

LA Nurse BP

Case Study 1*

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Executive Summary

Here is what I did.

1 Introduction

Certain traits such as family history and mood are expected to increase one's ambulatory blood pressure (BP). Goldstein and Shapiro (2000) studied potential factors that contribute to hypertension. They collected information about the participants' BP, activity levels, work status, and mood ratings throughout the day, as well as relevant family history and information about their menstrual phases, to establish links that lead to elevated BP. Towards the end, they sought to uncover preventative measures for individuals who may be at a higher risks of developing hypertension. The objectives of this project is much simpler. I am interested in exactly what traits are *associated* with elevating one's BP, given the longitudinal structure and various time-dependent metrics in the dataset (given by Goldstein & Shapiro, 2000; cited by Roback & Legler, 2021).

1.1 Methods

2 Exploratory Data Analysis

3 Model Selection

4 Results

References

- Goldstein, I. B., & Shapiro, D. (2000). Ambulatory blood pressure in women: Family history of hypertension and personality [Publisher: Taylor & Francis _eprint: <https://doi.org/10.1080/713690197>]. *Psychology, Health & Medicine*, 5(3), 227–240. <https://doi.org/10.1080/713690197>
- Roback, P., & Legler, J. (2021). *Beyond multiple linear regression* (1st ed.). Chapman; Hall/CRC. Retrieved February 10, 2025, from <https://bookdown.org/robback/bookdown-BeyondMLR/>

*Code used for this project is available at this [GitHub Repository](#).