

BAB V

CONCLUSIONS

This study concludes that body composition and hemoglobin levels significantly predict cardiorespiratory endurance among martial arts athletes, while motivation does not directly influence endurance outcomes. The strong correlation between BMI, hemoglobin, and motivation suggests an interdependent relationship among physiological and psychological variables. However, the physiological markers, particularly hemoglobin concentration and BMI, play a more decisive role in determining aerobic performance. These findings emphasize the need for targeted training and nutritional strategies to optimize body composition and blood oxygen-carrying capacity to enhance endurance. Further research with larger samples and more diverse athletic populations is recommended to generalize these results and explore deeper psychological dimensions that may indirectly impact physical performance. These findings may not be generalizable to non-bodybuilding athletes due to the specific demands of the sport.

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DATA AVAILABILITY

All data supporting the findings of this study are included in the article and its supplementary materials. Additional datasets are available from the corresponding author upon a reasonable request.

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CONFLICT OF INTEREST

The author hereby declares that this research is free from conflicts of interest with any party.

