# FINAL PROJECT

Kaytlin Garrison

**1.** The dataset has a total sample size of 150, with 60% of respondents identifying as female and 40% male. The average age of respondents was approximately 44.27 years of age. Female respondents had an average age of 44.33 years and men averaged 44.17 years. The average number of hours slept per night for the total sample was 7.51 hours. Men reported an average of 7.82 hours and women an average of 7.31 hours of sleep per night. The average depression score for the total sample was 13.67, which was derived from the PHQ-9 score that ranges from 0 to 27, where higher scores indicate more severe depression. The average depression score for females was 14.36 and males was 12.65. In order to optimize the understanding of the descriptive statistics, a graph was included below to reiterate the information provided.

| | Female | Male | Total Sample |
|---|---|---|---|
| **Age** | 44.33 | 44.17 | 44.27 |
| **Sleep** | 7.31 | 7.82 | 7.51 |
| **Depression** | 14.36 | 12.65 | 13.67 |
| | | | |
| | n=90 (60%) | n=60 (40%) | N=150 (100%) |

**2.**

| | | Depression Severity | | |
|---|---|---|---|---|
| Variables | All Respondents | Minimal/Mild | Moderate | Moderate/Severe |
| Drinks | 3.13 | 0.98 | 2.39 | 4.85 |
| Dreams | 3.16 | 0.81 | 2.57 | 4.96 |
| Nightmares | 3.23 | 1.43 | 2.5 | 4.71 |

**3.**

<u>Research Question:</u>  Is there a correlation between depression scores and number of days a person remembers their dreams per week?

<u>Methodology</u>: The variables used to measure depression and dreams are both continuous in their original forms, allowing for a correlation analysis to be conducted. I am using data that was collected by a research team from Texas State from a group of 150 Hays/Travis County adult residents who volunteered for the study. The independent variable is "depression" and the dependent variable is "dreams."

Independent Variable: Depression scores
Dependent Variable: Dreams

Null Hypothesis: There is no correlation between depression scores and the number of days a person remembers their dreams per week.

Research Hypothesis: There is a correlation between depression scores and the number of days a person remembers their dreams per week.

<u>Results:</u>

Pearson's 'r' = 0.860
*p-value* = 0.000 < α (0.01)

The scatterplot and regression line indicate that the presence of a positive relationship between Depression and Dreams.

<u>Conclusion:</u>
We reject the null hypothesis and accept the research hypothesis, based on p-value (<0.01). This indicates the presence of a significant positive relationship between the variables. As respondents' depression scores increase, their prevalence of dreams increases. The strength of this relationship is strong positive.