



Preliminary Finding: Effects of Sports Drink Supplementation Post Exercise on Endurance Performance

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INTRODUCTION

- Recovery is a challenge for a sportsperson who are undertaking two or more session each day and competing in a sports competition that involves multiples events (Gonzalez *et al.*,1992; Maughan & Murray, 2001; Fan *et al.*, 2020)
- Sports drinks play an important role to hydrate, restore electrolytes, glucose and other nutrients after exercise to prevent dehydration (Maughan & Murray, 2001; Nina, 2014).
- There are several previous studies reported sports drink supplementation post exercise enhanced exercise performance (Lee *at al.*, 2011; Kalman *et al.*, 2012; Abu *et al.*, 2020). However, the is scanty information on effects of sports drink post exercise on endurance performance in the field exercise test.
- The objective of this study was to investigate effects of sports drink supplementation post exercise on subsequent endurance performance in a field exercise test.

METHODOLOGY

- This study was divided into two experimental trials to investigate effects of sports drink supplementation or placebo on endurance performance in a randomized cross-over study .
- During experiment trial test, subjects ran 2.4km and followed by one hour rest before performing a shuttle run test.
- Heart rate, tympanic temperature and rate of perceived exertion (RPE) were measured at pre and post exercise.
- During recovery, subjects consumed sports drinks or placebo equivalent to 150% body weight loss. Heart rate, tympanic temperature and rate of perceived exertion (RPE) were measured at every 20 minutes during recovery. The wash out period between the trials was one week.
- Physical activities of subjects were measured by International Physical Activity Questionnaire (IPAQ).
- One-way repeated measures anova and pair t-test were used to analyse the collected data. The level of significance for all analysis was set at p<0.05.
- Data was expressed in mean ± standard deviation.

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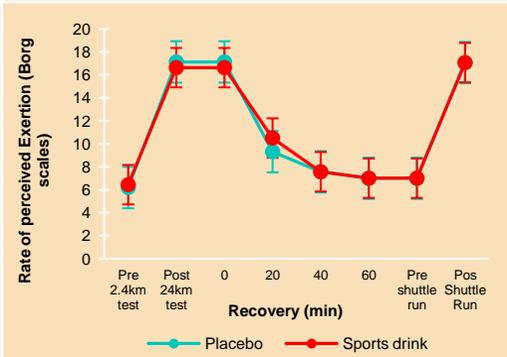
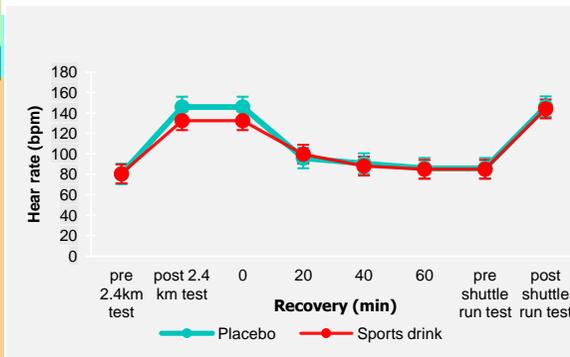
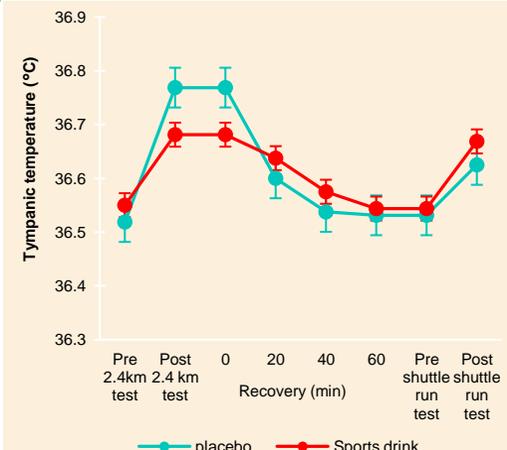
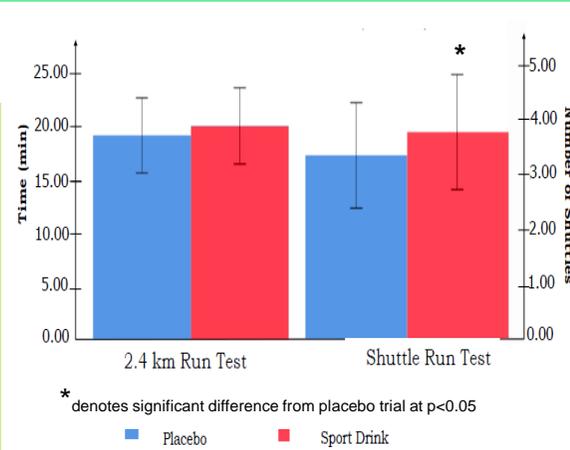
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RESULTS & DISCUSSION

- Sixteen young active subjects (age: 21.0±5.0 years, body mass index: 22.4 ±2.4 kg.m⁻²; physical activity category: 3401± 992 MET min/week) participated in this study.
- This present research found that level of shuttle run test in the sports drink trial was significant higher than placebo trial (p<0.05). This finding was agreement with previous studies also found supplementation of sports drink post exercise enhanced subsequent exercise performance (Lee *at al.*, 2011; Kalman *et al.*, 2012; Abu *et al.*, 2020)
- There were no statistically differences in the heart rate, tympanic temperature and rate of perceived exertion (RPE) between the two trials during exercise and recovery (p>0.05).



CONCLUSION

These findings reflected that sport drink supplementation seems to have enhanced subsequent endurance performance compared to placebo.