

## Confidence and Exercise: Is There a Link Between Exercise and Percieved Confidence?

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# Confidence and Exercise: Is There a Link Between Exercise and Perceived Confidence?

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## ABSTRACT

High self-confidence is crucial in social, work, and academic settings. Previous research suggests that individuals with greater confidence tend to be healthier and happier. (ŞAHİN et al., 2016). **PURPOSE:** To investigate whether exercise intervention (resistance training (RT), aerobic training (AT), no exercise (NE)) could increase perceived confidence levels before an academic test. It was hypothesized that participants who exercised before the test would have higher perceived confidence levels compared to those who did not. **METHODS:** Eastern Washington University students (n=18, 12 males), between the ages of 18-40 were recruited. Participants were randomized into one of the interventions (AT, RT, NE). After the exercise intervention was completed, perceived confidence was assessed using the Rosenberg Confidence Scale and then participants completed an academic test. **RESULTS:** There was no significant difference in perceived confidence levels between the three groups (AT:  $69.3 \pm 6.22$ , RT:  $68.3 \pm 16.27$ , NE:  $75 \pm 10.94$ ) ( $p=0.588$ ). **CONCLUSION:** Overall, the results of the study did not support the proposed hypothesis, however, this study was limited in its scope, and future research could explore the effects of regular exercise on perceived confidence levels in various settings.

## INTRODUCTION

Perceived confidence refers to an individual's personal feelings and perception of self, including sense of competence, accomplishment, and ability (Kumar & Bhukar., 2016). Previous research suggests that people with greater levels of confidence experience increased happiness and improved mental health outcomes (Vella et al, 2023). Additionally, there is a potential link between fitness center attendance and confidence (Sahin et al, 2016).

## PURPOSE

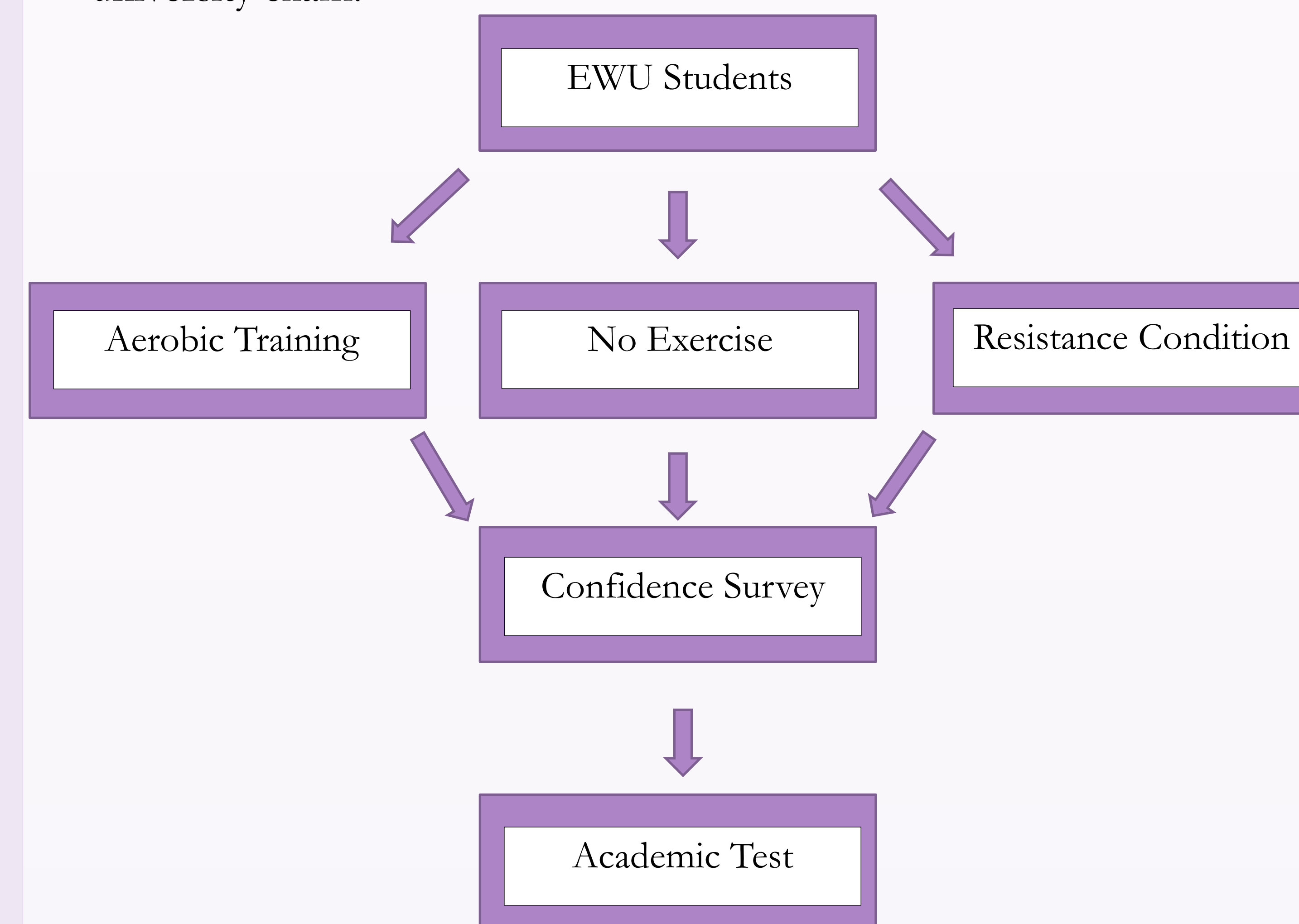
**To investigate whether an exercise intervention increases perceived confidence levels before an academic test.**

## METHODS

- Participants were Eastern Washington University students (n=18, 12 males) between the ages of 18-40.
- Prior to the intervention, participants completed a pre-questionnaire, where 6 participants reported engaging in light or no physical activity in past week, while the remaining 12 participants reported engaging in moderate or vigorous activity.
- Participants were randomly assigned to one of three interventions (RT, AT, NE)
- Participants in the RT and AT groups completed a 30-minute workout.

