GE-National Medical Fellowships

Primary Care Leadership Program, 2012

Diabetes Education Project

Jackson-Hinds Comprehensive Health Center

Jackson, MS

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Introduction

National and State Context

The state of Mississippi is known for its warm hospitality and southern cuisine. In the past several years, however, Mississippi has become well known for the state of its citizens’ health. Since I have lived in Mississippi, I have seen the health conditions of Mississippians gradually decline. As I was thinking about choosing a project to implement in Mississippi, I immediately thought of health education to counter-act the unhealthy habits of Mississippians. Several things contributed to me picking Type 2 Diabetes as my project focus. First, I grew up in a small town and have seen friends and family members struggle with Type 2 Diabetes and making healthy lifestyle choices. This makes Type 2 Diabetes education a personal issue. Second, Mississippi ranks first in obesity numbers and second in the number of people with diabetes and high blood pressure. One in eight people in Mississippi have diabetes. Type 2 Diabetes is a serious health issue. Some of the complications that can come as a result of Type 2 Diabetes include heart disease and stroke, high blood pressure, blindness, kidney disease, neuropathy, and amputations. These complications of diabetes lead to a high death rate in Mississippi. The latest data shows that the death rate for diabetes in Mississippi is 29.16, which is significantly higher than the overall diabetes death rate of 20.93 in the United States.

According to the 2010 CDC data the prevalence of Diabetes in Mississippi is 11.3%. This is higher than the national average of Diabetes, which is 8.3%. (Note that Type 2 Diabetes makes up 90-95% of all diabetes cases). Even more specifically, the three counties Jackson-Hinds Comprehensive Health Center serves are Hinds, Warren, and Copiah Counties. The respective age-adjusted percentage of adults with diabetes in these counties is: 12.4%, 12.0%, and 12.2%. These counties would be where I would be spending my time doing education and so I knew choosing Type 2 Diabetes would be beneficial for the Jackson-Hinds CHC patients. Intervention for Type 2 Diabetes is a necessity in Mississippi.

Location Background

After I was accepted into the GE NMF Primary Care Leadership Program, I was placed at the Jackson-Hinds Comprehensive Health Center. Jackson-Hinds Comprehensive Health Center is a Federally Qualified Health Center. Dr. Aaron Shirley and Dr. James Anderson founded Jackson-Hinds CHC in 1970. They started serving the underinsured and uninsured out of a small trailer. Now, thanks to their vision for the underserved population of Mississippi, Jackson-Hinds Comprehensive Health Center is the largest community health center in the state. Jackson-Hinds CHC has expanded to become a multi-million dollar establishment that has 15 locations in three Mississippi counties. Some of these locations include a homeless clinic, elderly housing complex, and school-based clinics. Jackson-Hinds CHC served 44,037 users with 134,646 total encounters this past year. They offer a complete range of medical services to Mississippi citizens.
Developing the Intervention

**Project Goal**

Jackson-Hinds CHC has methods in place to help address the issue of diabetes education with their adult medicine patients. Several of the staff in the Adult Medicine clinic told me about their Diabetes Education Class and the Diabetes Night that they offer to patients. The Diabetes Night is a one-night event where patients can come and get up to date on all of their diabetes maintenance. This includes blood glucose checks, foot exams, dental exams, and optometry exams. The Diabetes Education Class is a once a week program that continues for six weeks and teaches in-depth diabetes management information to patients who have diabetes.

In order to take full advantage of this summer opportunity, I wanted to educate patients on diabetes and also make them aware of the Diabetes Education Class that Jackson-Hinds offers. Providers do not always have extended periods of time where they are free to sit down with each patient who is at risk for or who has diabetes and discuss the details of choosing a healthy diet. Getting that information in the patients’ hands and talking it out with the ones who struggle to manage their diabetes is key for them to stay healthy in the years ahead. This is why I wanted to focus on educating patients about healthy nutrition choices for Type 2 Diabetes prevention and management.

My goal for the Diabetes Education Project was to educate patients about Type 2 Diabetes, assist them with prevention methods they can incorporate into their daily lives, and possibly help organize a diabetes night at Jackson-Hinds CHC. I wanted to gather information about the basics of Type 2 Diabetes, how it can be prevented, and how to best manage it; to create a sheet of recipes and a list of websites they could go to find more Diabetic-Friendly recipes; and, to spend one-on-one time with patients, answering any questions they might have about diabetes. Finally, I wanted to do a survey about Diabetes Awareness to see what the patients know about diabetes and what areas they are interested in learning more about.

**Project Methods**

Various methods were used to implement my Diabetes Education Project. Thanks to the support provided by Jackson-Hinds Comprehensive Health Center, I was able to observe primary care physicians, gather together education materials, educate patients one-on-one and in groups, and also hand out a survey on Diabetes Awareness.

