Gender differences in sustained attentional control are related to indices of
gender inequality across countries

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Introduction

• Executive functions (e.g., sustained attentional control and working memory) are essential to success in school and at the workplace.
• Gender differences in executive function, including a possible relationship with socio-cultural conditions, are understudied.

Methods

Participants

Exp. 1: Gradual Onset Continuous Performance Task
• The gradCPT is a 4 min modified go/no-go sustained attention task.
• Participants are instructed to respond with a key press to a city (90%) and withhold for a mountain scene (10%), emphasizing accuracy.

Exp. 2: Visual Working Memory Tasks
• Dependent variables: reaction time, coefficient of variation (standard deviation of the reaction time/mean reaction time), commission errors (pressing to a mountain), and omission errors (failing to press to a city).

Socio-cultural Indices
• Gender Inequality Index (GII)
• Human Development Index (HDI)
• Peace index
• Social Institutions and Gender Index (SIGI)
• Women in the labor force
• Poverty

Visual Working Memory
“*If the image is the same, press ‘s’ on your keyboard. If the image is different, press ‘d’."

Results (Experiment 1)

Gender differences in sustained attentional control across the lifespan

Results (Experiment 2)

• There are gender differences in sustained attentional control, but not other aspects of executive function.
• Some aspects of gender differences correlated with socio-cultural indices, suggesting a strong environmental influence on sustained attention.
• Socio-cultural conditions that promote gender equality may improve sustained attention, especially in women.

Acknowledgements

This research was supported by the Translational Research Center for TBI and Stress Disorders (TRACTS), a VA Rehabilitation Research and Development Traumatic Brain Injury Center of Excellence (B0524-C) and by Veterans Affairs Career Development Award B1’s given to JD and MF (1IK2CX000706-01A2).