

Size Matters: The Impact of Leg Length and Weight on Exercise Intensity

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Fitness testing, aimed at promoting physical activity and healthy living among youth, has raised concerns globally due to fairness and appropriateness concerns. Although exercise intensity is widely studied in weight loss research, its role as a dependent variable remains unexplored. This study aims to investigate predictors affecting exercise intensity during the step test and address the need for inclusivity in fitness assessment practices in the Philippines. This study adopts a descriptive correlational design, exploring the relationship between leg length, weight, and exercise intensity during the 3-minute step test. Data was collected from 135 participants, and quantitative data on leg length, weight, and heart rate were obtained. Multiple regression and Analysis of Variance were used for data analysis, with ethical guidelines and research instrument validity established. Regression analysis showed that leg length and weight significantly influence exercise intensity while indicating a strong correlation. Approximately 86.3% of exercise intensity variability can be explained by leg length and weight. The F-value confirms the statistical significance, rejecting the null hypothesis. Leg length negatively impacts exercise intensity, while weight has a positive effect, aligning with previous research. These findings provide empirical evidence for the importance of leg length and weight in determining exercise intensity. The study underscores the significance of leg length and weight as predictors of exercise intensity during the 3-minute step test. These findings contribute to understanding the determinants of exercise intensity and highlight the importance of inclusivity in fitness assessments. However, the study has limitations, being conducted on a specific sample, and other factors may influence exercise intensity. Future research should explore additional variables and diverse groups to enhance our understanding of exercise intensity and promote equitable fitness assessment practices.

Keywords: Body Weight, Fitness Assessment, Leg Length, Step Test