**Getting Out the Gunk Practice Assignment 3 Report**

**January 28, 2025**

**A . Introduction.**

This report summarizes the derivation and descriptive statistics using SPSS, including tasks such as right-wrong recoding, reverse coding, creating scale scores, and converting continuous variables into categorical variables

**B. Derivation of New Variables.**

**1. Right-Wrong Variables.**

Food pair variables **(x1a-x10a)** were recoded so that 1 represents correct responses and 0 represents incorrect responses to the questions of which food item contained higher LDL. These variables are now **(x1rw-x10rw).** This step was labeled as the **Knowledge Scale**.

**2. Reverse-Coded Variables.**

Likert variables **(x12a, x14a, x17a, and x20a)** from negatively worded questions were reverse-coded to maintain consistency with scales that range from the lowest to the highest self-efficacy. They were subsequently labeled **(x12rev, x14rev, x17rev, and x20rev)**. This was accomplished using the formula (k + 1 − item). **The Self-Efficacy Scale** was then calculated by taking the mean of the five variables: **(x11a, x12rev, x13a, x14rev, and x15a)**, which focus on self-efficacy in maintaining low cholesterol diet.

**3. Motivation Scale Score.**

The Motivation Scale was computed by measuring the mean of the five variables **x16a, x17rev, x18a, x19a, and x20rev** to reflect the motivation to adhere to a low-cholesterol diet.

**4. LDL Cholesterol Variables.**

Two LDL cholesterol variables were created. LDLCAT1 is a five-level ordinal variable categorizing LDL levels as Optimal (<100 mg/dL), Near Optimal (100-130 mg/dL), Borderline High (130-160 mg/dL), High (160-190 mg/dL), or Very High (≥190 mg/dL). LDLCAT2 is a dichotomized variable comparing "Not High" (<160 mg/dL) with "High" (≥160 mg/dL).

**5. Race/Ethnicity Variable**

The RACEETH variable combines race and Hispanic/Latino ethnicity into five categories: Non-Hispanic Black, Non-Hispanic White, Non-Hispanic Asian, Hispanic/Latino, and Non-Hispanic Other. This was achieved by combining the latino and race variables through the compute command utilizing the IF statement.

**Table 1. Descriptive Statistics and Reliability for Scales**

|  |  |  |  |
| --- | --- | --- | --- |
| **Scale** | **Mean** | **SD** | **Cronbach’s Alpha** |
| **Knowledge Scale** | 0.5380 | .29443 | .813 |
| **Diet Self-Efficacy Scale** | 3.6440 | .67899 | .712 |
| **Diet-Motivation Scale** | 3.5410 | .67899 | .641 |

**Table 2.Frequencies for LDL and Race/Ethnicity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Count** | **Percentage** |
| **LDL Categories** | **Borderline High (130-160 mg/dL)** | 37 | 18.5 |
|  | **High (160-190 mg/dL)** | 102 | 51.0 |
|  | **Very High (>=190 mg/dL)** | 61 | 30.5 |
|  |  |  |  |
| **LDL Dichotomized** | **Not High (<160 mg/dL)** | 37 | 18.5 |
|  | **High (>160 mg/dL)** | 163 | 81.5 |
|  |  |  |  |
| **Race/Ethnicity** | **Non-Hispanic Black** | 61 | 30.5 |
|  | **Non-Hispanic White** | 52 | 26.0 |
|  | **Non-Hispanic Asian** | 25 | 12.5 |
|  | **Hispanic/Latino** | 52 | 26.0 |
|  | **Non-Hispanic Other** | 10 | 5.0 |