**¸Baseline Data Analysis for ‘Don’t Just Sit There’**

**To: Dr.Bingenheimer**

**From: Jaclyn Batts**

**RE: Evaluation of Baseline Statistics**

**Date: 02/10/2025**

Baseline data for the physical activity intervention trial were evaluated to determine their effectiveness in altering key psychosocial precursors to physical activity, increasing physical activity itself, and enhancing overall physical well-being fitness. According to Table 1, the demographics indicate that there are more females than males, along with a majority of Non-Hispanic White students, which may influence behaviors related to physical activity. Other factors, such as school, grade level, and treatment groups, were generally evenly distributed. According to Table 2, students hold a positive view of exercise, with the highest mean indicating that students regard physical activity as fun. This suggests that physical exercise programs should be enjoyable. Students’ beliefs in their own abilities, known as self-efficacy, were also assessed, indicating that students can engage in exercise regardless of circumstances and external factors. Lastly, the assessment of value-expectancy revealed that sweating and feeling hot are predominantly viewed negatively. This suggests that students may be reluctant to engage in physical activity as frequently. With the implementation of this program, schools should provide students with resources to stay hydrated, exercise in cool, air-conditioned environments like gyms, and offer showers and towels. According to Table 3, the questions related to self-efficacy and values of physical activity are reliable and strong indicators for effectively assessing students. According to Table 4, self-efficacy and physical activity demonstrate the strongest correlation, suggesting that students who are confident in their ability to exercise tend to be more active. Therefore, physical promotion programs should concentrate on enhancing students' self-efficacy to encourage activity in their daily lives. According to Table 5, randomization seems to have been effective overall, as there are no significant differences among the variables, indicating minimal imbalances and bias.

**Table 1: Summary of Demographics and Key Variables**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **N or Mean** | **% or SD** |
| **MALE** | Female | 163 | 54.3 |
|  | Male | 137 | 45.7 |
| **RACE/ETHNICITY** | Non-Hispanic White | 152 | 50.7 |
|  | Non-Hispanic Black | 77 | 25.7 |
|  | Hispanic or Latino | 49 | 16.3 |
|  | Other | 22 | 7.3 |
| **SCHOOL** | Clara Barton High School | 100 | 33.3 |
|  | Frederick Douglass High School | 100 | 33.3 |
|  | Harvey Milk High School | 100 | 33.3 |
| **GRADE** | 9 | 86 | 28.7 |
|  | 10 | 79 | 26.3 |
|  | 11 | 60 | 20.0 |
|  | 12 | 75 | 25.0 |
| **TREATMENT GROUP** | Control | 155 | 51.7 |
|  | Treatment | 145 | 48.3 |
| **PHYSACTpre** | Physical activity (mean cycles per minute) PRE | 502.9806 | 166.31398 |
| **HRpre** | Heart Rate (beats/minute) PRE | 99.9688 | 9.35559 |

**Table 2: Summary of Questionnaire Responses**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Question** | **Response** | **Mean or N** | **SD or %** |
| A1pre | It would help me cope with stress PRE |  | 3.86 | 1.079 |
| A2pre | It would be fun PRE |  | 4.31 | 0.947 |
| A3pre | It would help me make new friends PRE |  | 2.98 | 1.436 |
| A4pre | It would get or keep me in shape PRE |  | 3.40 | 1.316 |
| A5pre | It would make me more attractive PRE |  | 2.39 | 1.305 |
| A6pre | It would give me more energy PRE |  | 3.09 | 1.264 |
| A7pre | It would make me hot and sweaty PRE |  | 2.99 | 1.378 |
| A8pre | It would make me better in sports or other activities PRE |  | 2.76 | 1.652 |
| B1pre | I can be physically active during my free time on most days PRE |  | 3.70 | 1.035 |
| B2pre | I can ask my parent or other adult to do physically active things with me PRE |  | 2.77 | 1.295 |
| B3pre | I can be physically active during my free time on most days even if I could watch TV or play video games instead PRE |  | 3.66 | 0.849 |
| B4pre | I can be physically active during my free time on most days even if it is very hot or cold outside PRE |  | 2.83 | 1.039 |
| B5pre | I can ask my best friend to be physically active with me during my free time on most days PRE |  | 2.69 | 0.991 |
| B6pre | I can be physically active during my free time on most days even if I have to stay at home PRE |  | 2.42 | 1.217 |
| B7pre | I have the coordination I need to be physically active during my free time PRE |  | 2.28 | 1.197 |
| B8pre | I can be physically active during my free time on most days no matter how busy my day is PRE |  | 2.93 | 0.947 |
| C1pre | Value of coping well with stress PRE | Neutral | 4.0 | 0.27266 |
|  |  | Positive | 23.7 |  |
|  |  | Very Positive | 72.3 |  |
| C2pre | Value of having fun PRE | Neutral | 6 | 2.0 |
|  |  | Positive | 38 | 12.7 |
|  |  | Very Positive | 256 | 85.3 |
| C3pre | Value of making new friends PRE | Very Negative | 9 | 3.0 |
|  |  | Negative | 25 | 8.3 |
|  |  | Neutral | 14 | 4.7 |
|  |  | Positive | 144 | 48.0 |
|  |  | Very Positive | 108 | 36.0 |
| C4pre | Value of being in shape PRE | Negative | 4 | 1.3 |
|  |  | Neutral | 4 | 1.3 |
|  |  | Positive | 141 | 47.0 |
|  |  | Very Positive | 151 | 50.3 |
| C5pre | Value of being attractive PRE | Very Negative | 13 | 4.3 |
|  |  | Negative | 60 | 20.0 |
|  |  | Neutral | 47 | 15.7 |
|  |  | Positive | 122 | 40.7 |
|  |  | Very Positive | 58 | 19.3 |
| C6pre | Value of having plenty of energy PRE | Neutral | 14 | 4.7 |
|  |  | Positive | 149 | 49.7 |
|  |  | Very Positive | 137 | 45.7 |
| C7pre | Value of getting hot and sweaty PRE | Very Negative | 138 | 46.0 |
|  |  | Negative | 123 | 41.0 |
|  |  | Neutral | 23 | 7.7 |
|  |  | Positive | 15 | 5.0 |
|  |  | Very Positive | 1 | 0.3 |
| C8pre | Value of being good at sports or other activities PRE | Very Negative | 6 | 2.0 |
|  |  | Negative | 28 | 9.3 |
|  |  | Neutral | 93 | 31.0 |
|  |  | Positive | 87 | 29.0 |
|  |  | Very Positive | 86 | 28.7 |

