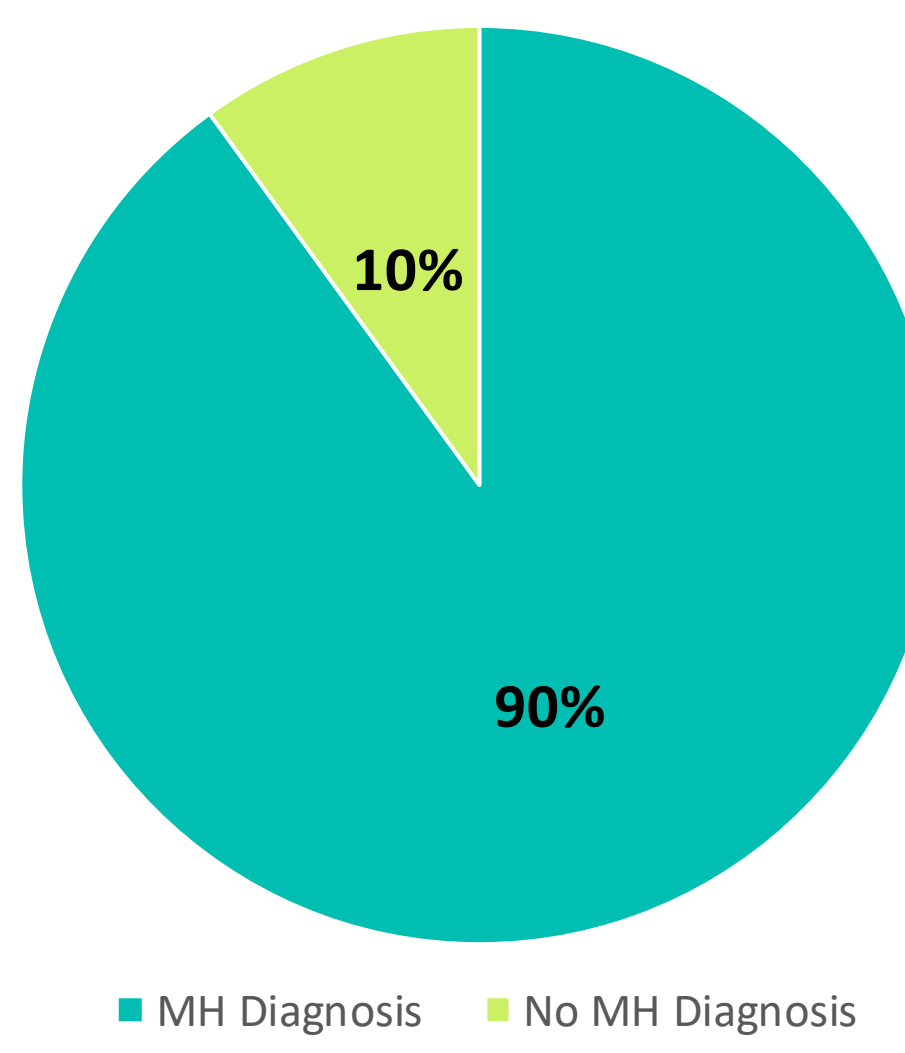


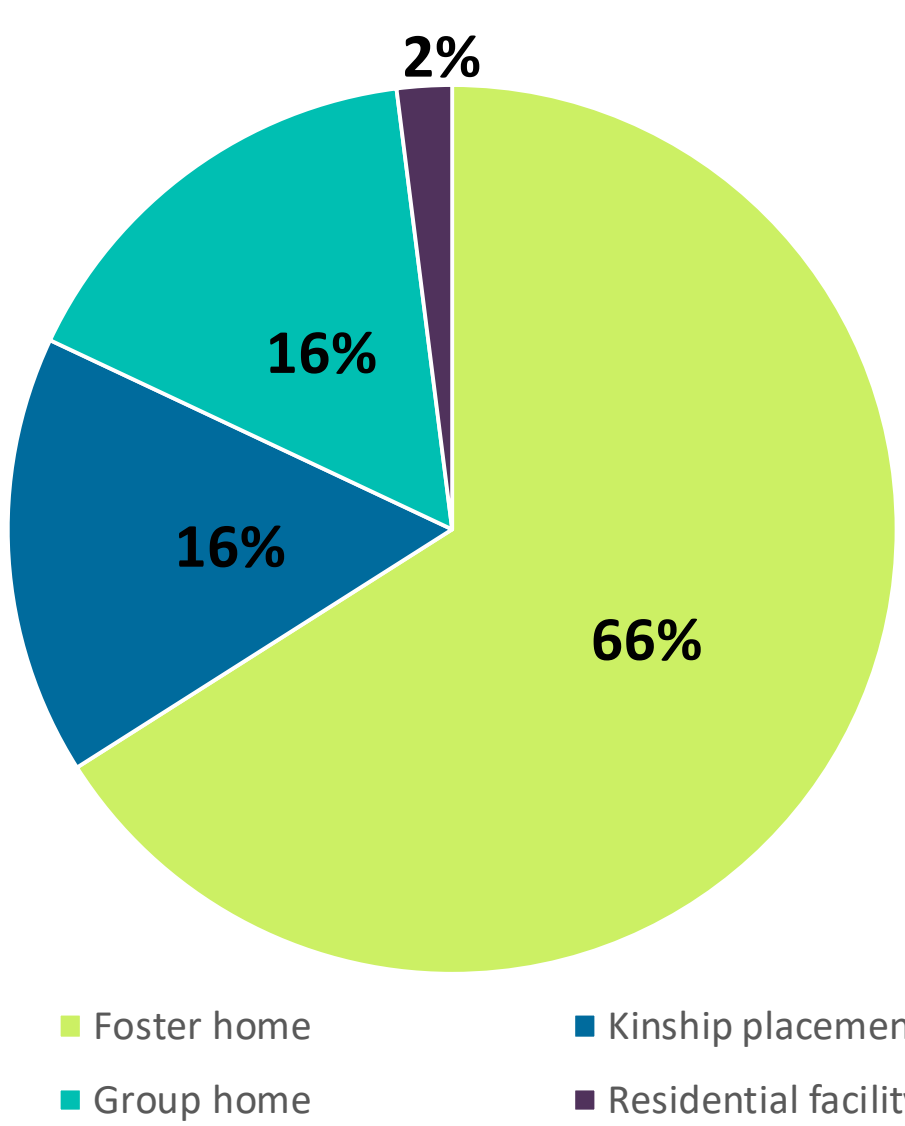
Introduction

- 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.

Co-Occurring Mental Health in FASD⁶



Placement of Children with FASD⁷



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 postnatal 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/document ed 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

Measures

Standardized Measures

- Weschler Abbreviated Scale of Intelligence – Second Edition (WASI)
- Behavior Assessment System for Children, Second Edition (BASC-2) – Parent Report
- Multidimensional Anxiety Scale for Children - Second Edition (MASC-2) – Parent Report
- Children's Depression Inventory 2 (CDI) – Parent Report

Risk

Prenatal Risks:

- Other noxious substances (i.e., street drugs)
- Maternal mental health disorders
- Toxic stress (e.g., exposed to violence, transience, poor prenatal care, etc.)

Postnatal Risks:

- Caregiver mental health issues
- Toxic stress (e.g., abuse, exposed to violence, neglect, etc.)
- Other (any instance not accounted for in other categories)

