**Assignment 4: Logistic Regression**

The purpose of this assignment is to practice conducting, interpreting, and documenting models related to a logistic regression analysis.

1. I would like you to identify a new research hypothesis from the assignment SPSS file.
   1. Identify one dichotomous outcome variable (you may need to dichotomize a continuous variable—if so, justify the split point and note that dichotomizing a continuous variable is not recommended in practice) and two continuous predictor variables.
   2. Create an SPSS file with only these three variables (a fourth column for PID if you would like)
2. Create three models from the variables
   1. Model 1: Regress the outcome variable onto the first predictor variable
   2. Model 2: Regress the outcome variable onto the second predictor variable
   3. Model 3: Regress the outcome variable onto both predictor variables
3. Evaluate the three models and pick one to write about. You will need to justify the model selected in the writing.

The submitted assignment should consist of:

1. A three-page max (not including table) APA formatted paper that includes:
   1. Brief introduction paragraph with identification of the research hypothesis and justification for the study (explain why you think the predictors are related to the outcome).
   2. A paragraph on the basic descriptive statistics for the three variables (best measure of central tendency and variability).
   3. A paragraph describing models tested and the selection of the model that best fits the data. You will also want to address collinearity between the predictors.
   4. A paragraph on the relevant inferential statistics for the model selected. Report *and* interpret the regression coefficients, test statistic between the variables, *p*-value, pseudo-*R*2, and confidence intervals for Exp(B) in relation to the variables used in the model.
   5. A brief concluding paragraph. Give a brief restatement of your findings (one sentence; no stats) and then interpret your findings. The interpretation is the “why” part of the assignment. Why do you think there is a relationship or lack thereof? Briefly explain.
2. A table with the three models. Include a column for the odds ratios (OR). Remember that tables follow the text in APA format and should not be imbedded in the text. Make sure to refer to the table in text.
3. An SPSS datafile with the three variables so I can replicate the findings