The caffeine supplementation in a moderate-intensity aerobic exercise in obese Asian women

Obesity prevalence has reached pandemic levels. Little is known about the effect of caffeine supplementation in the exercise program. The role of exercise in managing obesity has been suggested.

The exercise was a 45-minute exercise training at 60-75% maximum heart rate conducted thrice weekly for 8 weeks.

A
Aerobic exercise without caffeine (n = 9)

AC
Aerobic exercise with 3 mg/body weight-caffeine (n = 9)

C
no-treatment (n = 9)

Body Mass Index (BMI),
Body Fat Percentage (%BF),
Blood Cholesterol

The mixed method repeated-measured ANOVA was used to assess the effect of treatments and time (i.e., pre-test and post-test) on the outcome measures, followed by simple effect analyses with Bonferroni correction.

Significant improvement in BMI and %BF
Superseded by a time-by-treatment interaction effect.

For the time-by-treatment interaction, the cholesterol levels in the A and AC groups were significantly lower than in C, suggesting that the benefit of the exercise program is most evident in controlling cholesterol.

In conclusion, the 3 mg/kg body weight caffeine does not appear to provide additional benefit in the 8-week moderate-intensity aerobic exercise session in improving BMI, %BF, and cholesterol among obese Asian women.

Further research with higher caffeine dosage and larger and more heterogenous sample size is recommended to confirm the findings.

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