

EFFECT OF RAMADAN FASTING ON WEIGHT AND BODY COMPOSITION

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Background:

- Muslims observe fasting every year during the month of Ramadan.
- This practice involves abstaining from all food and drink from sunrise to sunset, for 30 consecutive days.
- Current literature has a paucity of data on the effect of fasting on weight and body composition measures.
- In this observational cohort study, we assessed the change in weight and body composition for Muslims observing fasting.

Methods:

- Weight and body composition data was collected from participants immediately before and after a 30-day fasting period (Feb 28 - Mar 29, 2025).
- Differences in normally distributed measures were tested with paired t-tests; non-normal measures used Wilcoxon signed-rank tests.

Results:

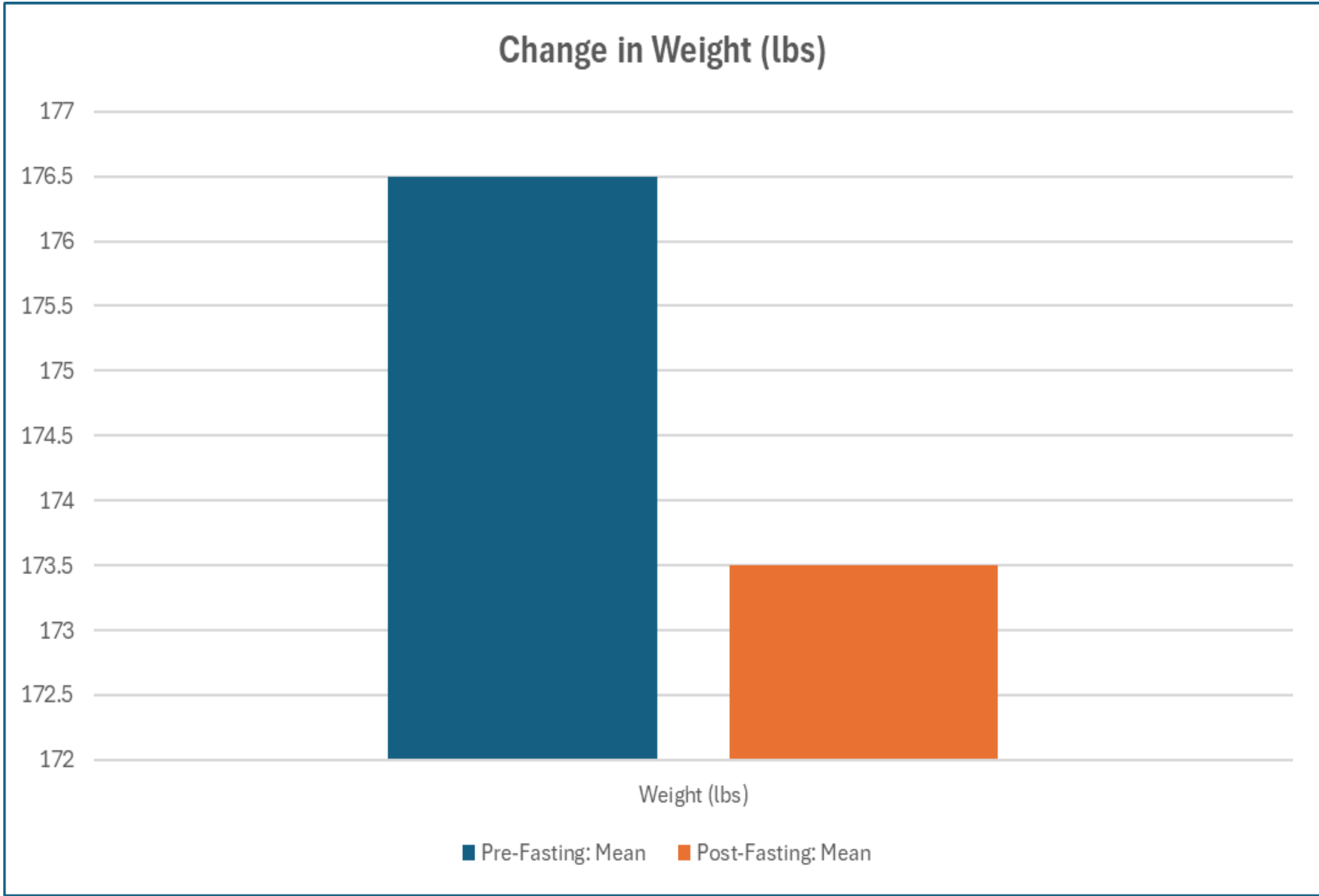


Figure 1

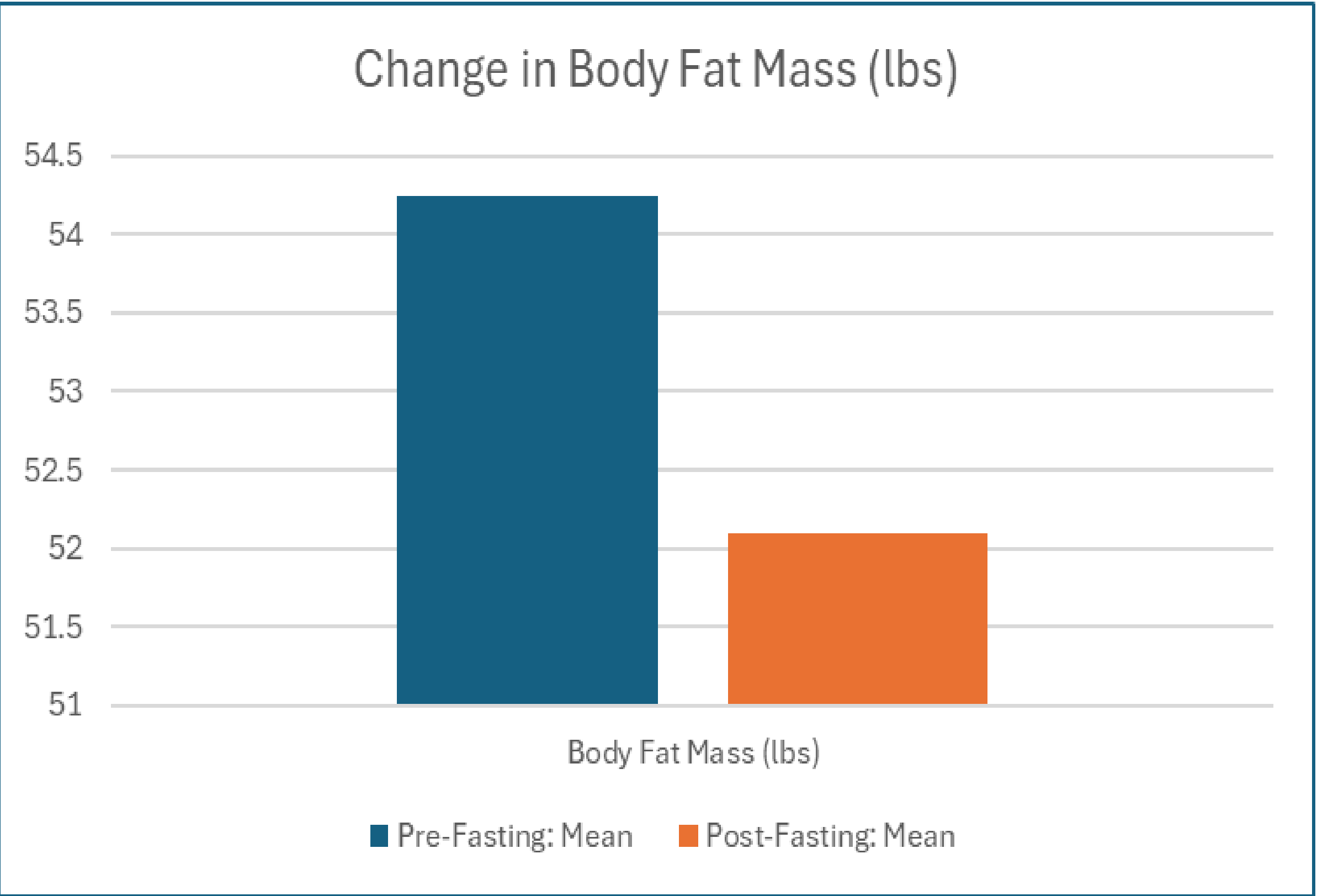


Figure 2

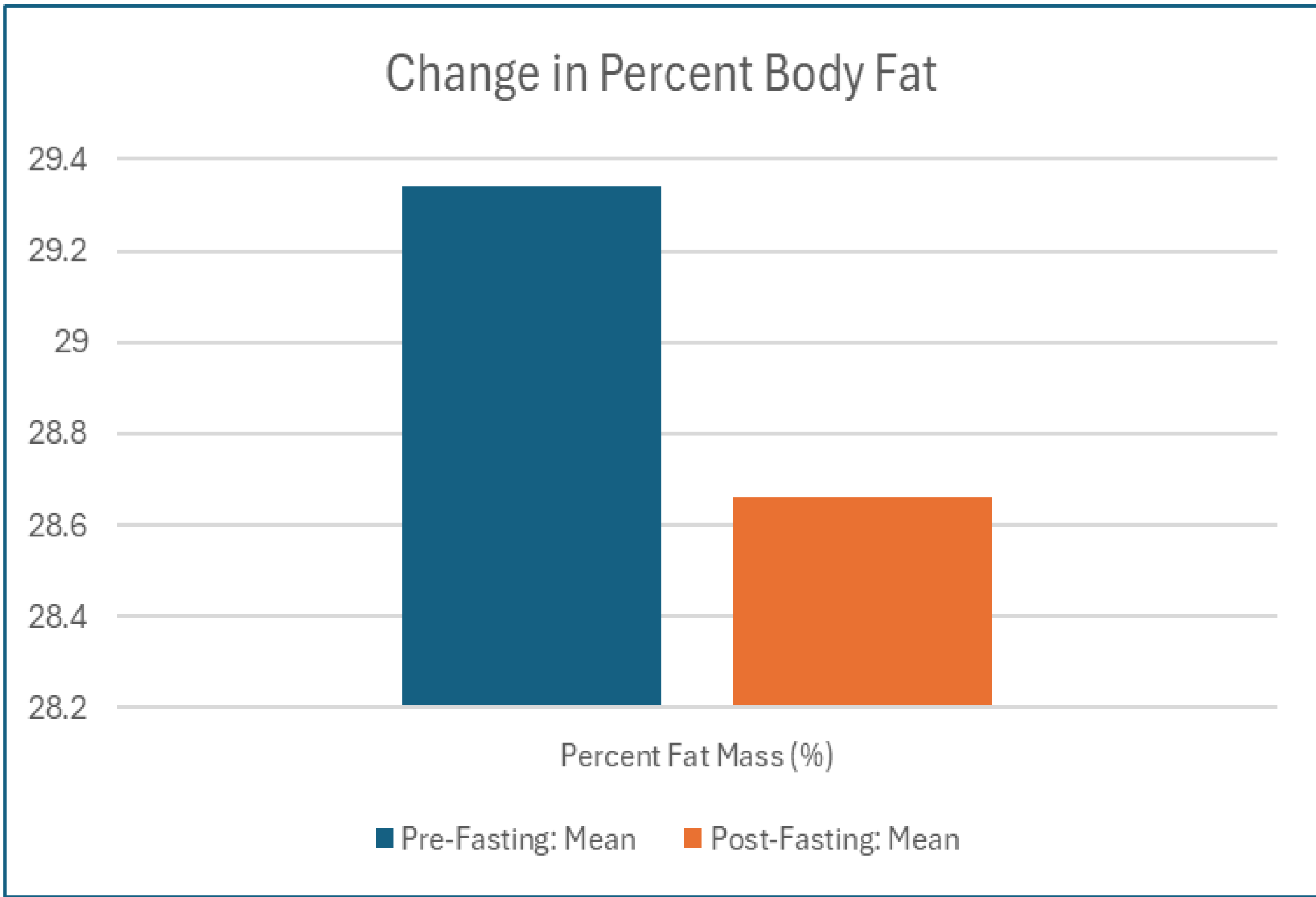


Figure 3

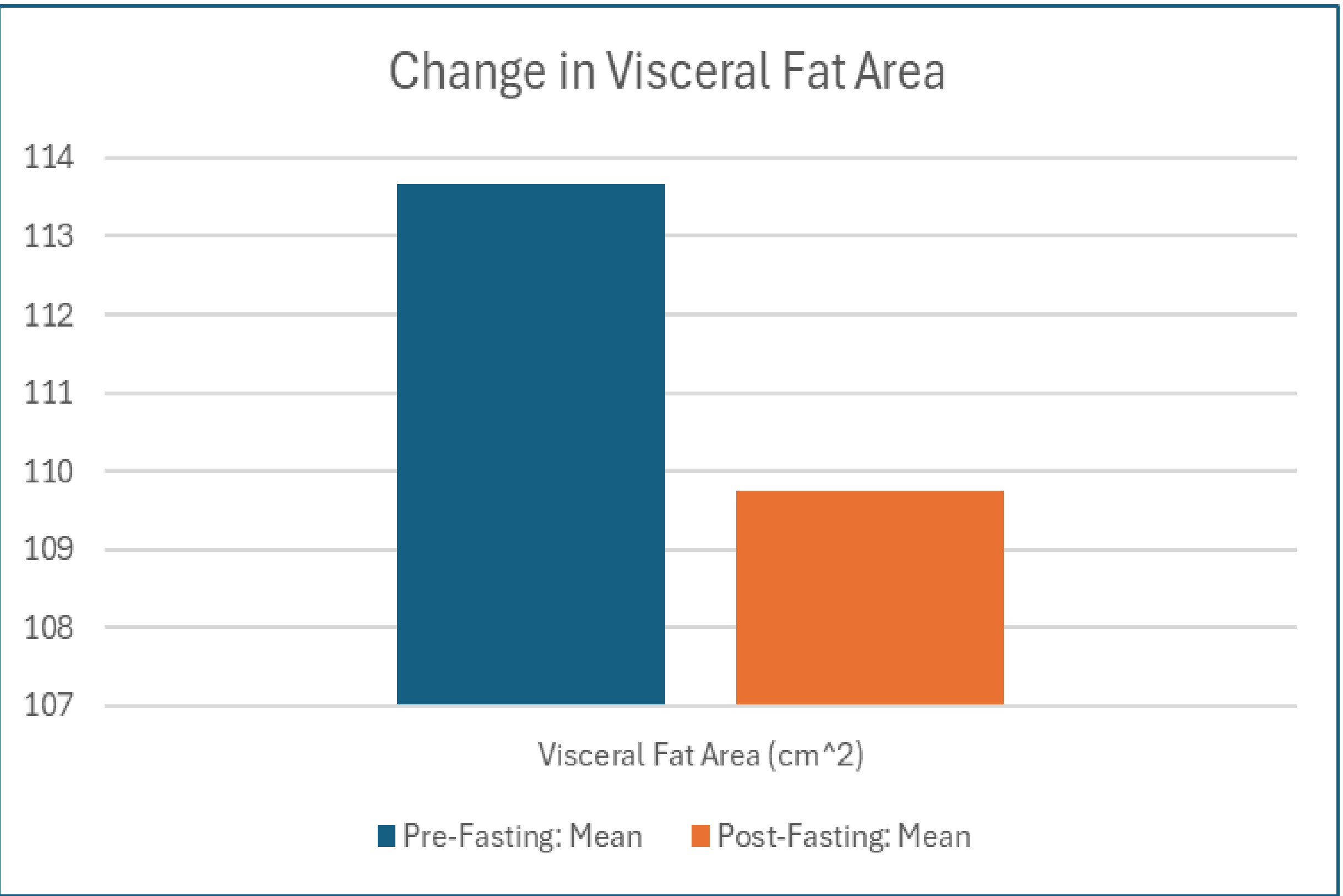


Figure 4

Conclusion:

- Ramadan fasting led to statistically significant reductions in body weight, BMI, fat mass, percent body fat, and visceral fat area, while lean body mass and total body water remained stable.
- BMR increased, the change was not statistically significant.
- Overall, fasting as a stand-alone intervention was effective at achieving weight loss, reducing body fat mass, and preserving lean muscle mass, suggesting a favorable metabolic response.
- Further research is needed to understand long-term effects and how individual factors (age, sex, baseline physiology) influence outcomes.

References

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