Baloglu, M. (2001). *An application of structural equation modeling techniques in the prediction of statistics anxiety among college students.* PhD Texas A&M University - Commerce. Supervisor: Paul F. Zelhart.

No general theory has been formulated to show interrelations among a collection of variables that are related to statistics anxiety. The present study made an attempt to develop a comprehensive model that would predict statistics anxiety from several dispositional, situational, and environmental antecedents derived from the current literature. Two hundred forty-six college students who were enrolled in introductory statistics courses completed a survey packet that included a set of questions and five standardized assessment instruments that measured statistics anxiety, mathematics anxiety, attitudes toward statistics, test anxiety, and general anxiety. Extensive preliminary data screening assured the appropriateness of the data for parametric statistics. Independent - test results showed significant differences between low-and-high anxious students in terms of attitudes toward statistics, test anxiety, mathematics anxiety, general anxiety, previous mathematics experience, satisfaction, and pace. A direct discriminant function analysis was used to discriminate between low-and-high statistics-anxious students. A significant discriminant function, based on the attitudes toward statistics and test anxiety, classified the groups accurately approximately 80% of the time. Five measurement models and one structural model were specified, identified, estimated, and tested. Results showed that the modified structural model did not fit the data well. However, the dispositional and situational antecedents models fit the data well. The original environmental antecedents model was modified to fit the data. In the final model, the dispositional and situational antecedents models contributed significantly to statistics anxiety. The environmental antecedents model was not a significant contributor; however, it was significantly related to the other variables in the model. The dispositional antecedents model alone accounted for 58% and the situational antecedents model alone accounted for 23% of the variance in statistics anxiety scores. The present study showed that statistics anxiety is a complicated construct that is difficult to measure and investigate. Findings of the present study also suggest that personality-related factors may be one of the most important effects of statistics anxiety. More studies are needed to clarify the construct of statistics anxiety and its relationships with other variables.