INTRODUCTION

Background

- Multiple studies have shown that diabetics have a rate of depression approximately twice that of non-diabetics.
- It is well-established that depressed individuals have an elevated risk for suicide.
- Limited evidence suggests that diabetics may be at an elevated risk for suicide and that this may be related to blood glucose levels.

Objectives

- Given the elevated rate of depression in diabetics and the established association between depression and suicide, we sought to expand on the limited evidence by examining the association between diabetes and suicidality.

METHODS

Data Source

- Data were obtained from the NHANES III public release data files on the NHANES website: http://www.cdc.gov/nchs/about/major/nhanes/dataline.htm, and included the ‘Household Adult’ and ‘Examination’ data files.

Participants

- 7,622 individuals between the ages of 17-39.
- All completed measures of the exposure, outcome and covariates.
- Age was limited to 17-39 because the DI was only administered to this age group.

Exposure, Outcome and Covariates

- Diabetes was the mainoutcome and was assessed with the DI depression module.
- Participants were asked: “Has there ever been a period of 2 weeks or more when you…”
- “…thought a lot about death?”
- “…felt so low you thought of committing suicide?”
- “Have you ever attempted suicide?”
- Diabetes was the main exposure and was assessed by asking: “Have you been told by a doctor that you have diabetes or being type 2 diabetes?}
- Covariates were obtained from the interview and examination and included age, race, gender, Depression (DSM-III), BMI (underweight=18.5; normal=18.5-24.9; overweight=25-29.9; obese=30), poverty status.

METHODS (CONT’D)

Statistical Analysis

- We performed chi-square tests of association between diabetes and the four measures of suicidality: thinking about death, thinking about committing suicide, wanting to die and suicide attempt.
- Adjusted models were computed using logistic regression and controlling for: Depression, BMI, age, gender, race and poverty status.
- Analyses were not weighted to reflect the NHANES sampling procedure.

RESULTS (CONT’D)

Table 1a & 1b: Covariates by suicidality variables for participants ages 17-39 in NHANES III (N=7,622).

Table 2: Unadjusted associations between diabetes and suicidality in 7,622 NHANES III participants ages 17-39.

DISCUSSION

Conclusions

- In the unadjusted models, diabetics were significantly more likely to think about death and to say they wanted to die compared to individuals without diabetes.
- After adjusting for depression and several other covariates, diabetes was no longer significantly associated with suicidality in this sample.
- In these data, depression likely accounts for the association between suicide and diabetes.
- In the future, assessing suicidality outside of assessment of depression would contribute to our understanding of this relationship.

REFERENCES