Proposed title: Associations between maternal early adversity, perinatal cannabis use, and maternal mental health

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Purpose of Study: Individuals impacted by early adversity are more likely to use substances earlier, often, to develop use disorders, and to have mental health diagnoses. We examined perinatal people with cannabis use and their infants to determine whether early adversity, rates of use, and mental health diagnoses were associated with one another.

Methods: Mother-infant dyads were recruited from both Ob/Gyn practices as well as from social media in Denver, CO, at 3-15 months postpartum (N=100, 56 with (CU+) and 44 without (CU-) cannabis use). Mothers participated in a multi-visit study and data on early adversity, psychiatric diagnostic data (MINI International Neuropsychiatric Interview, CAPS), and substance use data (timeline follow back) were collected. Descriptive and between-group analyses were conducted in SPSS.

Results: Early adverse experiences were elevated in mothers with cannabis use on multiple measures (Adverse Childhood Experiences Scale, Childhood Trauma Questionnaire, all ps<0.005). Over 40% of mothers with cannabis use used higher-potency forms (dabs/conc use=46%, THC-mean=74%). Rates of lifetime PTSD were uniquely, among comorbid mental health diagnoses, higher in CU+ vs. CU- (X^2(1,80)=7.8, p<0.01, 49% CU+ vs. 19% CU-).

Conclusions: These preliminary data suggest that mothers with cannabis use had higher rates of early adversity and PTSD vs. mothers without use. Significant rates of high-potency cannabis use amongst perinatal individuals suggests that consideration of harm reduction interventions to reduce levels of THC exposure may be helpful. Furthermore, heterogeneity within both CU+ and CU- groups with respect to use of other substances (e.g. – alcohol, nicotine) suggests that interventions for other substance use may improve maternal-infant health. Future work will focus on multimodal neuroimaging, parent-child observational, and serum and breastmilk data collected in this cohort.