AFFECTIVE PROCESSING IN PEDIATRIC BIPOLAR DISORDER AND OFFSPRING OF BIPOLAR PARENTS

Isabelle E. Bauer1, Thomas W. Frazier2, Giovana B. Zunta-Soares1, Jair C. Soares1
1UT Center of Excellence on Mood Disorders, Department of Psychiatry and Behavioral Sciences, UT Houston Medical School, Houston, TX 77030, USA
2Cleveland Clinic, Pediatric Institute, Cleveland, OH, United States
*corresponding author: Isabelle.E.Bauer@uth.tmc.edu

BACKGROUND

- Bipolar disorder (BD) is characterized by biases towards negative emotions.
- There is little research on affective processing in youth with BD and at-risk individuals.
- Such findings may have important implications for the development of prevention and intervention strategies.

OBJECTIVES

- Determine whether youth with BD displayed comparable or more severe manifestations of affective bias relative to healthy BD offspring, BD offspring with psychiatric disorders, and healthy controls.

METHODS

- 64 children and adolescents including:
  - 18 individuals with BD (with depressive symptoms)
  - 13 unaffected BD offspring
  - 10 BD offspring with psychiatric disorders other than BD
  - 23 healthy controls (HC)
- HC and clinical groups were demographically well-matched.
- Clinical groups were drawn from a pool with first-degree relatives with BD.
- All participants performed the Affective Go/No-Go (AGN) and Rapid Visual Processing (RVP) tasks of the Cambridge Neuropsychological Test Automated Battery (CANTAB).
- RVP is a non-affective analogue of the AGN task.
- Clinical measures collected prior to the cognitive assessment.

RESULTS

<table>
<thead>
<tr>
<th></th>
<th>HC</th>
<th>BD</th>
<th>Affected BD offspring</th>
<th>Unaffected BD offspring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>12.78±3.08</td>
<td>13.7±2.51</td>
<td>11.56±3.18</td>
<td>11.34±2.97</td>
</tr>
<tr>
<td>Gender (F)</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Education (years)</td>
<td>6±2.82</td>
<td>6.5±3.57</td>
<td>5±3.39</td>
<td>4.71±2.97</td>
</tr>
<tr>
<td>WRAT</td>
<td>118.56±17.08**</td>
<td>92.7±8.85***</td>
<td>95±9.055</td>
<td>113.55±17.05 &lt;.001</td>
</tr>
<tr>
<td>CDRS</td>
<td>17.63±1.34***</td>
<td>33.9±17.28***</td>
<td>23.57±5.28</td>
<td>18.33±2.25 &lt;.001</td>
</tr>
<tr>
<td>YMRS</td>
<td>.57±1.01***</td>
<td>6.86±5.69***</td>
<td>8.78±8.63</td>
<td>2.26±4.83 &lt;.001</td>
</tr>
</tbody>
</table>

CONCLUSIONS

- There is no evidence of a specific negative bias in either youth with BD or BD offspring.
- The faster latencies and higher number of errors in youth with BD suggests dysfunctional processing of affective information.
- The faster latencies in affected BD offspring may indicate increased efficiency in processing affective stimuli.
- Major methodological limitations include the absence of a neutral condition and the small n of the BD offspring groups.

REFERENCES


ACKNOWLEDGEMENTS

This research was funded by NIMH R01085667, Pat Rutherford, Jr. Endowed Chair in Psychiatry (UT Medical School) grants to J.C.S.