**Statistical Design Consulting**

**SEMESTER REPORT**

**Spring 2025**

**Client:** Yifei Zhao  **File Number:** 24-090

**Department:** Nursing **Major Prof:** Dr. Pricilla Ding

**Consultant:** Sumeeth Guda **Initial Meeting Date:** 09/25/24

**Meeting Attendees:** Yifei Zhao, Sumeeth Guda, Dr. Qinglan Ding, Dr. Chong Gu

**Statement of Problem:** To determine if an interactive online educational program in cardiovascular health helps improve the dietary habits of adults in the 20–39-year age group.

**Goal of This Project:** DNP project.

**Background:**

The client is a DNP student in the nursing department who is investigating the awareness of heart health with respect to dietary habits in young adults in the 20–39-year age group. Since there is a rise in sedentary lifestyle within this age group, cardiovascular health is significantly influenced by elevated cholesterol levels and poor dietary habits. The client is developing an online educational program to inform 20-39-year-olds about the risks of poor cardiac health and the benefits of good dietary habits in cardiac health. All with the goal of reducing their risk of cardiovascular diseases and improving the eating habits of the participants.

The client finished their study design in the Fall 2024 semester after meeting with the SCS. Their main plan during the Spring 2025 semester was to run their study, collect the data, and have the SCS analyze the data to determine the effectiveness of their intervention study.

**Progress During Current Semester:**

Yifei and Sumeeth met in the spring semester a handful of times. The first meeting was to determine the logistics of rolling out the survey and determine the ideal washout period. Once this process was complete Yifei said that she will collect the data in March 2025 from mostly Purdue students. She said that analysis needed to be complete by mid-April 2025. Once Yifei sent Sumeeth the pre-post data and the list of hypothesis questions, Sumeeth did all the analysis in R. Answering all of the hypothesis questions using 2 sample testing and reporting all the results in a document with an explanation of how they relate to the main research question. The high-level conclusion from this study was that her intervention program wasn’t statistically effective since all her P-values were greater than 0.05. She decided to raise her significance threshold from 0.05 to 0.1 to get significant results.

Yifei indicated that she will be defending her DNP thesis this summer semester, and won’t be needing the help of the SCS going forward. This project is now complete.

**Current Status: Complete.**