Early Impulsivity in Youth at Familial Risk of Bipolar Disorder

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BACKGROUND
- Impulsivity is a core feature of Bipolar Disorder (BD)
- Impulsivity has been suggested as a possible cognitive endophenotype for BD
- Impulsivity can be measured by response inhibition in the context of emotionally salient information
- We use the Cambridge Neuropsychological Test Automated Battery (CANTAB), Affective Go/No-Go Task (AGN) to measure response inhibition in the context of emotionally salient information
- Adults with BD exhibit altered response inhibition in context of emotionally salient information
- Younger participants (≤12) in current study might explain behavioral differences not observed in previous studies
- A limitation of our study was lack of neutral stimuli

METHODS

- Affective Go/No-Go Positive Trial Example
- Affective Go/No-Go Negative Trial Example

RESULTS

- Prevalence of ADHD diagnoses in sample
- ADHD removed: significant group by age interaction remains
- Negative association between age and errors of commission for BIOS participants (p<.06), but not in CONT
- Fisher’s test, p=.03
- Correlation with Positive Affective Score
- % commission positively associated with positive affect scores in BIOS (r=.51), but not in CONT (Fisher’s test, p=.01). However, age likely driving effect. Age and positive affect negatively correlated in BIOS

REFERENCES

CONCLUSION

- Results indicate younger BD offspring exhibit more commission errors than controls.
- Results were not influenced by ADHD diagnoses.
- Finding supports response inhibition as a marker of risk for BD or future psychopathology; however, current findings suggest this effect occurring in younger at-risk BD youth
- Previous studies using ANG with at-risk BD youth found neural but no behavioral differences.
- Younger participants (≤12) in current study might explain behavioral differences not observed in previous studies
- A limitation our study had was lack of neutral word blocks
- Future studies should aim to replicate findings using other emotional response inhibition paradigms during fMRI with younger at-risk BD children