Sample Characteristics

Participants

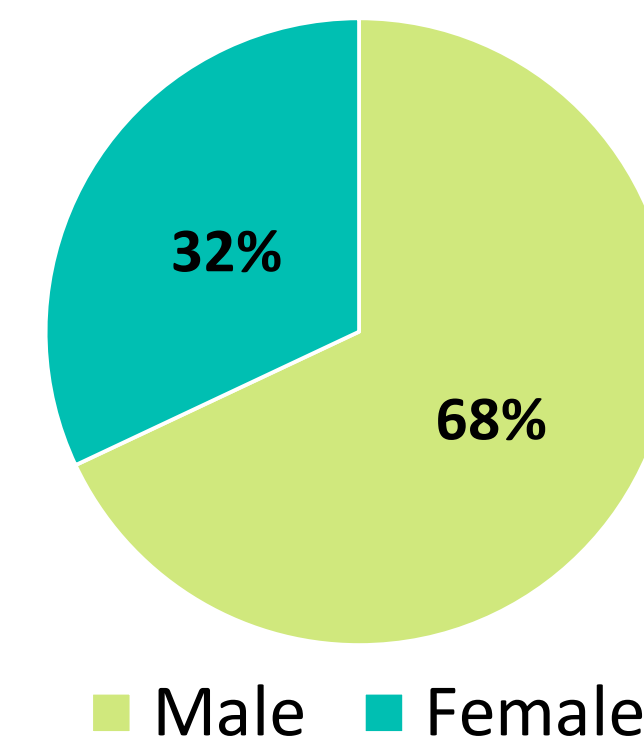
N = 25
 Mean = 10 y 5 m,
 SD = 27.81 m
 Range = 7 y 11 m – 15 y 11 m

Clinical Outcomes

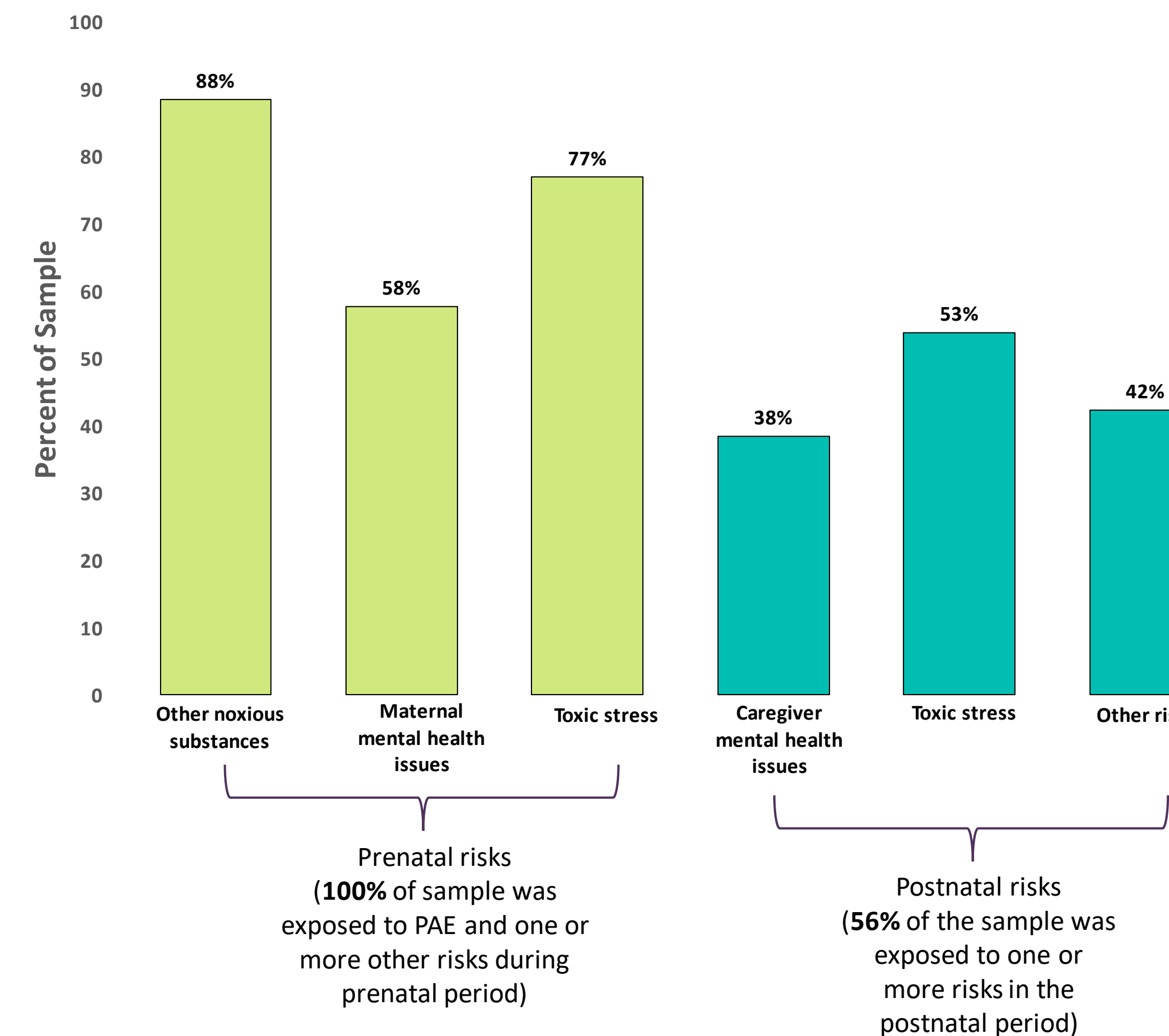
52% diagnosed with FASD
 72% diagnosed with ADHD

