

Statistics Assignment 1

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Statistics Assignment 1 - Explore Data

General instructions

You must submit the following.

SPSS - Syntax file - Report in Word doc form with tables/figures cut and pasted from SPS output file

R - RMarkdown file - Knit report in HTML or PDF

Part 1 - Explore the data

1. Identify the variable types for each variable in the dataset
2. Calculate the BMI for each participant
3. Calculate a young and old variable as per data dictionary
4. Calculate the mean and standard deviation
 - For the variables were it is appropriate
 - Including the new variables you have created
5. Calculate the frequencies For the variables were it is appropriate to do so
6. Draw the histogram
 - Discuss the normality of the data
7. Are there missing data?
8. Are there outliers?

Part 2 - Format and Effort

General Formatting

- A combination sentences/paragraphs with some bullet points is appropriate.
- Include a list of references where appropriate. For this assignment, you do not need to worry about providing references to the scales/items within the dataset.

OVERALL

- Assignments will be evaluated based on the overall effort and thoroughness of the assignment, attention to details, and overall presentation of results.

Data

Purpose

These are simulated data that I created.

Variables

Name	Description	Units
id	Unique identifier for each individual participant	NA
age_years	Age in years	years
bench_press_max_lbs	1 rep max bench press in pounds	pounds
height_cm	Height in centimeters	centimeters
weight_kg	Weight in kilograms	kilograms
age_category	Age category where less than 40 years old = young and ≤ 40 years old = old	NA

Methods

Design This study used a cross-sectional survey research design to examine the differences in the associations between age, height, weight, and bench press max.

Sample The population for this study consisted of individuals residing in the St. John's area. A sample ($n = 10,000$) participants were recruited to come into the lab.

Dependent Variable Bench press max

- Bench press max was measured using a 1RM bench press test for each participant. Participants were instructed to warm up properly and completed the PAR-Q prior to beginning exercising.

Independent Variables Age

- Participants were asked their age in years, months, and days.

Height

- Height was measured using a stadiometer

Weight

- Weight was measured using a calibrated scale