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## Abstract

### Background

Altered reward and punishment function has been suggested as an important vulnerability factor for the development of Major Depressive Disorder (MDD). Prior ERP studies found evidence for neurophysiological dysfunctions in reinforcement processes in adults with MDD. To date, only few ERP studies have examined the neural underpinnings of reinforcement processing in adolescents diagnosed with MDD. The present event-related potential (ERP) study aimed to investigate neurophysiological mechanisms of anticipation and consumption of reward and punishment in adolescents with MDD in one comprehensive paradigm.

### Method

During ERP recording, 25 adolescents with MDD and 29 healthy controls (12-17 years) completed a Monetary Incentive Delay Task comprising both a monetary reward and a monetary punishment condition. During anticipation, the cue-P3 signaling attentional

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