WASI FSIQ:

Mean = 89.31; SD = 8.71



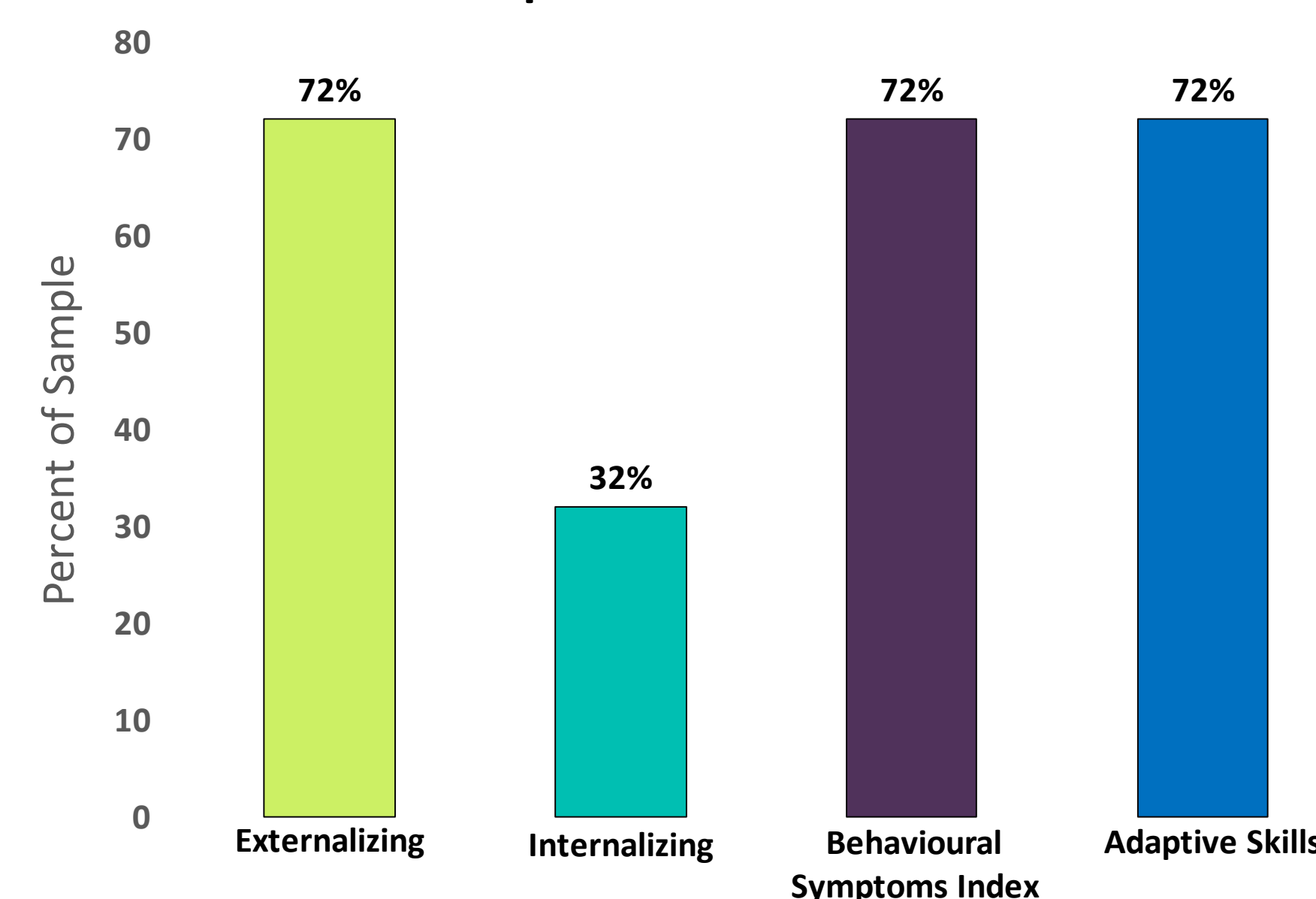
Percent of Sample Exposed to Other Early Risks



