

141

Prevalence and Correlates of a Positive Autism Spectrum Disorder Screen Among HIV Exposed Uninfected Children

Njuguna¹, King'e M³, Kumar M⁴, Benki-Nugent S², Deshmukh V⁵, Arora N⁵, Onyango A¹, Agiza M¹, John-Stewart G², Wamalwa D³

¹Kenyatta National Hospital, Nairobi, Kenya, ²University of Washington, SEATTLE, United States, ³University of Nairobi, Nairobi, Kenya, ⁴New York University, New York, United States, ⁵The INCLEN Trust International, New Delhi, India

Background: Studies suggest that HIV exposed uninfected (HEU) children may have a higher prevalence of mental health and neurodevelopmental disorders compared to HIV unexposed children (HUU). Few studies have examined if there are differences in prevalence of autism spectrum disorder by HIV exposure status.

Methods: In a cross-sectional survey in Kenya, we adapted the INCLEN tools originally developed and validated in India for ASD screening and diagnosis. The tools are based on the Diagnostic and Statistical Manual of Mental Disorders (DSM) V criteria. We compared prevalence of ASD symptomatology among HEU/HUU and present correlates of a positive ASD screen among HEU. Analysis was adjusted for maternal age, breastfeeding duration, and orphaned and vulnerable child (OVC) status.

Results: A total of 1396 HEU and 168 HUU were enrolled. There were no differences in median age (5.6 vs 5.4 years), child sex or type of primary caregiver. HEU children were more likely to be OVC (23% vs 9%) and to have a shorter breastfeeding duration (12 vs 24 months). HEU mothers were older, had fewer years of education and were more food insecure. A majority of HEU mothers (75%) had initiated ART before pregnancy with the enrolled child.

The prevalence of positive ASD screen using the DSM IV criteria was 2% among HEU and 1% among HUU (adjusted prevalence ratio [aPR] 1.5, 95% CI 0.4, 5.4, p=0.561). Overall, 8% of HEU and 3% of HUU met some but not all criteria (social interaction/communication/restricted interests)

for a positive screen (aPR 3.3, 95% CI 1.3, 8.3, p=0.013).

Among HEU, birthweight of less than 2500 grams (aPR 5.9, 95% CI 1.3, 27.3) and being in a single parent family (aPR 3.7, 95% CI 1.2, 11.4) were associated with a positive screen while being ever breastfed was protective (aPR 0.07 95% CI (0.01, 0.54) (all p-value <0.05)

Conclusion: Prevalence of positive ASD screen was similar in HEU and HUU, while HEU had higher prevalence of meeting some ASD criteria. Cofactors of a positive ASD screen (low birthweight, single parent, and non-breastfeeding) among HEU may be useful to identify children at higher risk for ASD.