Shadowing numerous primary care providers allowed me the opportunity to observe how they addressed issues like a high HbA1C, poor diet, obesity, and other Type 2 Diabetic related health problems. This was very helpful to learn various ways to
motivate patients to better their health. An example that I learned from was while shadowing Dr. Hutchins and seeing him address weight loss with a patient. Instead of overwhelming the patient with a high exercise and weight loss goal, Dr. Hutchins broke it down for the patient into manageable pieces. By going through an exercise plan that the patient could feasibly complete and gradually build on, Dr. Hutchins was ensuring that the patient would not get overwhelmed and quit exercising all together.

Another method I used for my project was gathering a group of materials on Type 2 Diabetes and Nutrition. I created a Diabetic-Friendly Recipes sheet with some diabetic-friendly recipes and resources available for accessing more recipes. For the rest of the materials, I utilized a handout found online by Journey For Control and handouts used by Jackson-Hinds CHC. These pamphlets included Eating Out When You Have Diabetes, The Type 2 Diabetes Meal Planner, Diabetes Nutrition in a Nutshell, and Learning about Type 2 Diabetes.

In addition to shadowing providers and compiling the handouts, I also took advantage of any opportunity to have an open discussion with patients who have been diagnosed with Type 2 Diabetes. At the Utica location of Jackson-Hinds CHC, Dr. Nedra Jackson was very helpful in allowing me to talk with patients who had Diabetes. The patients were given the materials I had and I went through each sheet step by step. This extended time with each patient provided an excellent opportunity for me to ask them what their daily diet looked like, how often they exercised, how often they check their blood sugar, and how often they got their eyes, feet, and teeth checked. An additional education opportunity I had was in conjunction with Hal Flowers’ project An Assessment of Community Health Needs in Edwards, MS. The Edwards Neighborhood Center site manager, Vivian Johnson, wanted us scholars to return to Edwards and speak to a group of Senior Citizens about health education. I brought Type 2 Diabetes pamphlets for the group and discussed what Type 2 Diabetes is, risk factors for Type 2 Diabetes, prevention tips for Type 2 Diabetes, healthy food choices for everyone, and how to manage Type 2 Diabetes. The seniors in Edwards were very engaging in the question and answer session and it was clear they wanted to know how they could improve their health.

Seeing that it would be helpful to know some of the demographics and diabetes awareness of the patients coming into the clinic, I created a survey to give out to the adult medicine patients at the main clinic location. While handing out these surveys in the waiting area, I made sure to give each patient a group of materials about Type 2 Diabetes and Diabetes management. Everyone was very willing to complete the survey and enjoyed reading the materials I provided them. I also discussed any questions they had concerning diabetes, nutrition, prevention, and health management. By giving out the surveys, I had the opportunity to speak with a large number of patients at Jackson-Hinds CHC in a small amount of time and address Type 2 Diabetes with each one.
Results and Conclusion

Results

Once 50 surveys were completed at the Main site, I started analyzing the results. The surveys provided me a lot of information about the patients seen by Jackson-Hinds CHC. On the survey, I asked questions concerning age, household income, education, and how often each survey participant visits the doctor. Also on the survey were diabetes-related questions to see if they had diabetes, if a family member had diabetes, or if they were concerned about getting diabetes. The results of these demographic and diabetes questions are shown below.

The demographic results above showed that the age of the participants varied. However, the majority of the survey participants (58%) were between the ages of 41 and 60. Of the survey participants, 54% visit the doctor five or more times every year. Concerning education, the survey revealed that 74% of the participants do not have a college degree. The yearly household income majority (56%) is $19,999 or less. These
demographic results show that the majority of the patients I surveyed do not have a college degree, visit the doctor frequently, are at the age of high risk for Type 2 Diabetes, and live below the poverty level for a family of four as set by the 2010 U.S. Census Bureau Poverty Thresholds.

As seen above, of the survey participants, only 16% had been diagnosed with diabetes or prediabetes. However, 64% of the patients had someone in their family who had diabetes. This showed me that diabetes has touched the majority of these patients’ families. While handing out the diabetes materials, I emphasized that the information on diabetes education should be shared with family members who have diabetes. Also, I hope that seeing a family member struggle with diabetes will help motivate the survey participants to pursue prevention methods so that they do not develop diabetes as well.

Shown in the following three graphs below, I asked questions on how informed the survey participant considers themselves, the risk factors, and the harmful effects of diabetes.
70% of the participants considered themselves either somewhat or very informed about Type 2 Diabetes. 78% checked that they were aware of the harmful effects diabetes can have on their body. Considering the large percentage of participants who considered themselves informed about diabetes, I was surprised by the results addressing the risk factors for Type 2 Diabetes. The options for the risk factors question included Poor Diet, Obesity, Family History of Diabetes, or All of the Above. 38% of the survey participants did not list All of the Above. They either listed only Family History of Diabetes, only Obesity, or a combination of two out of three. These results assured me that while patients may consider themselves educated on diabetes, obviously more education is needed to help patients realize what puts them at risk for diabetes and how they can decrease those risk factors to hopefully prevent a diabetes diagnosis.

Another survey question that confirmed the need for diabetes education is shown in the following pie chart.

