

Behavioural and emotional functioning of school-aged children who are HIV-exposed, uninfected: A preliminary study

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Introduction & Methods

Introduction

- Children who are HIV-exposed uninfected (CHEU) may be at increased risk for behavioural and mental health challenges due to multi-factorial adversities such as perinatal HIV and anti-retroviral (ARV) medication exposure, increased preterm birth, potential adverse maternal physical and mental health, socioeconomic disadvantages, among others.¹⁻³
- Youth in families affected by HIV have been identified to have higher rates of psychopathology and behavioural problems than the general population.^{4,5}
- Studies suggest that additional biological and environmental factors other than HIV/ARV exposure may contribute to behavioural and mental health profiles in CHEU youth.^{6,7}
- The objective of the present study was to investigate parent and child-ratings of behavioural and emotional difficulties in CHEU and children who are HIV-unexposed uninfected (CHUU) during childhood.

Methods

- 32 CHEU and 30 CHUU at 6-10 years of age were recruited from the Family Centered HIV Clinic at the Hospital for Sick Children and the community in Toronto, Ontario.
- Inclusion criteria included being born to a mother living with HIV (for CHEU), having a negative HIV status, and no medical conditions affecting neurodevelopment (both groups).
- Parents completed the Strengths and Difficulties Questionnaire (SDQ).⁸
- A subset of 23 CHEU and 22 CHUU completed the self-report Spence Children's Anxiety Scale (SCAS) questionnaire.⁹
- Sociodemographic data were extracted through parent interviews (*See Table 1*).
- Group differences were evaluated with t-tests. Significance was held at $p \leq 0.05$.

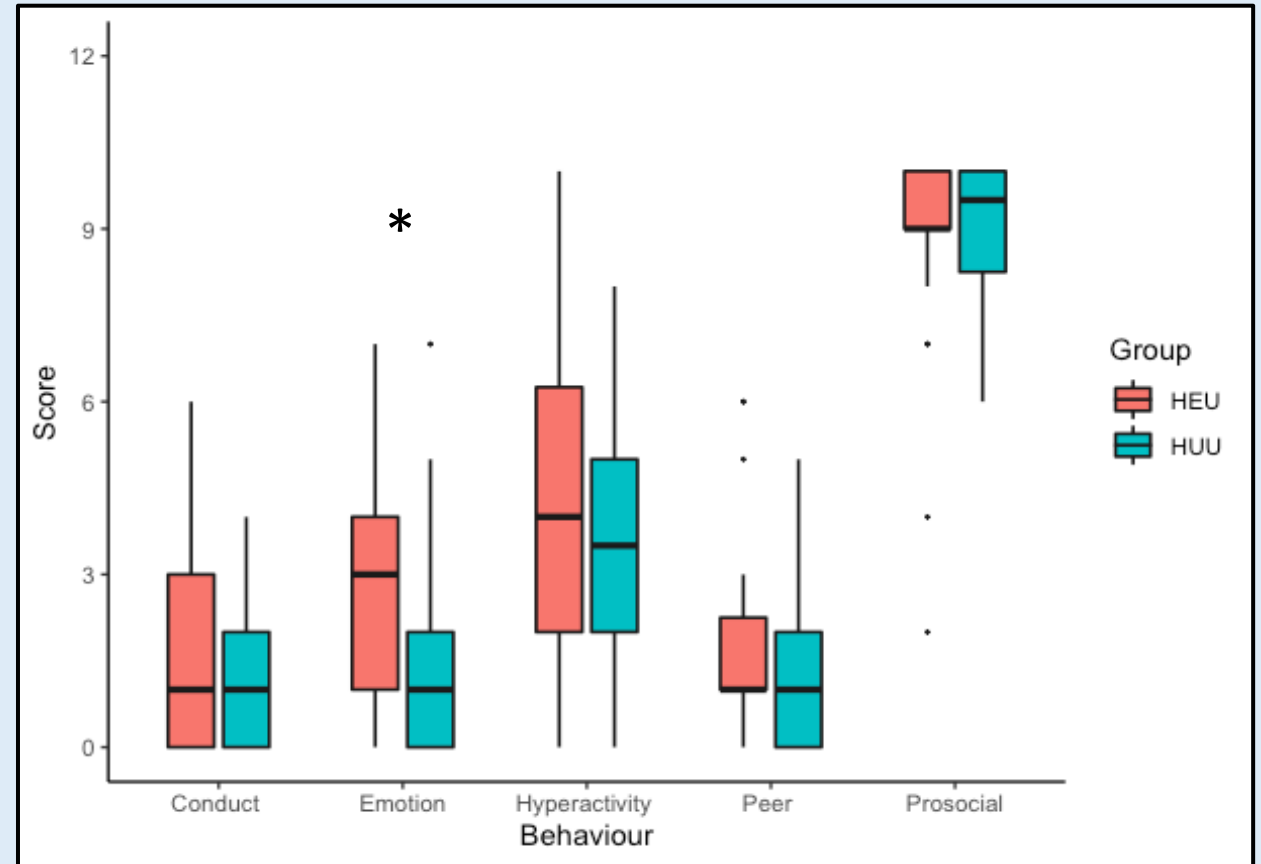
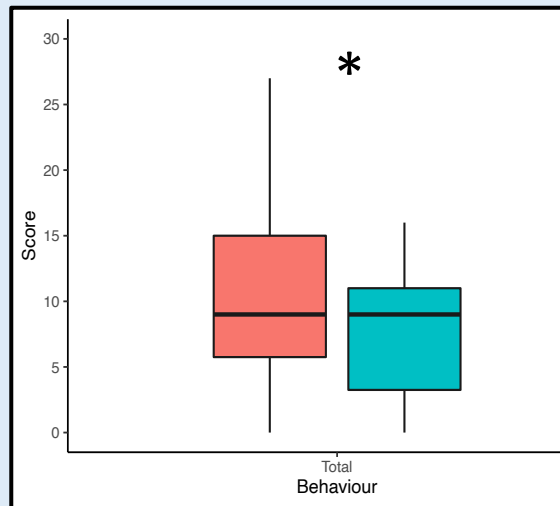
Table 1. Sociodemographic information

