Family History Plays a Predictive Role in Association with BMI Weight Category and Diabetes Knowledge

Alyssa Marquez, Deepti Yechuri, Kalan Tu

Background

Within the United States, diabetes continues to be a major public health concern, affecting 34.2 million diagnosed adults and approximately 7.3 million undiagnosed adults, representing 34.5% of all U.S. adults

It has been investigated how chronic health conditions like diabetes are influenced by health behaviors and health risk self-assessment

There are lapses in knowledge regarding how diabetes predictors influence diabetes risk self-assessment and overall diabetes development trajectories

Objective

To determine if there is an association between Prior Family History and Composite Knowledge Score or BMI Category.

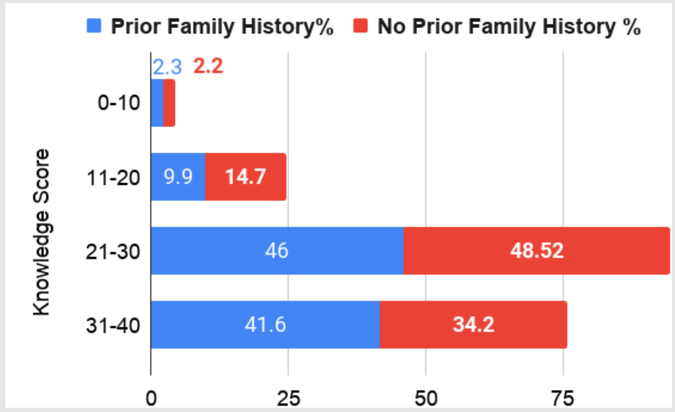
Methods

- Secondary analysis on a cross-sectional survey collected (n= 696) in University of West Virginia in 2018.
- The average age of participants was 21-22 years old. The survey consisted of 23 knowledge related to diabetes which were then used to calculate knowledge scores.
- 2 chi^2 tests were conducted to determine association between prior family history and composite knowledge score or BMI Category.

Results

- 54.6% of the sample population (n=696) had prior family history of diabetes.
- The average age of participants with prior family history of diabetes, was 22.11, and without was 21.67.
- An overall average knowledge score was recorded as 27.60. Participants with prior family history had an average of 28.16, and those without had an average of 26.89.
- Results showed that the participants (46%) with prior family history scored in the 21-30 knowledge score range. A p-value of 0.517 was obtained when comparing prior family history and composite knowledge score.
- Of the 380 participants that had a prior family history of diabetes 47.6% were in the overweight/obese category. When comparing participants what were in the different diabetes categories, overweight/obese and underweight/normal, p-value <0.00 was recorded.

Table 1. Crosstabulation of Prior Family History and Composite Knowledge Score



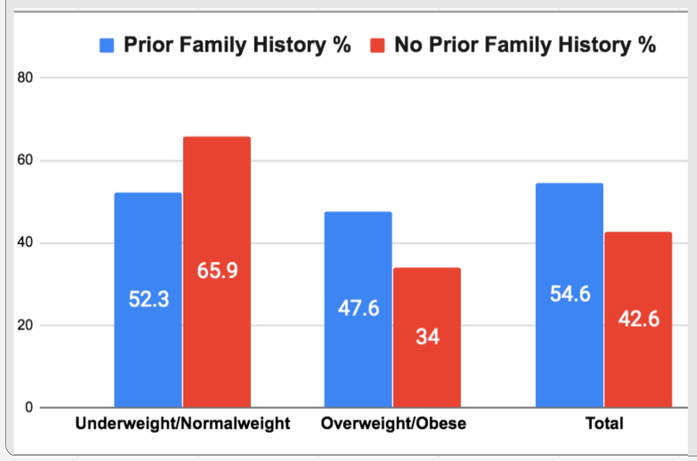


Table 2. Crosstabulation of Prior Family History and BMI Categories *(Underweight/Normalweight and Overweight/Obese)*

Conclusions

- In this study, it was found that there was a statistical association between prior family history of diabetes and BMI values. It was was also noted, that while no statistical association, there still may be a possible association between prior history and knowledge score
- Educational and health facilities to increase their efforts in educating individuals about diabetes and their risk factors to decrease their risk.

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