**Table 3: Scale Reliability Assessment Using Cronbach’s Alpha**

|  |  |
| --- | --- |
| **Variable** | **Cronbach’s Alpha** |
| Value-Expectancy Measures (VE1pre - VE8pre) | .892 |
| Self-Expectancy Measures (B1pre -B8pre) | .877 |

**Table 4: Pairwise Correlations of Key Study Variables**

|  |  |  |
| --- | --- | --- |
| **Variable 1** | **Variable 2** | **Correlation (r)** |
| Mean Self Efficacy | Mean Value-Expectancy | 0.517 |
| Mean Self Efficacy | Physical Activity (mean cycles per minute) | 0.659 |
| Mean Self Efficacy | Heart Rate (beats/minute) | -0.129 |
| Mean Value Expectancy | Physical Activity (mean cycles per minute) | 0.571 |
| Mean Value Expectancy | Heart Rate (beats/minute) | -0.057 |
| Physical Activity (mean cycles per minute) | Heart Rate (beats/minute) | -0.169 |

**Table 5: Treatment vs. Control Group Comparisons**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **Category** | **Control**  **(N or Mean)** | **Control**  **(% or SD)** | **Treatment (N or Mean)** | **Treatment**  **(% or SD)** |
| **Sex** | Female | 81 | 52.3 | 82 | 56.6 |
|  | Male | 74 | 47.7 | 63 | 43.4 |
| **Race/Ethnicity** | Non-Hispanic White | 70 | 45.2 | 82 | 56.6 |
|  | Non-Hispanic Black | 46 | 29.7 | 31 | 21.4 |
|  | Hispanic or Latino | 29 | 18.7 | 20 | 13.8 |
|  | Other | 10 | 6.5 | 12 | 8.3 |
| **Participants grade** | 9 | 48 | 31.0 | 38 | 26.2 |
|  | 10 | 44 | 28.4 | 35 | 24.1 |
|  | 11 | 30 | 19.4 | 30 | 20.7 |
|  | 12 | 33 | 21.3 | 42 | 29.0 |
| **Heart Rate Categories** | excellent | 3 | 1.9 | 2 | 1.4 |
|  | good | 19 | 12.3 | 19 | 13.1 |
|  | average | 109 | 70.3 | 107 | 73.8 |
|  | poor | 21 | 13.5 | 16 | 11.0 |
|  | very poor | 3 | 1.9 | 1 | 0.7 |
| **Dichotomized HR** | not poor | 131 | 84.5 | 128 | 88.3 |
|  | poor | 24 | 15.5 | 17 | 11.7 |
| **Mean Value-Expectancy** |  | 1.7234 | 1.15145 | 1.7250 | 1.05926 |
| **Mean Self-Efficacy** |  | 2.9258 | 0.76443 | 2.8922 | 0.82359 |
| **Physical activity (mean cycles per minute)** |  | 500.7155 | 169.35470 | 505.4019 | 163.55257 |
| **Heart Rate (beats/minute)** |  | 100.3040 | 9.70206 | 99.6104 | 8.99017 |