	CHEU	CHUU
<i>Child, Maternal, and Social Factors</i>		
Total sample size	32	30
Age (years)	8.53 (1.57)	8.53 (1.55)
Sex (M/F)	15/17	18/12
English spoken at home	31 (96.8%)	28 (93.3%)
Born in Canada	24 (75%)	27 (90%)
<i>Maternal education level</i>		
< High school	3 (10.0%)	3 (9.4%)
High school	4 (13.3%)	8 (25.0%)
College Degree	16 (53.3%)	12 (37.5%)
University Degree	4 (13.3%)	6 (18.75%)
Post-university Degree	3 (10.0%)	3 (9.4%)
<i>Annual household income</i>		
< \$25,000	4 (12.5%)	4 (13.3%)
\$25,000-\$49,000	15 (46.8%)	8 (26.7%)
\$50,000-\$74,999	4 (12.5%)	10 (33.3%)
\$75,000-\$99,999	3 (9.38%)	2 (6.7%)
> \$100,000	6 (18.75%)	6 (20.0%)
<i>Maternal race/ethnicity</i>		
Caucasian	6 (18.75%)	10 (33.3%)
African Caribbean Black	21 (65.6%)	12 (40.0%)
Other	5 (15.63%)	8 (26.7%)

Results

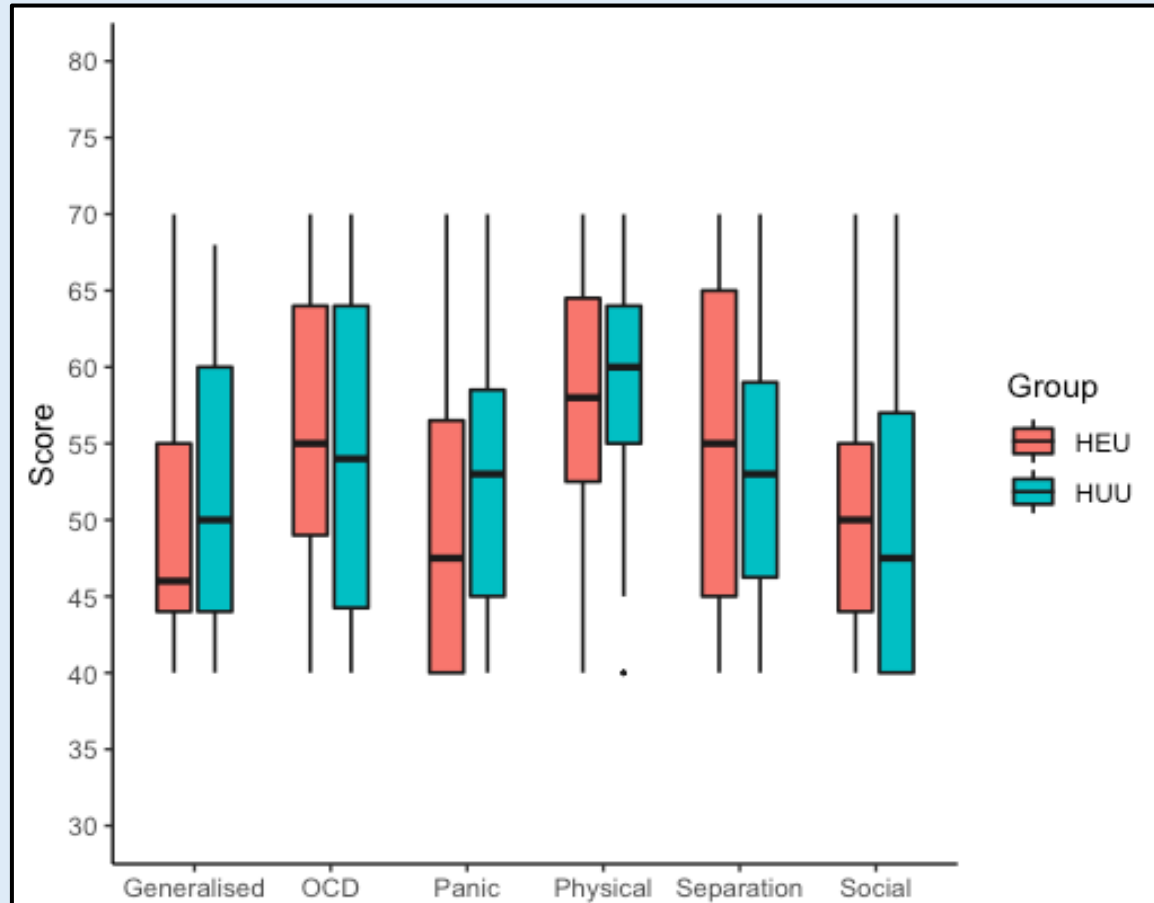
Strengths and Difficulties Parent Questionnaire (SDQ) – Administered to Parents

- The parent-rated SDQ yielded 6 scores of child behaviour: conduct problems, emotional problems, hyperactivity, peer problems, prosocial behaviour, and total problem behaviours. Higher scores for all variables, except the prosocial scale, indicates more problems.
- CHEU scored higher on total behavioural problems ($p=0.04$) and emotional problems ($p=0.03$) compared to CHUU.

