

The Oral Microbiome and Internalizing Symptoms: A Stress Sensitization Framework



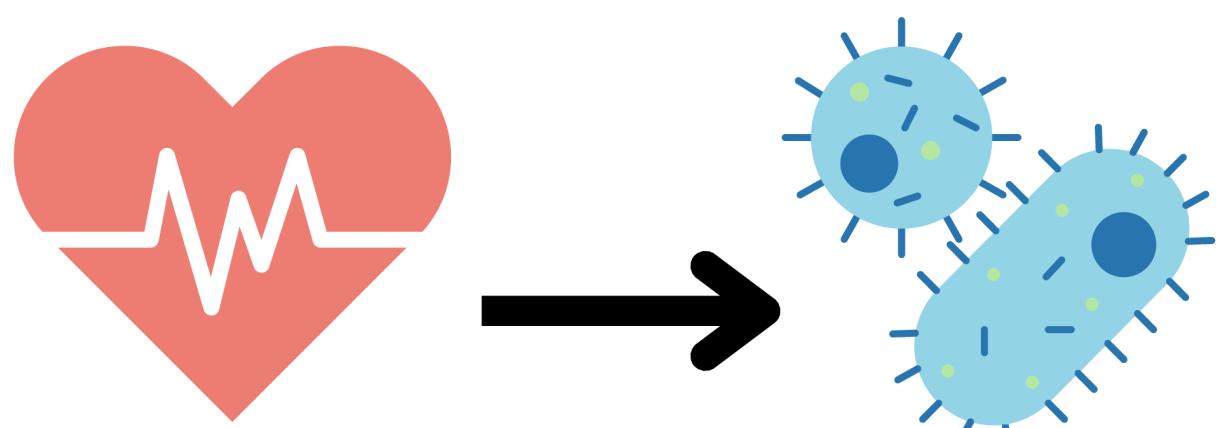
Gancz, N.N., Chan, E.M., Huang, J., Savoca, P.W., Nussbaum, S., Callaghan, B.L.

Introduction

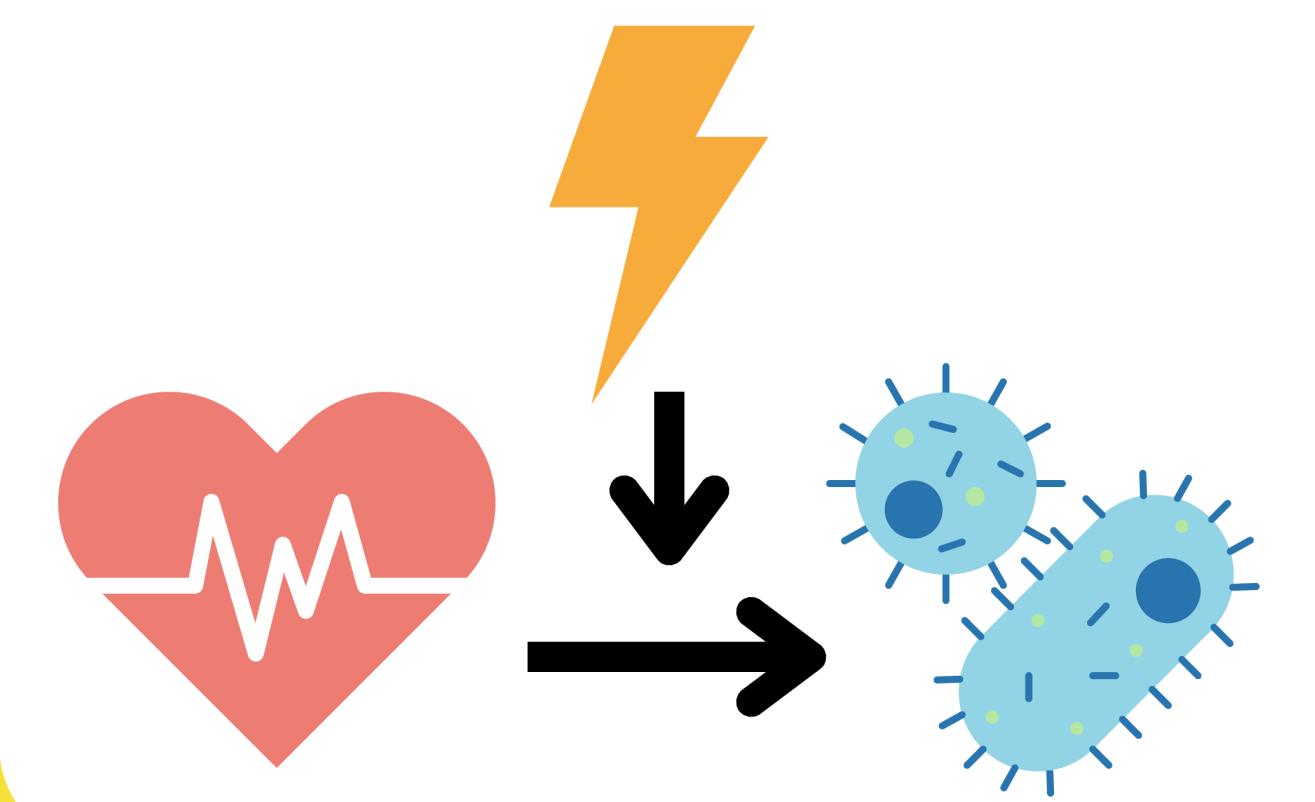
- The **oral microbiome** is linked to mental health¹⁻³
- Early adversity alters the link between the oral microbiome and **endocrine** stress markers (e.g. cortisol)^{3,4}
- However, links between **autonomic** stress outputs and the oral microbiome remain untested, as does their relationship to mental health

