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**Presentation title:** Gender and childhood psychopathic features: The mediating role of heart rate

**Background:** Prior studies have documented the well-replicated finding that males engage in more antisocial behavior than females. However, there is limited research on what could explain this gender gap, and even less research on biological explanations. Nevertheless, low heart rate has been a well-documented biological risk factor for antisocial behaviors. This study aims to replicate and extend a previous finding that heart rate mediates the relationship between gender and antisocial behavior. While the prior study examined criminal offending in adulthood, the current study examines whether heart rate mediates the relationship between gender and childhood psychopathic features.

**Methods:** Using data from 454 children aged 11–13 years, we test the hypothesis that low heart rate partially mediates the relationship between gender and psychopathic features as measured by the Antisocial Process Screening Device. Analyses were conducted for overall child psychopathy (APSD total score) as well as its three subcomponents (scores for narcissism, impulsivity, callous-unemotional traits).

**Results:** Low heart rate partially explains the relationship between gender and child psychopathy: males are more likely to exhibit lower heart rates, which are subsequently linked to higher APSD total scores. Further analyses revealed that low heart rate partially mediates the relationship between gender and impulsivity. In other words, males are more likely to exhibit lower heart rates, which in turn are associated with higher impulsivity scores. Low heart rate fully mediated the relationship between gender and callous-unemotional traits, suggesting that males are more likely to exhibit lower heart rates, which are subsequently associated with increased callous-unemotional traits.

**Conclusions:** Findings support the notion that low heart rate is an important causal mechanism in explaining the gender difference in childhood psychopathy, thus lending additional insight into the etiology of antisocial behavior early in life. The results highlight the importance of considering gender differences in biological functioning and behavior.