Type 2 Diabetes Mellitus Among Hispanic/Latino Populations

Lillian Lima

Margaret H. Rollins School of Nursing

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D. Blankenship RN, BSN, MSN

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In October of 2020 I picked up a facetime call from my aunt, only to see my grandma lying in the bed of the ICU. She was extremely pale, swollen from hemodialysis and her heart was hardly pumping. She had been fighting Type 2 Diabetes, but the battle began to be harder than she could handle. Her kidneys were failing, her vision was extremely impaired, and her peripheral sensations were lost. I knew it was going to be my last goodbye, and at that moment, the world suddenly seemed to stand still. She was barely able to speak due to her condition, yet through subtle tears and mumbles, she was able to say only two things: "I love you" and "take care of your dad". Looking at my grandma's terminal condition, I couldn't bear the thought of this being the state at which my dad, who also has Type 2 diabetes, comes to. But I wasn't fully aware of the prognosis of unmanaged Type 2 diabetes until this facetime call.

More than 34 million people in America are diagnosed with Diabetes Mellitus, which include Type 1, Type 2, Gestational Diabetes, and other specific types of diabetes. It is a chronic, metabolic disease characterized by constant levels of hyperglycemia due to complete or partial insufficiency in insulin secretion, and/or inadequate insulin action (Galicia-Garcia et al, 2020). Approximately 90-95% of the cases in the US are Type 2 DM, but the prevalence among the Hispanic/Latino population is higher than the national average. Also, these ethnic groups have a genetic susceptibility to increased insulin resistance and obesity leading to higher cases of Type 2 Diabetes (Aguayo-Mazzucato, 2019).

Although there is a higher dominance of Type 2 Diabetes within Hispanics/Latinos, diagnosis and treatment among these ethnic groups have been delayed. This is due to sociocultural factors, such as lower income, and decreased access to education and healthcare, leading to higher mortality rates among this population (Aguayo-Mazzucato et al, 2019). Type 2

Diabetes is a chronic disorder that if left untreated, will lead to deadly complications. As nurses, it is important to ensure appropriate education within this population to lead to a better quality of life. This paper will discuss Type 2 Diabetes among the Hispanic/Latino population in the US, risk factors, causes in delay of care, and treatments of this disorder.

<div align="center">**Type 2 Diabetes Among Hispanics and Latinos**</div>

Because of the inadequate insulin secretion and sensitivity, glucose is not moved into the cells, remaining in the blood and resulting in consistent hyperglycemia (Galicia-Garcia et al, 2020). Factors that increase the risk of diabetes include age, ethnicity, sedentary lifestyle, and obesity. Hispanics and Latinos are more insulin resistant because of genetic abnormalities, posing them at greater risk of developing Type 2 Diabetes. Yet, even with this genetic factor, Hispanic/Latino populations have limited diabetes awareness, control and health insurance coverage. In a Hispanic Community Health Study/Study of Latinos diabetes patients, the rate of diabetes awareness was only 59%, and controlled A1C <7% was only 48% (Joseph et al, 2021). However, this study also stated that the disorder is often undiagnosed in this group caused by the lack of routine health care. Therefore, the percentages on diabetes awareness, and controlled A1C among this group most likely decreases, since many who could be tested are oblivious to their diagnosis (Joseph et al, 2021).

One of the reasons for the lack of routine health care among these ethnic groups is poor health literacy. This refers to the skills needed to understand health information to make informed decisions. A study done among Hispanics/Latinos around the age of 55 demonstrated that 50% of the sample reported having less than a high school education (Estrella & Allen-Meares, 2020).While another study showed that 62% of Latinos tested having low health

literacy (Aguayo-Mazzucato et al, 2019). In the statistical analysis of 97,758 deaths of diabetic

Hispanics, mortality rates were shown to be higher in those least educated than in those most

educated (Barcelo et al, 2021). Also, research has shown that poor health literacy is associated

with higher diabetes complications, and mortality rates (Estrella & Allen-Meares, 2020). These

complications include retinopathy, nephropathy, cardiovascular disease, peripheral vascular

disease, venous ulcers in the lower extremities and more (Aguayo-Mazzucato et al, 2019). In

other words, undertreatment of Type 2 DM among this population could lead to worsening

prognosis, increasing complications and higher mortality rates, thus being crucial that nurses do

not leave this problem untreated.