Aims

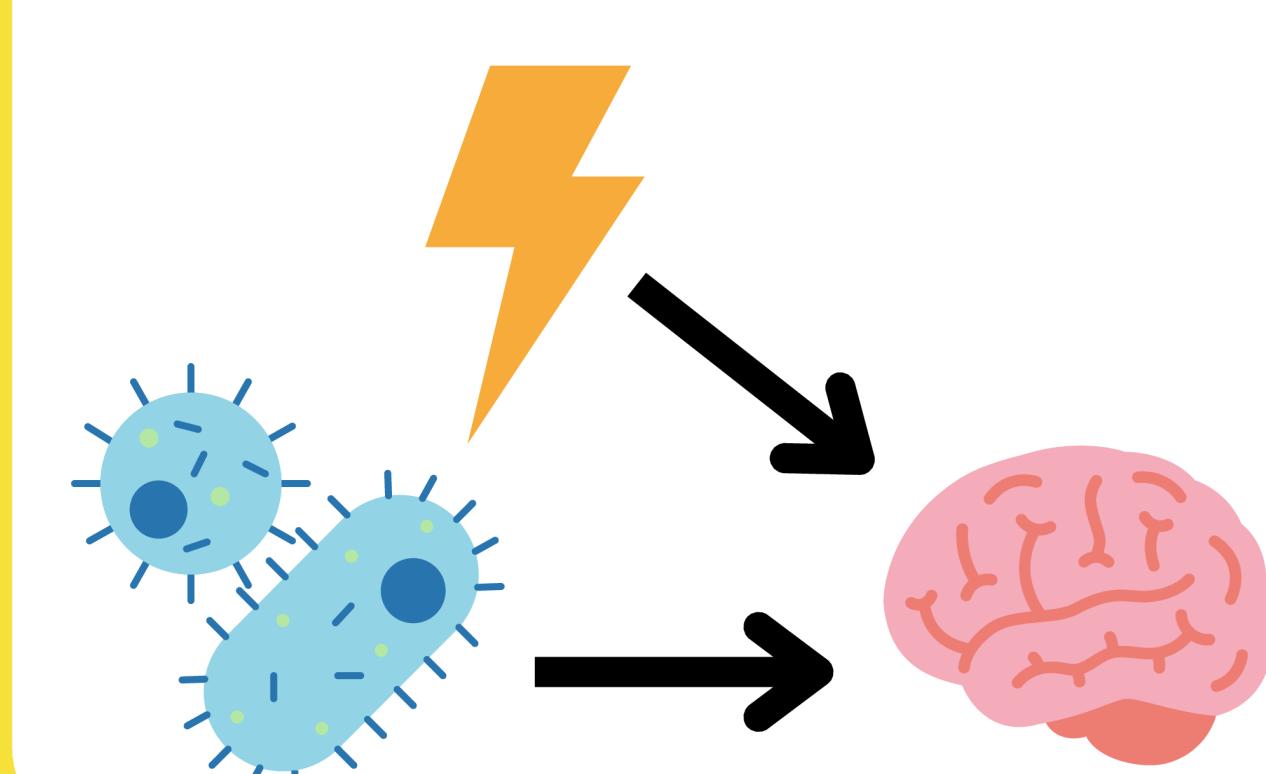
Autonomic stress reactivity --> oral microbiome composition