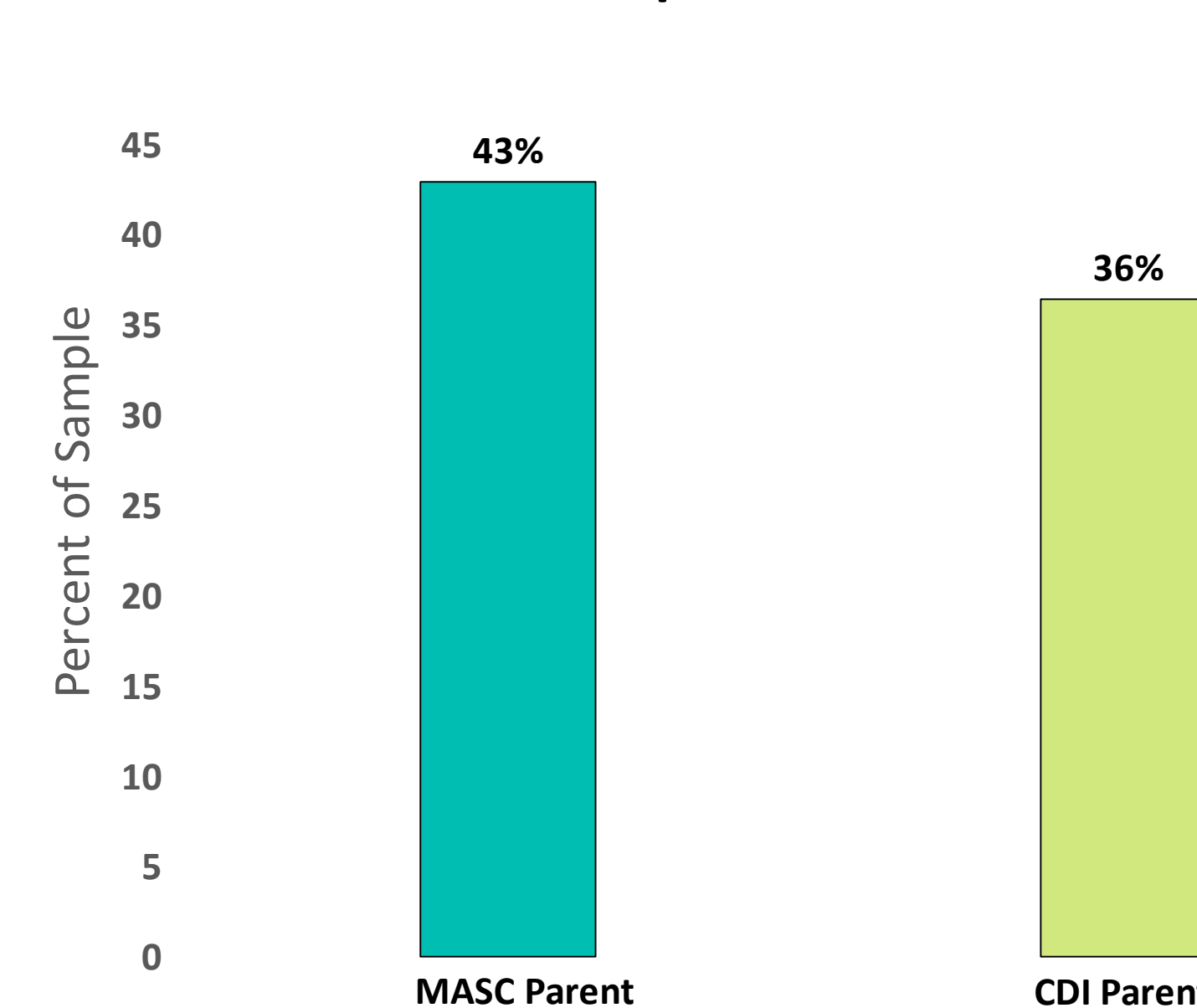
Results

- No significant differences were 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 