes management and prevention

Objective 2: Develop skills in designing and delivering educational programs tailored to diverse populations with varying levels of health literacy

Objective 3: Identify key success factors and best practices from successful diabetes education programs

Session 6: Reducing risks of complications and problem solving

Faculty Speaker: Dr. Ashley Higbea, Pharm.D , faculty member of the Texas Tech School of Pharmacy

Objective 1: Understand the various health complications of diabetes including renal, cardiovascular, ocular problems

Objective 2: Understand the various barriers to reducing risks of complications including financial, socio-cultural, access, and environmental

Objective 3: Learn how to conduct effective foot and eye exams

Objective 4: Explore avenues to reduce barriers in small group settings

Session 7: Blood glucose (BG) self-monitoring and insulin injection technique

Faculty Speaker: Dr. Jacqueline McNulty, PharmD, Clinical Pharmacist for the Parkland Global Diabetes Program

Objective 1: Understand the role of blood glucose and HbA1c in self-monitoring diabetes

Objective 2: Learn proper insulin injection techniques

Objective 3: Gain broad overview of common diabetes medication

Objective 4: Learn to carry out glucose testing and interpret its results to guide lifestyle choices and improve outcomes

Session 8: Discussion of BBHH Clinic and Patient Population

Speaker: Ivan Esquivel, CHW

Objective 1: Learn about Brother Bill's Helping Hand Clinic with respect to their history, their services, and their mission

Objective 2: Learn about BBHH Clinic's patient population and the unique challenges faced by this population

Objective 3: Understand your role as member of the clinic team and how best to develop yourself into an effective provider for this clinic's population

Session 9: Interview with BBHH Diabetes Patient

Speaker: TBD

Objective 1: Learn about a diabetic patient's journey through her diabetes diagnosis and how it has affected her life

Objective 2: Develop skills of listening and empathy in hearing about how life can get in the way of dealing with a chronic condition

Objective 3: Learn about the patient's time in our fellowship program and how it has impacted her life

Session 10: Orientation/Q&A with Past Fellows

Speaker: Abirami Krishnamurthy, BS and Anushka Mandalapu, BS

Objective 1: Learn about our former fellows' perspectives from the program

Objective 2: Understand the difficulties that go into being a provider

Objective 3: Appreciate the impact that this fellowship has on developing patient-centric skills for your future in healthcare

Asynchronous Activities:

Asynchronous Activity: Meal planning with a Hispanic Diet

Objective 1: Research classic and common Hispanic meals that can be made healthier by implementing healthy dietary choices emphasized in Session 3

Objective 2: Learn to empathize with patients with regards to the difficulty of changing around diet with respect to diabetes

Objective 3: Identify cost-effective and healthy ingredient alternatives that will help reduce the diabetic burden

Asynchronous Activity: Case study of Success Factors in Health Education Programs

Objective 1: Provide 3 case studies of successful diabetes education programs.

Objective 2: Synthesize a list of the most commonly identified success factors and a discussion on how these can be applied to improve future diabetes education programs.

Objective 3: Evaluate the impact of identified success factors on patient outcomes and engagement levels in diabetes education programs.