Main/moderating effect of early adversity



Implications for mental health



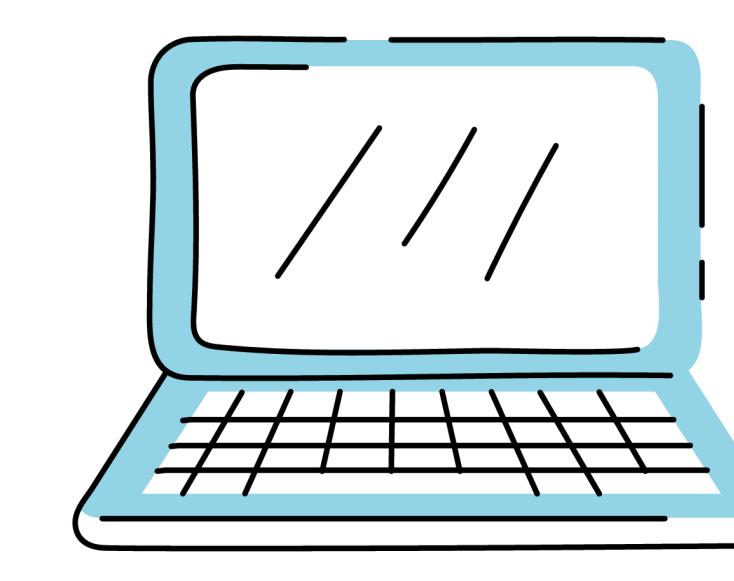
Study 1: Proof of Concept

Methods



N = 9
6-16 years

Saliva microbiome (16S)