1 group

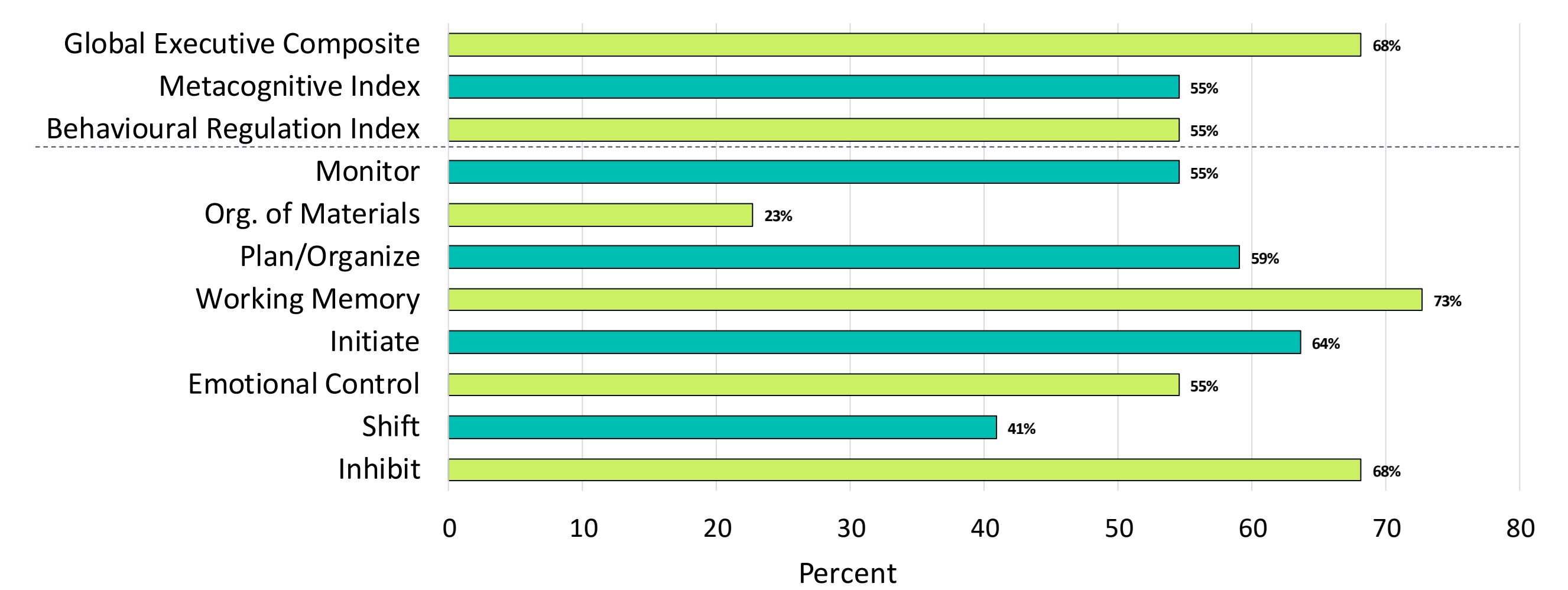
BASC-2 Parent Report: % of sample above clinical cut off



