Socio-Demographic Risks Affect Executive Functioning

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Introduction
- The first study wanted to find a relationship between socio-demographic risks and attentional control in infants.
- The second study wanted to find a relationship between attentional control and academic performance in order to study how infant attentional deficits can shift into adulthood.
- To measure attentional control this study used average fixation durations (the longer the average fixation duration the worse attentional control)
- Self-regulatory and protective practices of attentional control are associated with positive life outcomes from toddlerhood to adulthood, including those implicated in the academic, social, and interpersonal realms (Mischel & Ayduk, 2010).

Participants
Study 1: N = 102 3.5-month-olds
Study 2: N = 67 undergraduates

Materials
Study 1:
- Eye Tracking Stimuli
  - Human bodies, faces, and objects
- Socio-demographic Risk Score
  - Gave one point for each risk factor (minority, low maternal education, low income). The higher the score the higher the risk

Study 2:
- Self report GPA
- Eye tracking Stimuli

Procedure
- In Study 1 eye tracking and socio-demographic risk scores were used together to measure how risk and average fixation durations relate across levels of risk
- In study 2 undergraduates were asked to report GPA and complete the same eye-tracking procedure

Method

Results
Study 1
- As socio-demographic risk scores increased so did average fixation durations
- It was suggested that lower maternal education (p<.05) and family income (p<0.001) were significant risk factors associated with longer fixation durations

Study 2
- Average GPA decreased when average fixation durations increased

Conclusions
- Coming from high-risk sociodemographic backgrounds can have detrimental affects on an infant’s ability to control its attention.
- Executive control issues start early in life
- Shows possibility of attentional control issues being linked with academic performance.
- Interventions could be created to target adolescence and adults that come from high-risk sociodemographic backgrounds and suffer with multiple deficits in executive functioning.

References