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**Title: Facial emotion labeling in unaffected offspring of adults with Bipolar I Disorder**

Background Young people ‘at risk’ for developing Bipolar Disorder have been shown to have deficits in facial emotion labeling across emotions with some studies reporting deficits for one or more particular emotions. However, these have included a heterogenous group of young people (siblings of adolescents and offspring of adults with bipolar disorder), who have themselves diagnosed psychopathology (mood disorders and neurodevelopmental disorders including ADHD). Methods 24 offspring of adults with bipolar I disorder and 34 offspring of healthy controls were administered the Diagnostic Analysis of Non Verbal Accuracy 2 (DANVA 2) to investigate the ability of participants to correctly label 4 emotions: happy, sad, fear and anger using both child and adult faces as stimuli at low and high intensity. Results Mixed effects modelling revealed that the offspring of adults with bipolar I disorder made more errors in both the overall recognition of facial emotions and the specific recognition of fear compared with the offspring of healthy controls. Further more errors were made by offspring that were male, younger in age and also in recognition of emotions using ‘child’ stimuli. Limitations The sample size, lack of blinding of the study team and the absence of any stimuli that assess subjects’ response to a neutral emotional stimulus are limitations of the study. Conclusions Offspring (with no history of current or past psychopathology or psychotropic medication) of adults with bipolar I disorder displayed facial emotion labeling deficits (particularly fear) suggesting facial emotion labeling may be an endophenotype for bipolar disorder.