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Dataset:

Dataset #1 - Foot massage and blood pressure

Non-path specific data import sequence

```r
ogdata <- read.csv("~/dataset1.csv") # file imported from working directory
```

Metadata

Summary of sampling and study design characteristics

The data used in this project was collected as part of a repeated measures design study in Japan. Data was collected from 57 Japanese adults volunteers between the age of 20 and 72 years old (two of these adults dropped out). The participants were divided into two groups where they all were subjected to aromatherapy and a control treatment in varying orders. Data for the following variables was collected in follow-up examinations 3 times over the 8 weeks.

Variables

- Participant
  - Description: Unique number assigned to each participant as an ID (e.g. 51)
  - Type: Categorical, Nominal

- sex
  - Description: Sex of participant, recorded as either "male" or "female"
  - Type: Categorical, Nominal

- group
  - Description: Treatment group assigned to participant (either "A" or "B"). Group "A" received the "intervention" treatment consisting of a 10-minute footbath, followed by a self-administered 45-minute foot massage three times a week for four weeks. Then they were subjected to a non-intervention treatment without any activities for four weeks. Group B underwent the same in reverse order.
  - Type: Categorical, Nominal

- age
  - Description: Age of participant (in years)
  - Type: Quantitative, Ratio, Continuous

- height
  - Description: Height of participant (measured in meters)
  - Type: Quantitative, Ratio, Continuous

- timepoint
  - Description: Timepoint within the 8 weeks at which the measurements were taken (either "baseline", "week 4", or "week 8")

- – Type: Categorical, Ordinal

- weight

  - – Description: Weight of the participant (measured in kg) at the given timepoint
  - – Type: Quantitative, Ratio, Continuous

- heartrate

  - – Description: Heartrate (measured in bpm) of the participant at the given timepoint
  - – Type: Quantitative, Ratio, Continuous

- sysBP_first

  - – Description: The first of two consecutive systolic blood pressure readings (separated by two deep breaths) recorded in mmHg at the given timepoint
  - – Type: Quantitative, Ratio, Continuous

- diaBP_first

  - – Description: The first of two consecutive diastolic blood pressure readings (separated by two deep breaths) recorded in mmHg at the given timepoint
  - – Type: Quantitative, Ratio, Continuous

- sysBP_second

  - – Description: The second of two consecutive systolic blood pressure readings (separated by two deep breaths) recorded in mmHg at the given timepoint
  - – Type: Quantitative, Ratio, Continuous

- diaBP_second

  - – Description: The second of two consecutive diastolic blood pressure readings (separated by two deep breaths) recorded in mmHg at the given timepoint
  - – Type: Quantitative, Ratio, Continuous

- drinking

  - – Description: Whether participants regularly engaged in alcohol consumption at the given timepoint (recorded as yes/no)
  - – Type: Categorical, Nominal

- optimist

  - – Description: Whether participants consider themselves an optimist at the given timepoint (recorded as yes/no)
  - – Type: Categorical, Nominal

Dataset Information

- Number of columns: 14
- Number of rows: 154

  - – Row #1 represents the header names

Import Confirmation Information

- Participant #16 is female, group A, 44 years of age and has a sysBP_first measurement of 99, 93, 98 mmHg at each timepoint chronologically.

Research Questions

1) How does the age (explanatory, quantitative) and sex (explanatory, categorical) of the participant affect their first baseline blood pressure reading (response, quantitative)?

2) What is the mean blood pressure of the Japanese, male population in good cardiovascular health?

3) Does the data support the alternative hypothesis that heartrate linearly decreases with age due to ventricle stiffening?