

What's going on @ the Lifespan Centre

Lifespan Centre research on Mental Health



CIHR Funding Announcement



Lifespan Centre Productivity

\$1.43M over 5 years awarded to some Lifespan Centre members for the Brock Healthy Youth Project (BHYP)

BHYP in the top **5%** of funding awarded

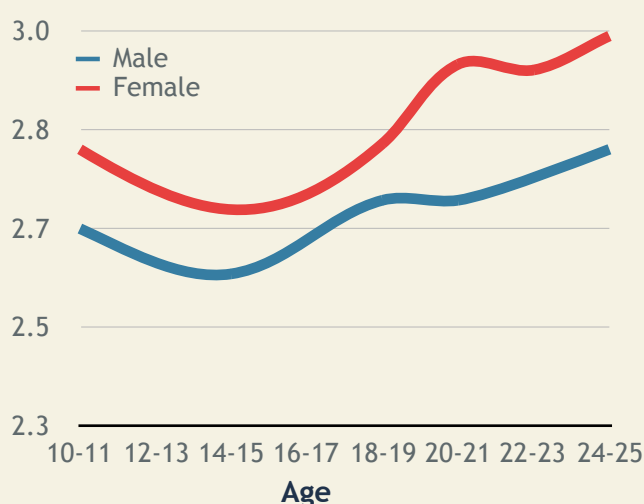
The grant was 1 of **3,813** projects submitted, of which **491** were funded



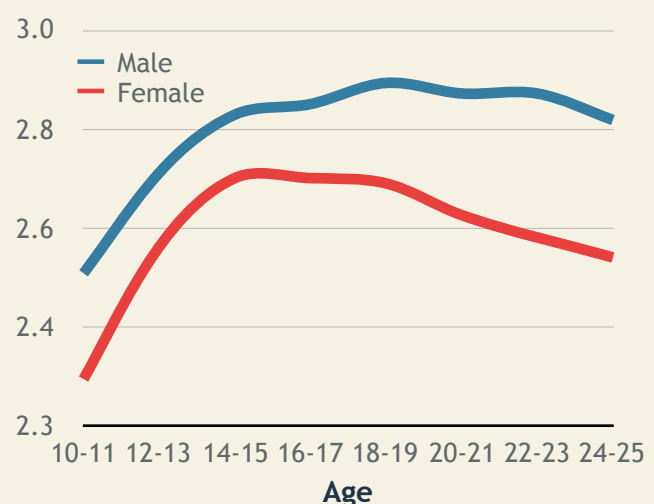
Risk-Taking propensity in adolescence - Is the pattern the same for males and females?

Lifespan Centre researchers have uncovered sex differences in the development of impulse control and sensation seeking among adolescents — two traits important in risk-taking. For example, beyond mid-adolescence, females experience a more rapid decline in sensation seeking and a more rapid increase in impulse control than males. Females also tend to peak earlier in sensation seeking than males.

