**Getting Out the Gunk Practice Assignment 4 Report**

**02/05/2025**

**A . Introduction.**

This report summarizes the relationships among the variables: knowledge, self-efficacy, motivation, and LDL levels across demographics such as race/ethnicity and treatment groups. Descriptive analysis was conducted using cross-tabulations, descriptive statistics, and correlation analysis.

**B. Comparisons by Sex**

**Figure 1: Knowledge Score Figure 2: Self-Efficacy Score**

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**Figure 3:LDL Figure 4: Motivation Scale Score**  A graph with blue squares and black lines

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**Table 1: LDL Cross-Tabulation**

|  |  |  |
| --- | --- | --- |
| **Variables** | **Low LDL** | **High LDL** |
| **Sex** |  |  |
| **Female** | 15 | 56 |
| **Male** | 22 | 107 |
| **Total** | 37 | 163 |

**Interpretation:**

There are no significant differences between sex and scores related to knowledge, self-efficacy, or motivation. There appears to be a slight increase in males LDL suggesting they may be at a higher risk of elevated LDL levels.

**B. Comparisons by Race/Ethnicity**

**Figure 5: Self-Efficacy Figure 6: LDL**

A graph with blue rectangular objects

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**Figure 7: Motivation Figure 8: Knowledge**

A graph with blue squares and black text

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**Table 2: LDL Cross-Tabulation**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Low LDL** | **High LDL** |
| **Race/Ethnicity** | **Non-Hispanic Black** | 12 | 49 |
|  | **Non-Hispanic White** | 8 | 44 |
|  | **Non-Hispanic Asian** | 4 | 21 |
|  | **Hispanic/Latino** | 10 | 42 |
|  | **Non-Hispanic Other** | 3 | 7 |

**Interpretation:**

Self-efficacy, motivation, and knowledge are consistent across racial/ethnic group. Differences in LDL levels in Non-Hispanic Blacks and Hispanics/Latinos suggest higher proportions of high LDL. This suggests these groups are higher risk.

**C. Correlation Analysis**

**Table 3.**

|  |  |  |
| --- | --- | --- |
| **Variable 1** | **Variable 2** | **Correlation (r)** |
| **Knowledge Scale Score PRE** | **Self-Efficacy Scale Score PRE** | 0.202 |
| **Knowledge Scale Score PRE** | **Motivation Scale Score PRE** | 0.389 |
| **Knowledge Scale Score PRE** | **LDL in mg/dL PRE** | -0.445 |
| **Self-Efficacy Scale Score PRE** | **Motivation Scale Score PRE** | 0.278 |
| **Self-Efficacy Scale Score PRE** | **LDL in mg/dL PRE** | -0.315 |

**Interpretation:**

The significant correlations indicate that higher knowledge scores are positively associated with self-efficacy (r=0.202) and motivation (r=0.389), but negatively correlated with LDL levels (r=-0.445). This suggests that greater knowledge is linked to improved LDL levels.

**D. Treatment and Control Group**

**Figure 9: Treatment Group by Sex Figure 10: Treatment group by LDL**

A graph of a person and person

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**Figure 11: Knowledge Score Figure 12: Self-Efficacy**

A graph of a group assignment

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**Figure 13:Motivation Scale**

A diagram of a group assignment

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**Table 4. LDL by Experimental Group**

|  |  |  |
| --- | --- | --- |
|  | **Lower LDL** | **High LDL** |
| **Control** | 17 | 88 |
| **Treatment** | 20 | 75 |

**Interpretation:**

Randomization ensured effectiveness and minimized bias as the control and treatment groups are comparable across multiple variables.