**Statistical Design Consulting**

**SEMESTER REPORT**

**Summer 2023**

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

**Department:** Nursing **Major Prof:** Dr. Qinglan 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 is in the early stages of their study design; hence they decided to come to the SCS to get help with their study design and data collection procedures, determining the ideal sample size for their study, and to develop the analysis techniques for the study.

**Progress During Current Semester:**

The client’s project is a textbook example DNP project starting from the design phase. They wanted to understand the statistical methods needed to do the project. Such as ideal sample size through power analysis, whether their observational study would be effective, and any other suggestions the SCS had regarding the project before they collected data. For this semester, Yifei’s main concern was getting IRB approval for her pre & post experiment.

Most of the suggestions were given at the IM meeting, where the biggest concern that Dr. Gu had with the study was the logistics of executing the study. Yifei had to make sure that all the data collected within the pre and post study had to be timely in order to evaluate the effect of her online educational program. At another meeting Sumeeth suggested that a way she could manage this is only keeping the educational program open for a short period of time to ensure that the responses are timely.

With respect to the power analysis, Dr. Gu recommended that she state a big number on the IRB application, and anticipate 30-50 participants within the analysis.

The client will collect data within the spring semester; hence she will continue to work with the SCS.

**Current Status: Continuing**