Average growth of impulse control between male and female adolescents

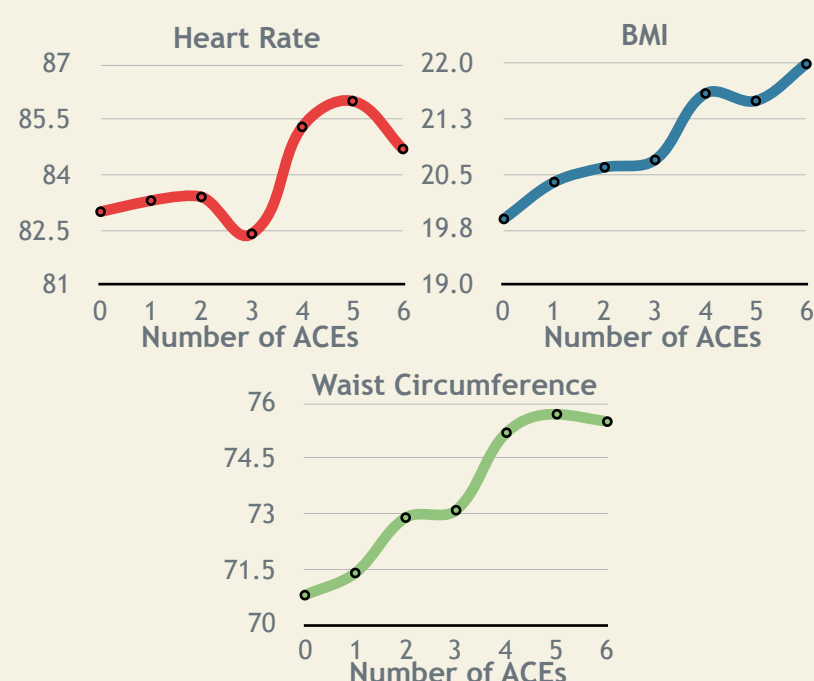


Average decline of sensation seeking between male and female adolescents



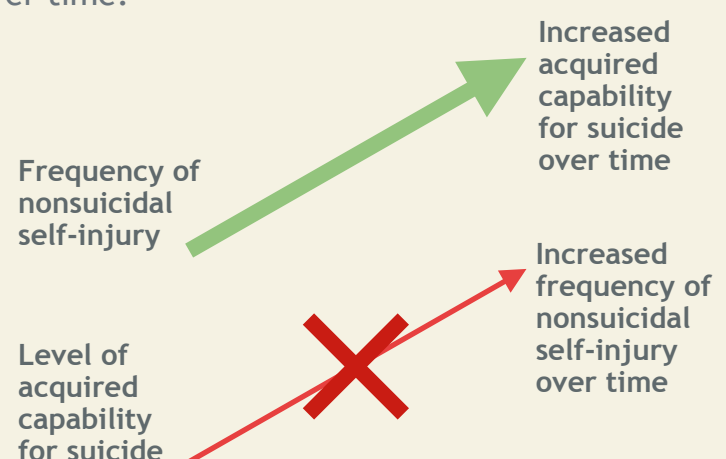
Adversity in childhood & physical health

The negative impact that experiencing adversity in childhood has on physical health may begin earlier than previously thought. Specifically, four or more **adverse childhood events (ACEs)** may increase BMI, waist circumference and heart rate among children between the ages of 11 and 14 — contributing to obesity and other health issues.



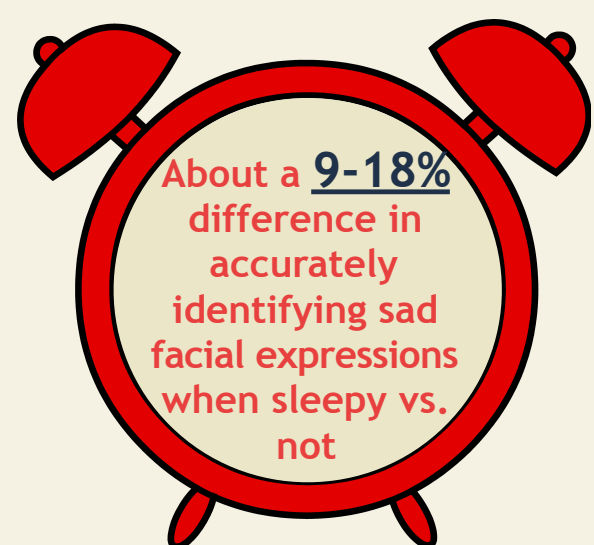
Does nonsuicidal self-injury increase acquired capability for suicide over time?

Higher frequency of past year engagement in nonsuicidal self-injury predicts increased **acquired capability for suicide** (greater tolerance for pain & less fear of death), but higher acquired capability for suicide does not predict nonsuicidal self-injury over time.



Sleep & social functioning

Being sleep deprived may uniquely impair individuals' perceptions of emotional facial expressions and emotional information, especially sadness. For sleep deprived individuals, their average accuracy score was found to be about **9-18%** lower for sad faces than found with well-rested individuals.



Want more info?

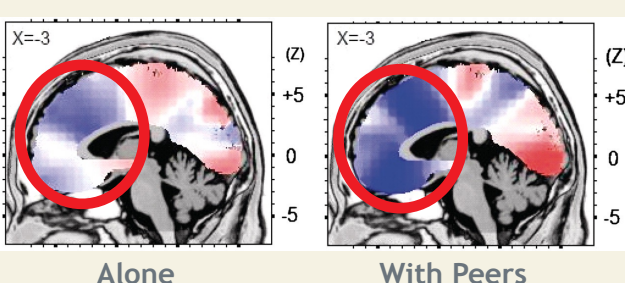


Brain activity, peers and personality: associations with adolescent risk-taking

Risk-taking has been connected to the medial prefrontal cortex (mPFC) of the brain, an area that is associated with sensation seeking. In the presence of peers, adolescents are less likely to pay attention to negative feedback than they would when alone, as shown by a weakened mPFC response when with peers.

mPFC activity is also negatively related to trait **surgency** (those high in surgency tend to engage in greater sensation seeking). Increased surgency is a stronger risk factor for risk-taking behaviours when in the presence of peers, as shown by activation of the mPFC (see figure below).

Cognitive activation (mPFC circled in red) as related to surgency scores — blue indicates a negative correlation



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