Risk Reduction and Treatment of Type 2 Diabetes

Although Type 2 Diabetes is a chronic disease, early detection, management, and

treatment is essential for the reduction of deadly complications. In fact, the Diabetes Control and

Complications Trial showed that controlling blood glucose and keeping it within target range

reduces the risk of developing complications. The results were a reduction of 76% in retinopathy,

50% in nephropathy, and 60% in nerve disease (Aguayo-Mazzucato et al, 2019). Therefore,

nurses need to provide proper education in order for these patients to manage and treat this

disorder. The ways to treat this disorder are through a well balanced diet, exercise therapy,

weight loss, drug therapy and blood glucose monitoring. The most common drug for Type 2

Diabetes is Metformin and it works by improving your body's sensitivity to insulin (Mayo Clinic

Staff, 2021). Since Hispanics/Latinos have a poor health literacy, it is important for nurses to

educate diabetic patients using simple terms instead of medical terminology, and ensuring

certified translators as needed.

Additionally, providing culturally appropriate management education has significantly increased improvement in glycemic control and lifestyle changes within these ethnic groups (Aguayo-Mazzucato et al, 2019). Weight loss through nutritional therapy and exercise controls lipid, cholesterol, triglyceride levels, and blood pressure (Mayo Clinic Staff, 2021). Most importantly, it improves the ability of the body to use insulin and process glucose allowing for a regulation of glucose levels. (Aguayo-Mazzucato et al, 2019). On a daily plate of diabetics, 45-65% should be carbohydrates, about 30% should be fats and about 15% should contain proteins. However, traditional Hispanic/Latino foods are high in fat and calories, such as red and processed meat, white rice, white bread and refined sugars (Aguayo-Mazzucato et al. 2019). But, referring these patients to a diabetic dietician will ensure individualized nutritional modifications, which encourages compliance to this new lifestyle change.

Another consult that nurses can refer Hispanic/Latino patients are to culturally specific diabetic education programs. The Diabetes Assessment, Nursing, Nutrition and Dental Evaluation Project provided a culture specific diabetic education program and evaluated the impact that it would make on these patients. A group of about 10 people watched a bilingual video that was customized for low literacy Hispanics. The video was on nutrition, hypertension, eye care, foot care, oral health and kidney related problems, then, followed by a group discussion. In the end, most of the groups experienced significant weight loss and adhered to their care (Aguayo-Mazzucato et al, 2019).

Reflection

Understanding Type 2 Diabetes and its impact on the Hispanic/Latino population, I am left in awe because of the higher prevalence among certain ethnicities, yet delayed care and

management within them. Going further, I will provide education in these higher affected

populations, while ensuring their understanding. Most importantly, I will be able to provide

teaching to my dad, who is currently fighting Type 2 Diabetes, but has little understanding of his

disorder. In my practice, I pretend to use my current second language in order to be able to reach

these minority populations when I am a nurse. I may face challenges, such as learning medical

terminology in a different language, but I am determined to make a difference between this

minority group. Also, lower income families may not be able to afford care, but I anticipate

volunteering in community clinics during my time as a nurse to ensure that everyone gets the

care that they need.

Conclusion

In Type 2 Diabetes, the human body is impaired in that it does not regulate glucose levels

the way it should due to dysfunction of the insulin production. This disorder is more widespread

within the Hispanic/Latino population because of a genetic abnormality. Yet, management of this

disorder within this population is delayed because of factors such as poor health literacy. Many

do not have understanding of this disorder leading to complications like eye disease, foot ulcers,

chronic kidney disease and heart diseases. Eventually, these complications lead to death.

However, ensuring proper education to these patients through simple terms, certified translators,

and culture specific diabetic groups, management of the condition significantly increases among

these patients. As nurses, we must guarantee advocacy for the care and overall well being of our

patients because we are taking care of someone's loved one. Although my grandma's Type 2

Diabetes resulted in terminal complications that lead to her passing, I will make certain that

others stories will be different.

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