Neutral & Scary Videos



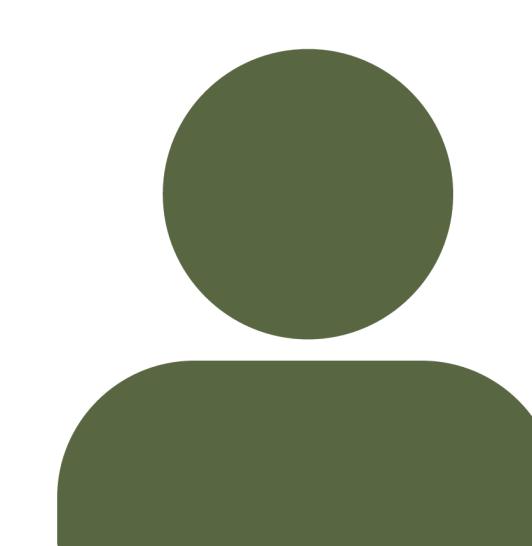
RSA



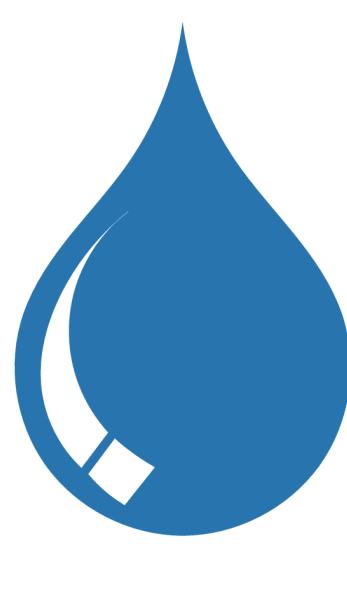
MaAslin2⁵

Study 2: In Progress

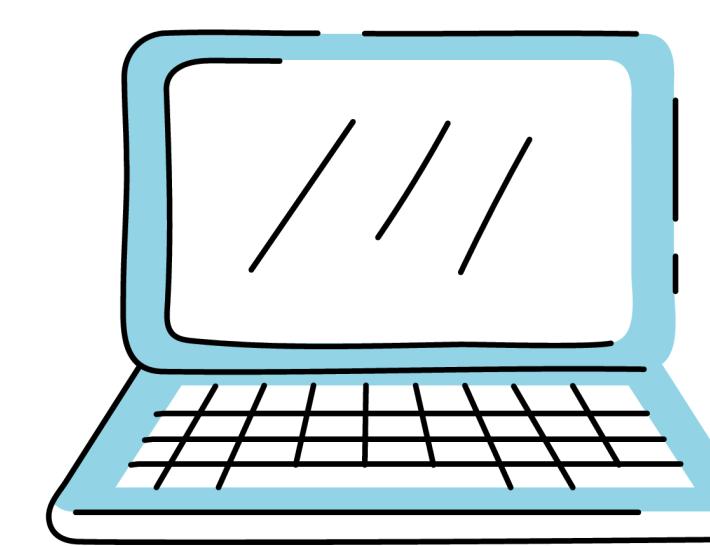
Methods



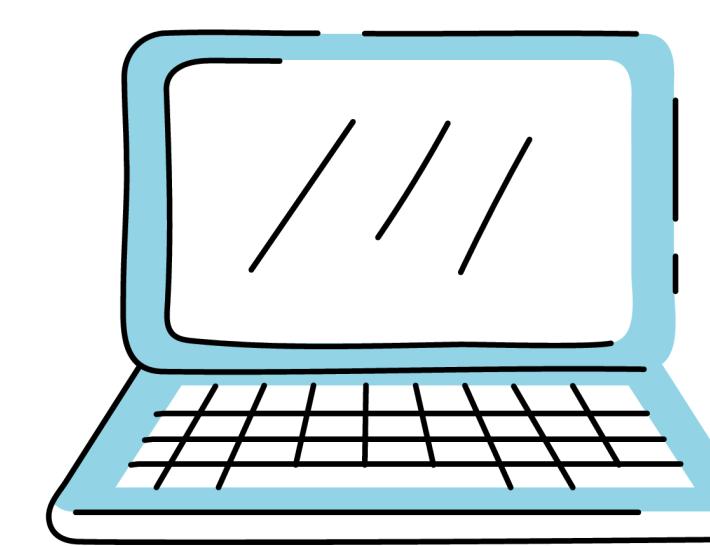
N = 86
Undergraduates



Saliva microbiome (16S)