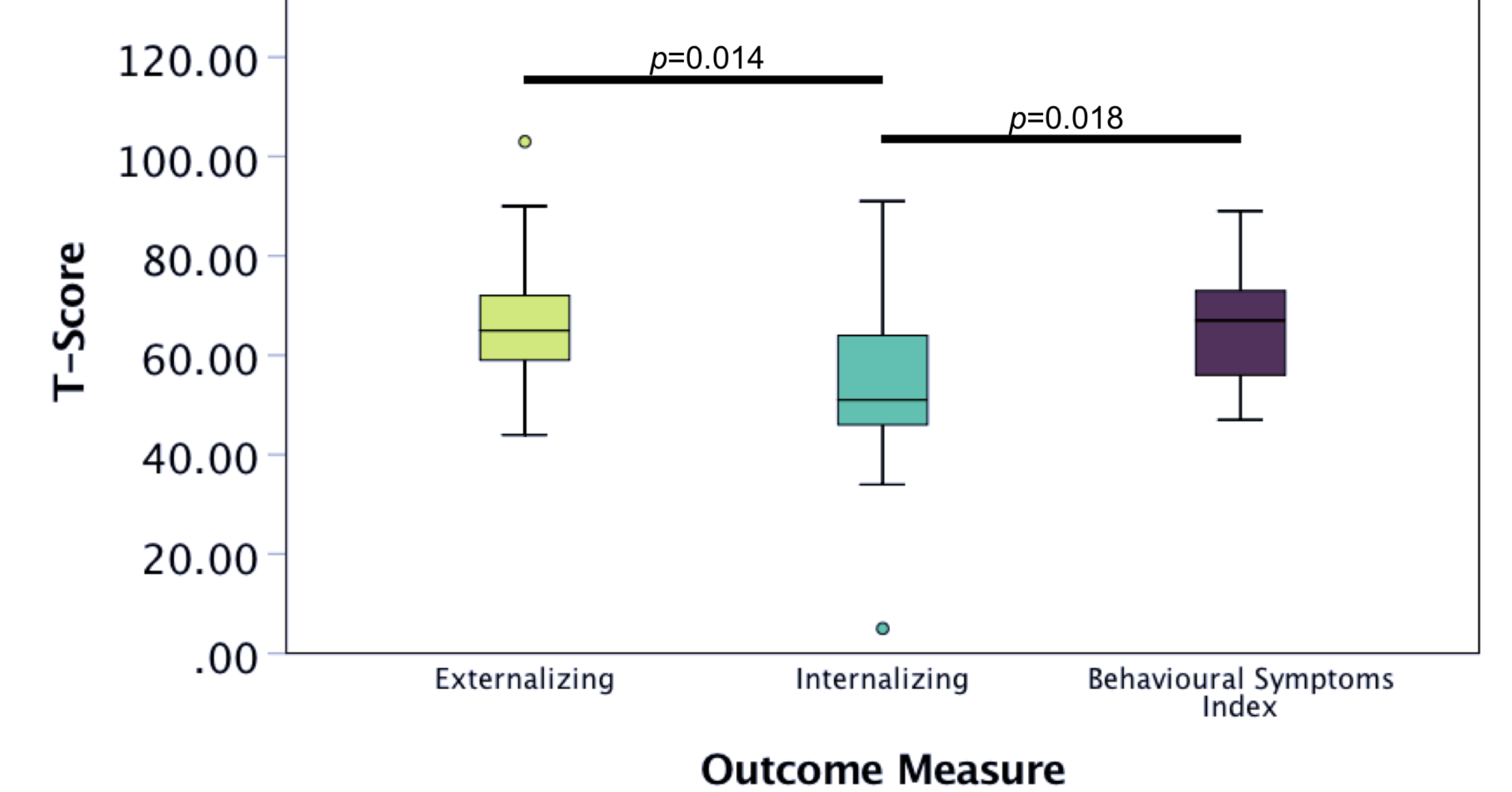
Anxiety and Depression: % of sample above clinical cut off



