“You’re too sweet,” is a term we have all heard of before. However, in the case of Diabetes, it rings true. Diabetes comes in 3 basic types: Type 1, Type 2, and Gestational Diabetes. There are other forms of Diabetes, however they are usually related to other disease entities. This effort will focus upon Type 2 Diabetes, since it is so prevalent. In 2005, it was estimated approximately 10% of the US population had Type 2 Diabetes and approximately only 25% were diagnosed. This was approximately 30 million people. (National Institute of Diabetes and Digestive and Kidney Diseases, n.d.) In 2020, the U.S. Department of Health and Human Services released its National Diabetes Statistics Report. It showed that over 34.2 million people had Diabetes in the US. The risk factors for diabetes were reported as: smoking, obesity, physical inactivity, A1C (measure of the sugar levels for 3 months based on red blood cells), high blood pressure and high cholesterol. Diabetes has many co-morbidities. These were reported as: major cardiovascular disease, ischemic heart disease, stroke, lower extremity amputation, hyperglycemic crisis, hyperosmolar hyperglycemic syndrome, hypoglycemia, kidney disease, and diabetic neuropathy. (National Diabetes Statistics Report 2020: Estimates of Diabetes and Its Burden in the United States, n.d.; DeFronzo, et al., 2015) Diabetes can also affect the eyes. It is the leading cause of new blindness for people in the U.S. in the 20-60 year old age range. (EYLEA (aflibercept) Injection, 2023; Dansinger, 2023) Diabetes can also affect the kidneys. If blood sugars get too far out of range, people could find themselves in the hospital and in a diabetic coma or possibly die. (The Health Feed, 2022)

With all these health issues, Diabetes is a major health problem in the US. Adult diabetics cost the health care system more than their non-diabetic counterparts. This includes “…higher outpatient costs, higher pharmaceutical costs, higher rates of hospitalization, and longer hospital stays during admissions related to many diagnoses.” (Gilmer, et al., 2023) These factors point to trying to establish a better understanding of Diabetes and its associated co-morbidities. With this knowledge, better treatment plans and overall better patient care can be established.

The first graph depicts males vs. females who are both diagnosed with diabetes and not diagnosed with diabetes. The Chi-square statistic is 203.17 with a very significant p value. This indicates there is an association between the genders and being diagnosed with diabetes and not being diagnosed with diabetes were body mass index (BMI) is concerned. This relationship was further explored with a t-test showing a very significant p-value for both the males and females. Glycosylated hemoglobin, often referred to as A1C, showed a significant t-test value with a very significant p-value. This relationship was shown for both males and females. However, there was almost identical data when the genders were compared. Blood glucose showed a significant t-test and p-value for males and females alike. However, again there was almost no difference between the genders. The last graph shows smoking status: current, former, and never. There was a general trend toward more individuals being never or former smokers when compared to their smoking counterparts. This was shown for both males and females.

Diabetes is a multifaceted disease with many co-morbidities. According to the data analyzed from the datasets that were utilized, there was almost no difference between male and female persons when they were diabetic or not diabetics. This was seen across BMI, AIC, blood glucose, and smoking status. One can suppose, that diabetes effects both males and females at about the same rates when similar indicators are evaluated.

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