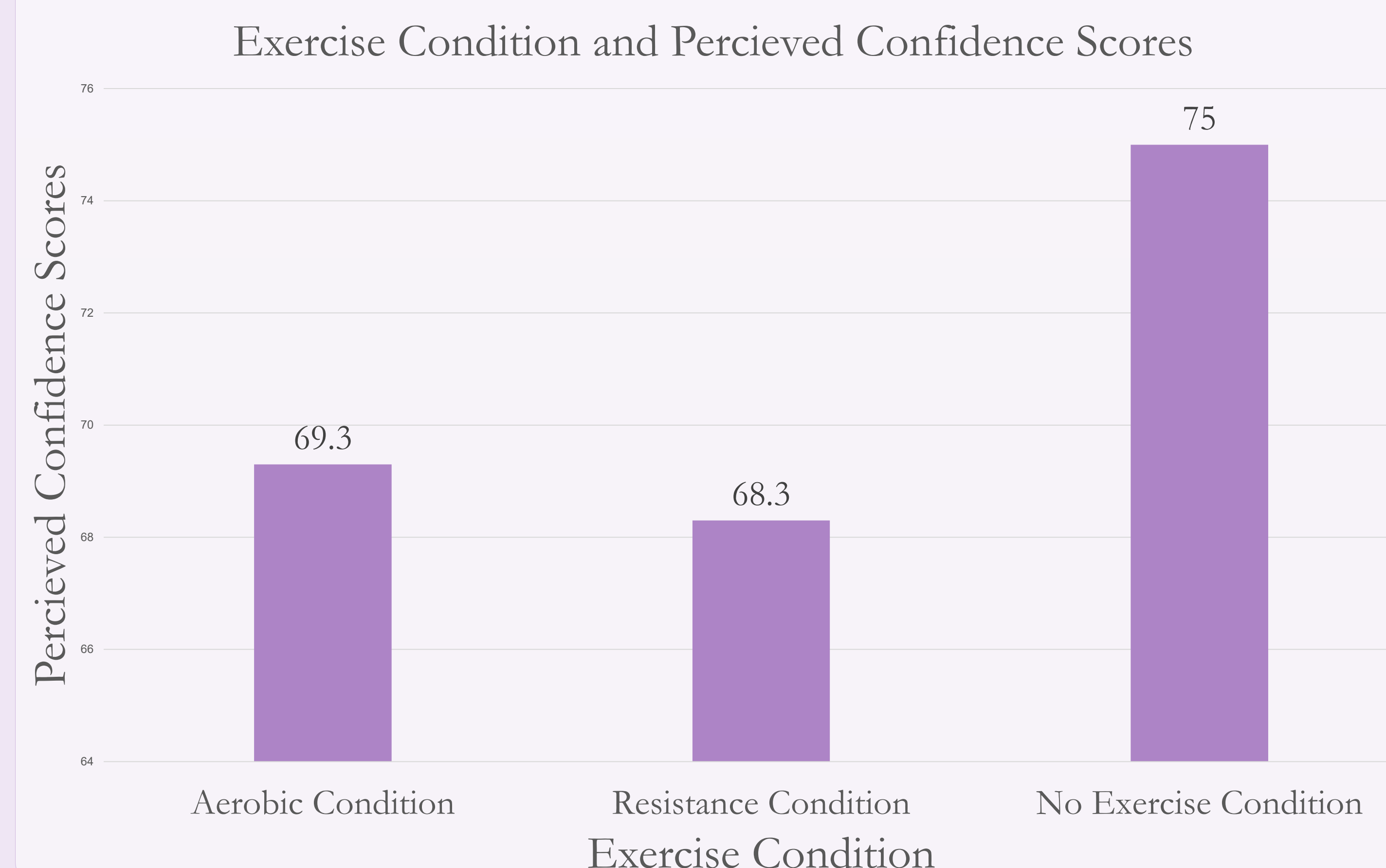
## METHODS CONT.

- After the intervention, participants completed two assessments: the Rosenberg Self Esteem Scale (Rosenberg, 1965) to evaluate perceived confidence and an academic test designed to simulate a typical university exam.



## RESULTS

- There was no significant differences in perceived confidence levels between the RT, AT, and NE groups ( $p=0.588$ ).
- There was no significant difference in academic test scores between groups ( $p=0.315$ ).



## RESULTS CONT.

- Significant correlation was found with self-reported long term exercise habits and perceived confidence ( $p=0.035$ ).
- Students who engaged in regular physical activity outside of the research study reported higher perceived confidence levels ( $73.9 \pm 9.9$ ) compared to students who did not participate in regular physical activity ( $63 \pm 12.79$ ).

## CONCLUSION

- The findings did not support the original hypothesis, indicating that no significant association was observed between short term exercise intervention and perceived confidence.
- The results suggest a potential correlation between higher perceived confidence scores and regular engagement in physical activity.
- This correlation could be explained by factors such as familiarity with exercise, better regulation of exercise intensity, personal attitudes towards exercise, or other factors.

## FUTURE RESEARCH

- Future research should continue to explore the connection between perceived confidence and exercise, both in the short and long term.
- It may also be beneficial to include a baseline confidence survey before the exercise condition to establish a unique confidence score for each participant. This may help identify any significant relationship between the two factors.

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