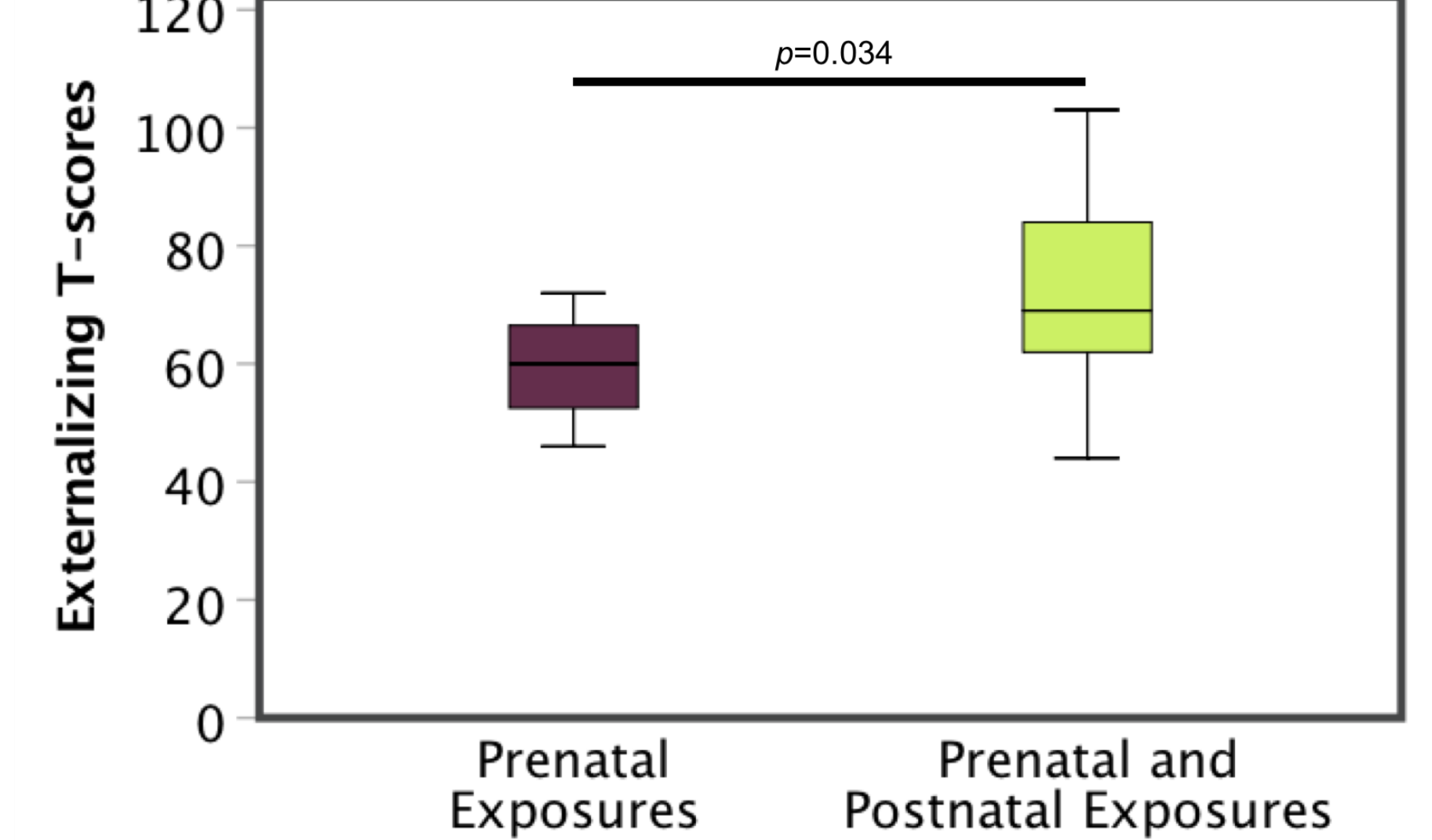
BRIEF Parent Report: % above clinical cut off



Comparing BASC Parent Report Outcome Measures



Externalizing Differences on the BASC-Prs



Children and youth with prenatal and postnatal risks experienced more externalizing issues on the BASC-2 ($M = 71.36$, $SD = 15.722$) than children with only prenatal risks ($M = 59.45$, $SD = 8.513$), $t(1, 24) = -2.58$, $p = .034$

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.

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