Introduction

- Early experiences can have profound impacts on students’ learning trajectories (High, 2008).
- Impoverished and less educated backgrounds increase the likelihood of insufficient school readiness (Reardon, 2013).
- Further research is required on what specific aspects of early life in relation to low socioeconomic status are linked to school readiness.

Aims

- To identify specific aspects of the early environment, including cumulative biological and perceived stress and socioeconomic status, that play a role in school readiness in 3.5 year olds (N=75, 36 girls).

Measures

School Readiness was measured using the Bracken School Readiness Assessment.

Child and Parent Cumulative Biological Stress was measured through hair cortisol (15-30 mg). Samples of 3 cm hair closest to the scalp were collected and assayed (Meyer et al., 2014).

Parents’ Perceived Stress was measured using the Parenting Stress Index, 4th Edition short form (Abidin, 1995).

Income to Needs Ratio was measured using income and household composition in relation to the federal poverty level.

Parent Education Level. Parents with at least a 4-year college degree were put into one group, while those who had less than a 4-year college degree were put into the other group.

Results

- Higher Child and Parent Cumulative Biological Stress Correlated with Lower School Readiness

- Parent and child hair cortisol were negatively correlated with school readiness, meaning that higher cortisol levels were associated with lower Bracken School Readiness scores.
- Parents’ perceived stress was not significantly correlated with school readiness.

- Lower Parent Education Correlated with Lower School Readiness

- Children who had parents with at least a four-year college degree earned higher school readiness scores (t(73)=3.489, p<0.001)
- Income to needs ratio was not significantly linked to school readiness.

Discussion

- Cumulative biological stress, as indexed by hair cortisol, plays a role in school readiness even before the beginning of a formal education. Chronic early adversity takes a physiological toll and may affect cognitive development in children. The relationship between diurnal biological stress, measured by salivary cortisol, and school readiness is still unknown.

- Cumulative biological stress was negatively correlated with school readiness, while parent perceived stress did not have any correlation with school readiness. Cumulative biological stress and perceived stress seem to operate as distinct mechanisms.

- Parent education was linked to school readiness, but income to needs ratio was not. Parents who are more educated may be prioritizing education and exposing their children to more knowledge. This dissemination of knowledge by parents seems more influential for school readiness than the lack of cognitive resources in the home that may be seen in low income households.

- Children from less educated families may be at more risk regardless of household income.

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