Montreal Imaging Stress Task⁶

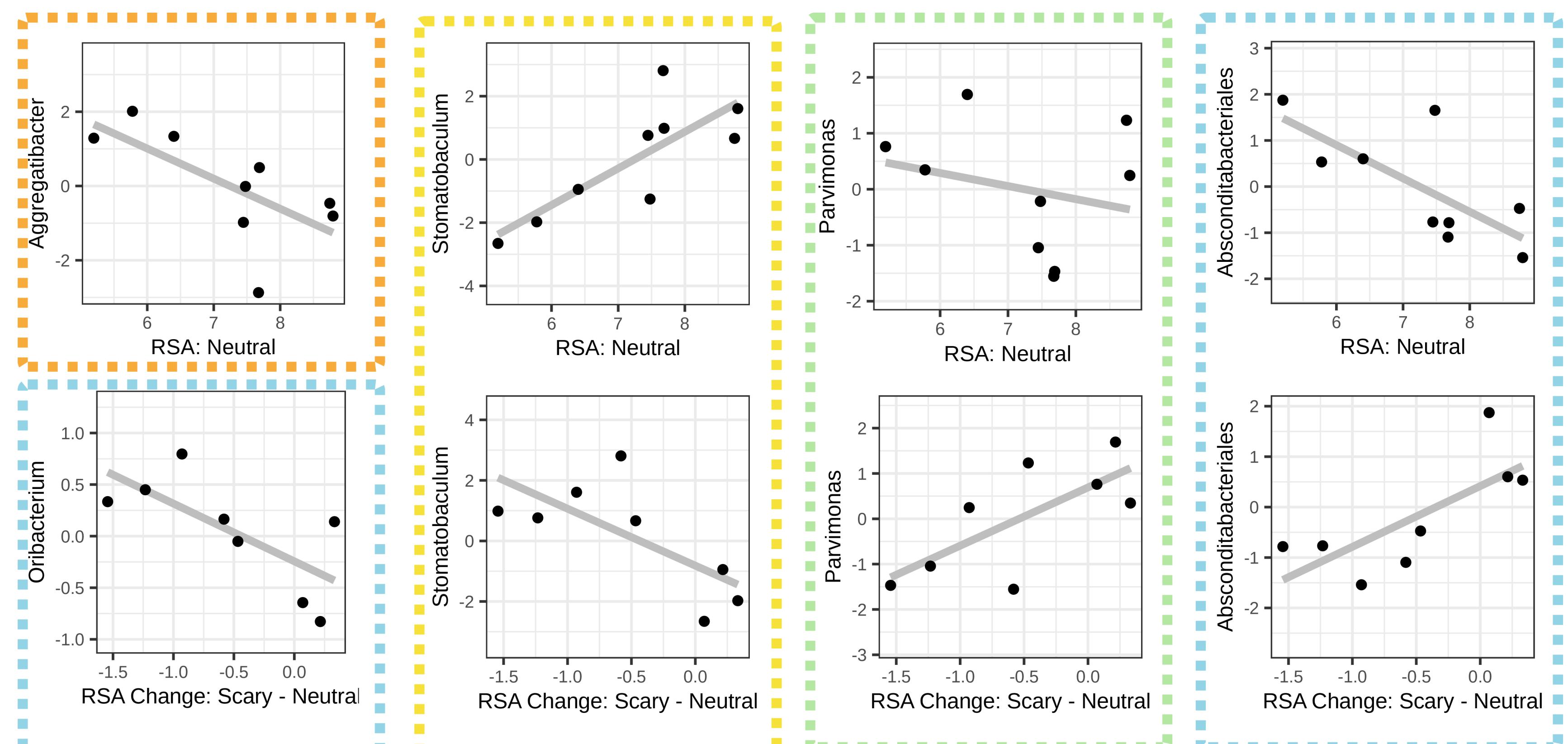


RMSSD

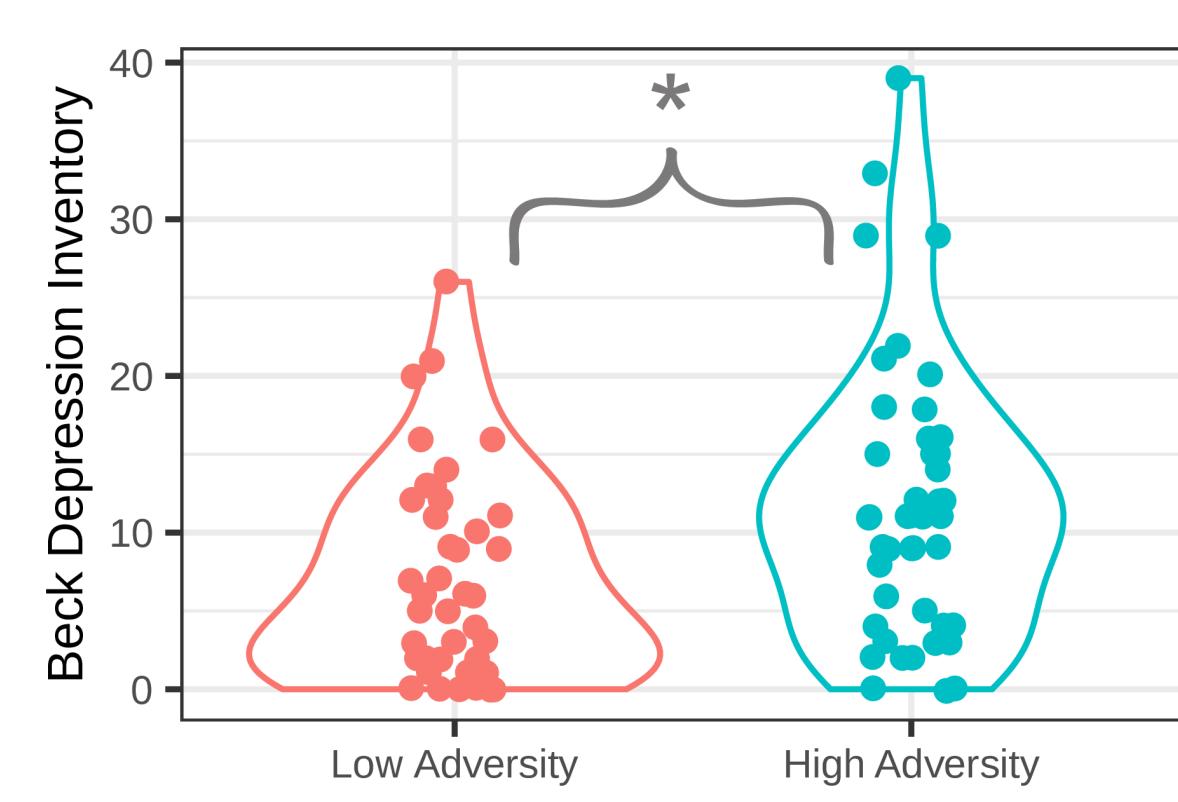
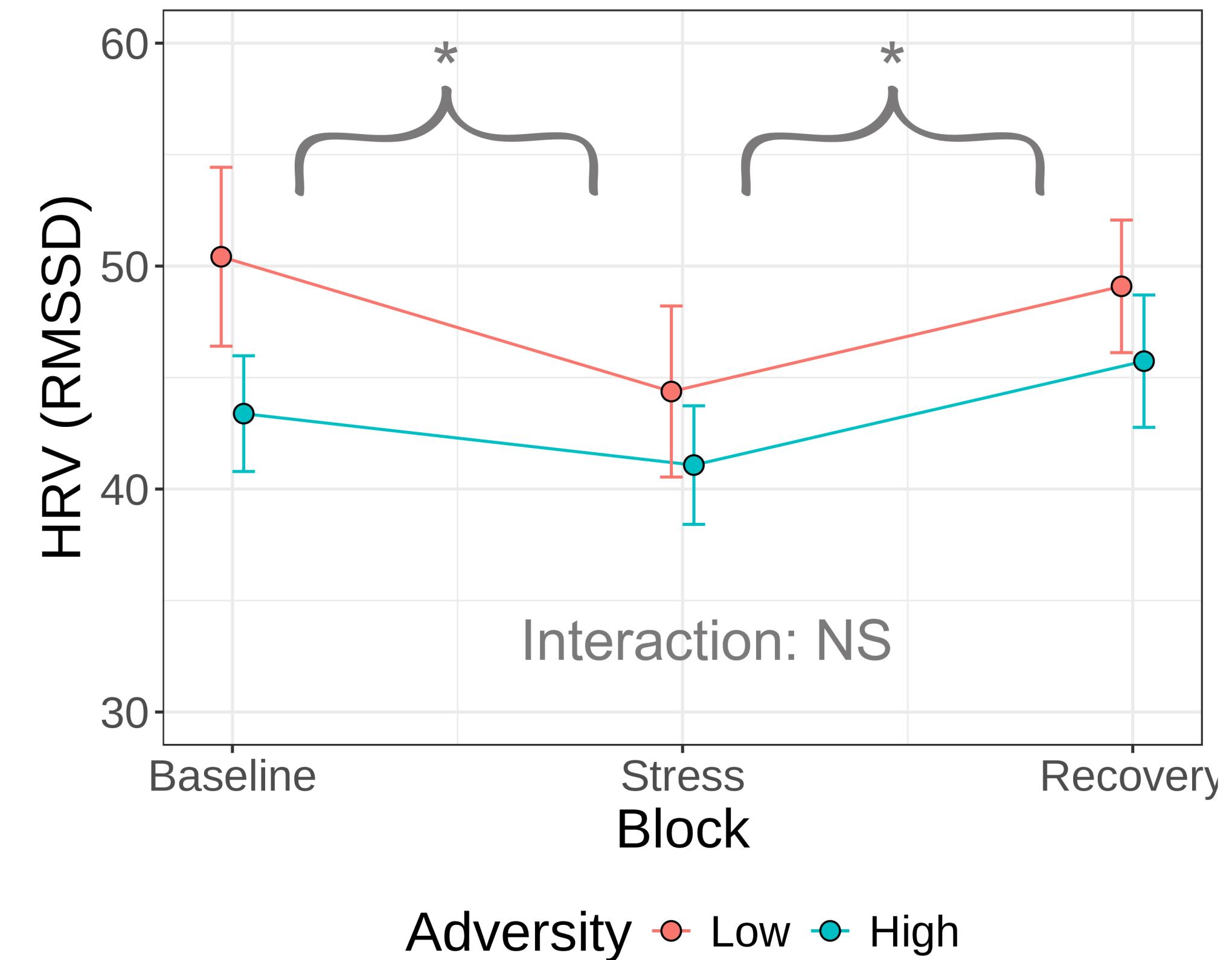


Beck Depression Inventory;⁷
Childhood Trauma Questionnaire⁸

Results



Preliminary Results



- References**
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