

# Associations of physical activity and fitness with stress reactivity in children aged 10-13 years

M. Mücke, S. Ludyga, U. Pühse & M. Gerber

- High stress reactivity can be detrimental for children's physiological and psychological health
- Cross-Stressor-Adaptation Hypothesis
  - Does physical activity have health-beneficial effects on stress reactivity?

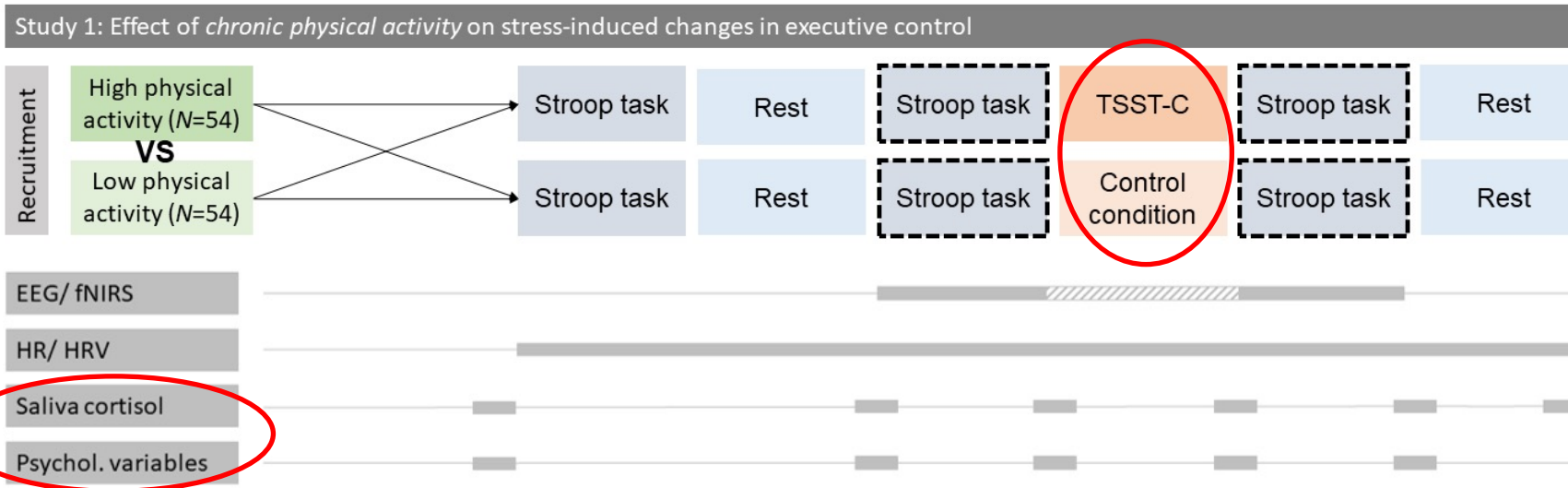
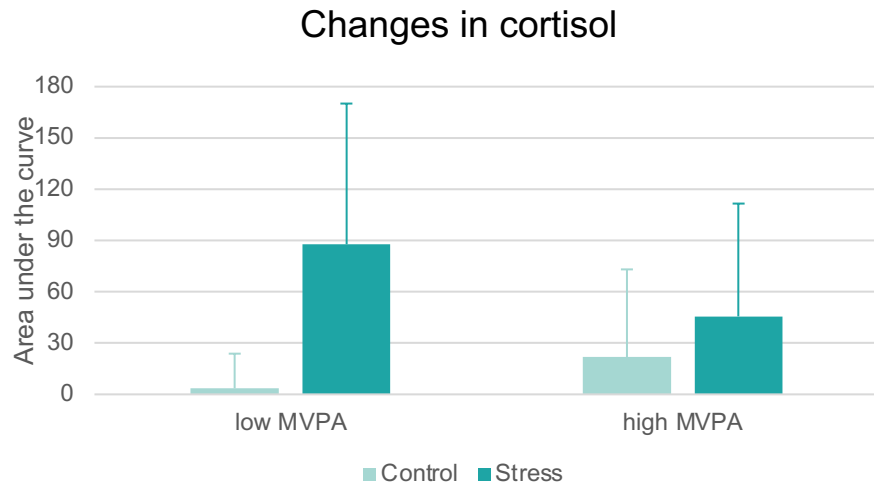


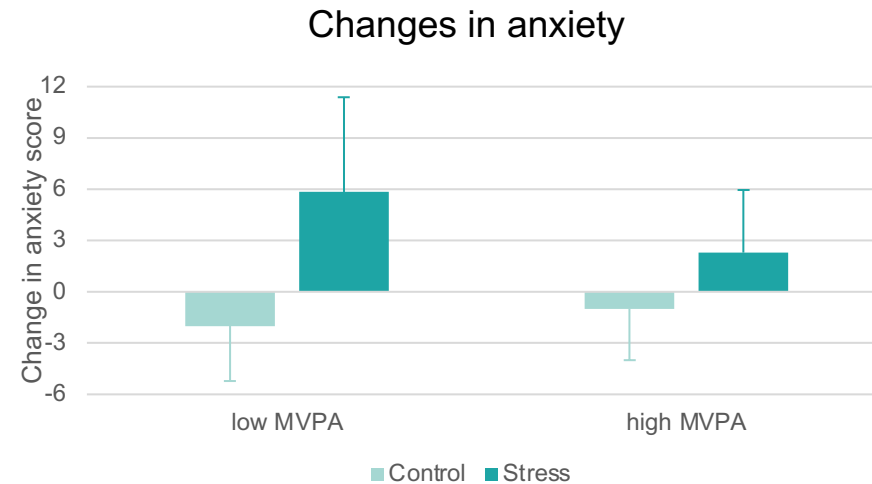
Image sources:  
 1) <https://www.humanium.org/de/mobbing-in-der-schule/asadgirlintimidationmomentonthelementaryagebullying-2/>  
 2) <https://www.welt.de/mg/wirtschaft/mobile/164992910/5952506777-ci1021-w1024/Bundesfinale-der-Mathematik-Olympiade.jpg>  
 3) <https://www.rataufdraht.at/themenubersicht/familie/hilfe-meine-eltern-streiten>

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$$F(1, 47) = 4.08, p = .049, \eta_p^2 = 0.080$$



$$F(1, 53) = 4.43, p = .040, \eta_p^2 = 0.077$$

- Preliminary results indicate association between MVPA and stress reactivity  
→ Health beneficial effect of MVPA through reduction in stress reactivity
- Neither beneficial nor detrimental effects of aerobic fitness on stress reactivity