Externalizing Mental Health Issues in Children and Youth with Multiple Early Risks

Ritter, C.1, Lebel, C.2, Kar, P.2, Gibbard, B.2, Tortorelli, C.3, & McMorris, C.A.1,3

1 Werklund School of Education, University of Calgary (Calgary, AB Canada)
2 Cumming School of Medicine, Department of Radiology, University of Calgary (Calgary, AB Canada)
3 Cumming School of Medicine, Department of Pediatrics, University of Calgary (Calgary, AB Canada)
4 Executive Manager, Calgary and Area Child and Family Services

Introduction

- Prenatal alcohol exposure (PAE) is the leading preventable cause of developmental disorders and intellectual disability in the developed world and affects 2-5% in children in the North America.1
- Other factors, including timing of the exposure, dosage, and pre- and postnatal environmental conditions (i.e., neglect, poverty, maltreatment, and being witness to violence, etc.), also influence developmental outcomes in children with prenatal exposures and has not been investigated thoroughly before. 2,3
- Children exposed to early risk are at increased risk for experiencing mental health issues. Additionally, children with multiple postnatal risks are at an increased risk for having an internalizing mental health diagnosis.4,5
- The present study aims to determine whether children with pre- and post-natal risks have unique mental health profiles compared to those with prenatal exposures alone.

Research Objectives

Question:
- What are the mental health profiles of children who experience both prenatal and postnatal risks, as measured on the BASC, MASC, and CDI.

Hypothesis:
- Children and youth who have experienced both pre- and post-natal risks will have significantly greater mental health issues than children with prenatal risks alone.

Methods

Protocol:
- Children and youth 7-15 complete cognitive and mental health assessments.
- Documentation regarding pre- and post-natal risks is collected from families.

Participants are currently being recruited from:
- Calgary and Region Child and Family Services
- FASD parent support groups
- Cumulative Risk Diagnostic Clinic (CRDC)

Inclusion Criteria:
- Confirmed documented early exposures between 7 and 15 years of age
- English as primary language

Exclusion Criteria:
- Diagnosis of:
  - a neurodevelopmental disorder (e.g., ASD)
  - epilepsy
  - major medical illness
  - genetic abnormalities
  - premature

Participants
N = 25
Mean = 10.93 years, SD = 2.58
Range = 7 y 11 m – 15 y 11 m

Clinical Outcomes
52% diagnosed with FASD
72% diagnosed with ADHD

WASI FSIQ: Mean = 89.31, SD = 8.71

Sample Characteristics

Percent of Sample Exposed to Other Early Risks

<table>
<thead>
<tr>
<th>Early Risks</th>
<th>Percent of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Mental Health Issues</td>
<td>55%</td>
</tr>
<tr>
<td>Toxins (e.g., alcohol, drugs, etc.)</td>
<td>53%</td>
</tr>
<tr>
<td>Parental Mental Health Issues</td>
<td>66%</td>
</tr>
<tr>
<td>Child Abuse/Neglect</td>
<td>55%</td>
</tr>
<tr>
<td>Education Issues</td>
<td>36%</td>
</tr>
<tr>
<td>Substance Use</td>
<td>58%</td>
</tr>
</tbody>
</table>

Results

- Significant difference was found, p < .05, on all subscales of the BASC-2 parent report between those diagnosed with FASD (n = 13) and those without a diagnosis (n = 12) collapsed into 2 groups.

Conclusion

- Mental health issues are highly prevalent in children and youth prenatally exposed to alcohol as expected.
- Internalizing outcomes were significantly less endorsed than externalizing or behavioral symptoms.
- Externalizing outcomes are more severe in children with both pre- and post-natal risks.
- Further research is needed to clarify the cumulative impact of multiple risks on mental health and neuropsychological functioning.
- Limitations of the current investigation include small sample size, and variability in completed measures across participants.

References:

2. Roozen et al., 2016. Can J Disabil Res. 41:77-78
3. Fuchs et al., 2014. Public Health Agency of Canada
4. Afifi et al., 2014. CMAJ. 186(15):1457-1463
5. Afifi et al., 2016. CMAJ. 188(10):693-698
7. Tortorelli et al., 2013. Public Health Agency of Canada

CONTACT INFORMATION: camcmorr@ucalgary.ca

Funded by the Addiction and Mental Health Strategic Clinical Network Grant.