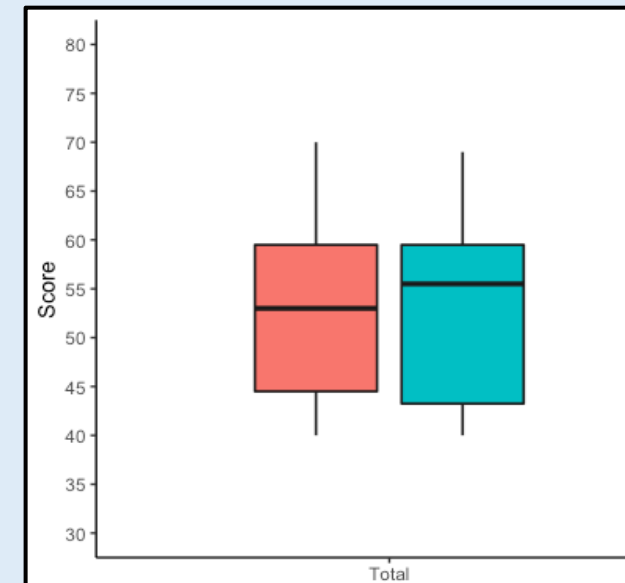


Results

Spence Children's Anxiety Scale (SCAS) – Administered to Children

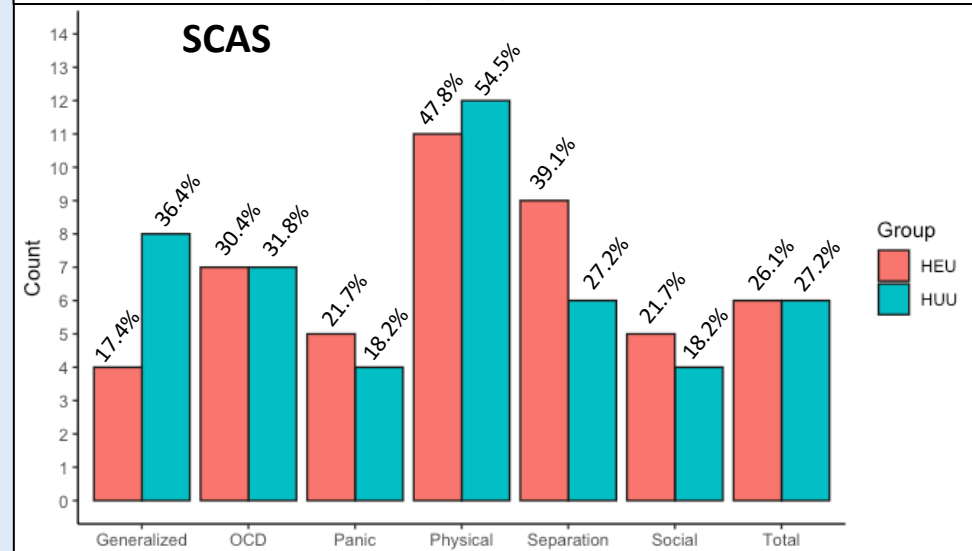
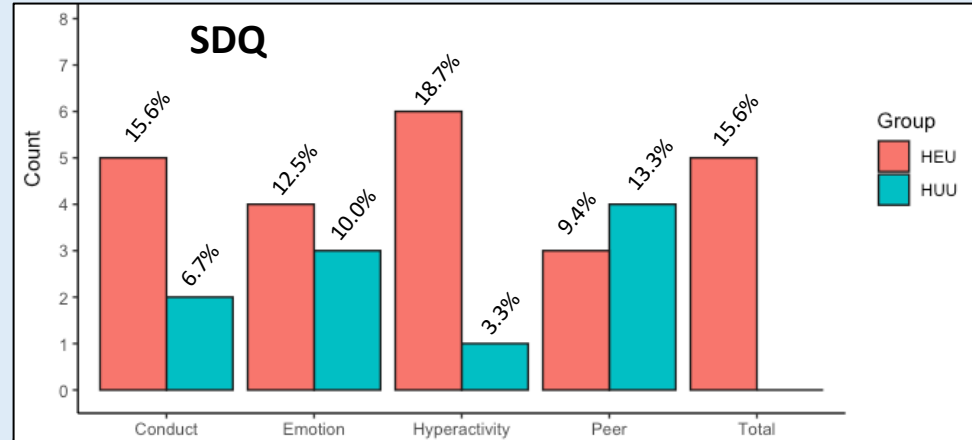


- The child-rated SCAS yielded 7 standardized scores (T-scores) of anxiety symptoms: generalized anxiety, obsessive compulsive disorder (OCD), panic/agoraphobia, physical injury fears, separation anxiety, social phobia, and total symptoms. T-scores ≥ 60 indicate clinical concern.
- CHEU scored similarly to CHUU and no group differences were identified.



Results

Number of Children with Clinical Concern by Measure



Discussion

Discussion

- CHEU and CHUU scored similarly on measures of behavioural problems and anxiety symptoms overall on both parent and self-report questionnaires.
- CHEU scored higher on emotional problems and total behavioural problems than CHUU on the SDQ (parent reported), suggesting a potential vulnerability to mental health challenges.
- Data from the present study were largely collected after the onset of the COVID pandemic, which may have contributed to anxiety symptoms.
- On an individual level, there is evidence of increased clinically concerning behavioural problems in CHEU.
- Both groups had similar incidence of concern on anxiety measures, highlighting a need for resources and intervention to address behavioural and emotional problems for these at-risk children.

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