REWARD SENSITIVITY AND COGNITIVE BIASES DURING ACUTE MAJOR DEPRESSIVE EPISODE WITHIN MAJOR DEPRESSIVE AND BIPOLAR SPECTRUM DISORDERS

Research objectives:
Altered reward sensitivity and cognitive biases are present in major depressive disorder (MDD; periodic depressive mood states) and bipolar spectrum disorder (BSD; depressive and elevated mood states). However, it is unknown whether a laboratory task measuring reward anticipation distinguishes depressed vs. non-depressed individuals or how the content and pattern of cognitive biases may differ in MDD versus BSD.

Methods:
MDD (n=51; 77% female; mean age=44), BSD (n=11; 55% female; mean age=34) and healthy control (HC; n=30; 52% female; mean age=34) participants completed (1) a novel incentive delay task measuring sensitivity to anticipated and obtained reward, (2) a facial emotion recognition task measuring bias and sensitivity towards emotional facial expressions and (3) a self-referential processing task measuring self-attribution and memory of positive and negative traits.

Results:
The HC group was more sensitive to anticipated reward than the MDD, \( p=.001, d=1.00 \), but not BSD, \( p=.848, d=0.23 \), group. The HC group endorsed fewer negative traits than the MDD, \( p<.001, d=2.68 \), and BSD, \( p<.001, d=3.41 \), groups. The MDD group endorsed fewer positive traits than the BSD, \( p=.008, d=-1.04 \), and HC, \( p<.001, d=-1.95 \), groups. The BSD group endorsed fewer positive traits than the HC group, \( p=.044, d=-1.00 \). The HC group recalled a smaller proportion of negative traits than the MDD, \( p=.026, d=0.58 \), but not BSD, \( p=.171, d=0.63 \), group.

Conclusions:
These findings provide evidence for common and dissociable aspects of reward sensitivity and cognitive biases in MDD and BSD with potential diagnostic and clinical relevance.