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Running head: ADVERSITY ASSOCIATED WITH POTENTIATED REWARD LEARNING
VIA VENTRAL STRIATUM

Ventral striatal activity links adversity and reward processing in children

Running Title: Adversity Associated with Potentiated Reward Learning via Ventral Striatum

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Adversity impacts many aspects of psychological and physical development including reward-based learning and decision-making. Mechanisms relating adversity and reward processing in children, however, remain unclear. Here, we show that adversity is associated with potentiated learning from positive outcomes and impulsive decision-making, but unrelated to learning from negative outcomes. We then show via functional magnetic resonance imaging that the link between adversity and reward processing is partially mediated by differences in ventral striatal response to rewards. The findings suggest that early-life adversity is associated with alterations in the brain's sensitivity to rewards accounting, in part, for the link between adversity and altered reward processing in children.

Keywords: Delay Discounting, Early-Life Adversity, fMRI, Impulsivity, Ventral Striatum.

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