Project Questions:

1. Is online heart health education and dietary recommendations effective in promoting cardiac health and healthy eating behaviors among young adults aged between 20 and 39 years old?
2. Does an increase in cardiac knowledge and awareness have a positive effect on healthy dietary behaviors?

Hypothesis:

Cardiac Knowledge

- H_0*:* There is no significant difference in cardiac knowledge scores before and after the intervention (review the website on their own).
- H_1*:* Cardiac knowledge scores will significantly increase after the intervention.

Healthy Eating Behavior

- H_0*:* There is no significant difference in healthy eating behavior scores before and after the intervention.
- H_1*:* Healthy eating behavior scores will significantly improve after the intervention.

Impact of Sex at Birth on Healthy Eating Behavior Change

- H_0*:* There is no significant difference in pre/post change in healthy eating behavior by sex at birth.
- H_1*:* There is a significant difference in behavior change based on sex at birth.

Effect of Education Level on Cardiac Knowledge

- H_0*:* There is no significant difference in baseline cardiac knowledge scores based on education level.
- H_1*:* Baseline cardiac knowledge scores differ significantly based on education level.

Ethnicity and Healthy Eating Behavior

- H_0*:* Change in healthy eating behavior does not vary by ethnicity.
- H_1*:* Ethnic background influences the degree of healthy dietary change through the intervention
- **H_0:** There is **no significant difference** in pre-intervention healthy eating behavior scores between different ethnic groups.
- **H_1:** There **is a significant difference** in pre-intervention healthy eating behavior scores between two ethnic groups.

Correlation between Cardiac Knowledge and Healthy Eating Behavior

- H_0*:* There is no correlation between cardiac knowledge scores and healthy eating behavior.
- H_1*:* Higher cardiac knowledge scores are positively correlated with healthier eating behavior.

Descriptive Statistics:

- Frequencies and percentages of the following variables:
  - Age (20-29 and 30-39)
  - Sex at birth
  - Ethnicity
  - Educational level

    - Access to health knowledge
- mean, standard deviation (SD), Median:
    - Age
    - Pre-and post intervention cardiac knowledge
    - Pre-post mini-EAT score

Variables and Measures (Bold are variables)

1. This DNP project will collect variables such as **age**, **sex at birth, ethnicity**, **education**, and **access to health knowledge**. The following tools will assess variables such as cardiac knowledge and healthy eating behaviors both pre- and post-intervention.
2. We will use the **Mini-EAT** 9-item questionnaire to measure healthy dietary eating behaviors before and after implementing the educational website. According to the categories defined by Lara-Breitinger et al. (2023), a Mini-EAT score of 70 indicates a healthy diet, while scores between 61 and 69 suggest that an intermediate diet needs improvement. A score of 60 or below is indicative of an unhealthy diet.
3. We developed a questionnaire for cardiovascular risk factors and healthy lifestyle **knowledge assessment** based on a literature review and expert advice. Additionally, the survey will include demographic questionnaires before participants move on to the knowledge questions. There will be a total of 10 true and false questions to test participants' baseline knowledge and post-intervention knowledge. Furthermore, to enhance the accuracy of data collection, we will include a "don't know" option as the third option (Bergman et al., 2011). We will draw some questions from existing literature, where pilot studies have validated them (Bergman et al., 2011). Each correct answer receives 1 point, while false and "don't know" answers receive 0 points, with a maximum total of 10 points.