

Effects of Depression Risk, Reward Drive, and Recent Negative Life Events on Incentive-Related Behaviors in Healthy Children

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Maternal history of Major Depressive Disorder (MDD) and stressful life events are two major risk factors for MDD which both have been related to reduced reward responsivity in adolescents and adults. However, it is unclear whether recent negative life events and maternal MDD influence behavioral response to gain and loss of incentive within healthy school-aged children. To assess these relationships fifty healthy children aged 7-10 years, twenty-one with depressed mothers, completed both a gain and a loss probabilistic incentive learning task, along with individual difference questionnaires. In gain versions of this task, adults under acute stress or with a personal history of MDD show reduced bias towards a frequently rewarded response. A repeated measure ANOVA where change in response bias across the task served as the dependent measure indicated interactions between task (gain/loss) and both recent negative life events (maternal report) and reward drive (child self-report), but no effect of maternal MDD history or current child depressive symptoms (maternal report). Children with heightened reward drive showed greater change in response bias across the gain task while children with more recent negative life events displayed blunted responses to both gain and loss feedback independent of maternal MDD history and child symptoms.