The results of this question surprised me as well. 50% of the participants said “yes” they
are concerned they might get diabetes. 34% said no. And 16% were incomplete. Of these incompletes, all but one had been diagnosed with either diabetes or pre-diabetes. Half of the participants expressed concerned that someday they might get diabetes. This showed me that the interest in diabetes prevention information is high. Seeing the percentage of participants that were unsure of what puts them at risk for getting Diabetes and comparing that with the amount of participants that are concerned they might get diabetes gave me confirmation that my Diabetes Education Project was targeting people who needed to learn more about diabetes.

Concerning education materials, I asked the following question on the survey: “If pamphlets on Diabetes were available, would you read them?” A majority of 76% said yes, they would read them. The results are shown below.

![Bar Chart](chart)

This caused me to focus on ensuring there is patient education material on Type 2 Diabetes in the Adult Medicine waiting area at the main site. Under the supervision of the charge nurse in Adult Medicine, Ms. Bass, I folded handouts and put out small booklets of carbohydrate and nutrition information about Diabetes in the patient waiting area. The display is seen in the before and after photos shown on the next page. I also made sure to keep the waiting room well stocked with handouts until the end of my summer project at Jackson-Hinds CHC.
The last two questions I asked on my survey concerned Diabetes Education Classes.

As seen above, 84% of the survey participants had never taken a Diabetes Education Class; and yet, 72% expressed interest in attending a class by checking either “yes” or “maybe.” Jackson-Hinds CHC offers a Diabetes Class to those who are interested. This is a great opportunity for patients to pursue more in-depth education about Type 2 Diabetes. I received the contact information for the Diabetes Class at Jackson-Hinds CHC and made sure to give it to survey participants who expressed interest in the class. My hope is that some of these patients who showed interest in the class will join one of the upcoming classes at Jackson-Hinds CHC.
Discussion and Conclusion

A couple of the modifications I made to my project included narrowing my survey population to target the patients more at risk for Type 2 Diabetes and attending a UMMC Diabetes Education Class instead of a Diabetes Night. Originally, I planned to survey at more of the Jackson-Hinds CHC clinic locations, but after observing for several days, I realized that the main site was more conducive to targeting the population at risk for Type 2 Diabetes since the Adult Medicine clinic had its own waiting area. The second modification was attending a UMMC Diabetes Education Class instead of a Diabetes Night. Due to time constraints, the Diabetes Night was not possible for me to get involved in at Jackson-Hinds CHC. However, thanks to the information from Dr. Tonore, my faculty advisor, I attended a Diabetes Class at UMMC and was able to participate and assist. If I were to do this project again, I would have enjoyed attending more of the Diabetes Classes at UMMC. The UMMC Diabetes Class provided a wonderful opportunity for me to observe diabetes education, participate in interactive learning, and see how to properly do a blood glucose check and foot exam.

Overall, I really enjoyed my project this summer and my time at Jackson-Hinds Comprehensive Health Center. I had the opportunity to educate a lot of people on Diabetes Nutrition, Prevention, and Management through one-on-one time and compiling materials on Type 2 Diabetes, Nutrition, and Recipes. By including the survey, I also was able to see a sample of the population I was educating -- how much they know, how much they’re interested in learning more about diabetes, and a little bit about who they are. Handing out the surveys in person worked very well for my education focus. It allowed me to answer any questions the patients might have at that time. Similarly, the opportunities to provide further education to individuals while at the Utica clinic and in Edwards were very beneficial. This summer Diabetes project was a learning opportunity for myself and for the patients. My hope is that the education I provided the patients this summer causes Mississippi residents to realize the negative impact Type 2 Diabetes has on their health and motivates them to change their eating habits and start exercising to prevent diabetes.

Leadership Opportunities and Acknowledgments

Leadership Opportunities

In addition to the Diabetes Education Project, the GE-NMF PCLP Scholarship also provided me the opportunity to learn numerous leadership aspects of a Community Health Center. I attended two board meetings and meetings with the Centers of Medicare and Medicaid Office of Minority Health, Quest Laboratory, Delta Health Alliance, and many more organizations. I also was able to interview and meet with leaders of Jackson-Hinds Comprehensive Health Center and discuss various aspects of their leadership positions with them. Coming into this program, I had no idea what a community health center was and what it provided. As I finished up my weeks at Jackson-Hinds, I realized how much more knowledge I had acquired about what it takes
to provide health care to uninsured and underinsured patients, and also what it takes to run and operate a Federally Qualified Health Center. Both the GE-NMF Primary Care Leadership Program and Jackson-Hinds CHC were open to help students like myself learn through hands-on experiences. Thanks to the helpful attitude of the leaders and providers of Jackson-Hinds CHC and the prompt replies to my questions from the GE-NMF PCLP staff, I was able to implement my Diabetes Education Project smoothly and complete it on time. I have learned so much about practicing medicine to the underserved and about leadership in a community health care environment. These experiences I have had this summer are ones I will take with me as I finish my medical school, residency, and begin practice in primary care here in Mississippi.

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Works Cited


