24 - Title: Leaving so soon? Understanding Attrition in a Pediatric Concussion Clinic

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Background: Traumatic brain injury (TBI) is a leading cause of pediatric morbidity and mortality. Concussion programs have successfully treated patients, yet attrition from such programs impacts care. We aimed to study patient attrition and contributing clinical factors.

Methods/Research Design: Retrospective analysis of pediatric (age <18y) patients treated at a concussion clinic and Level I Trauma Center from July 2018–March 2024. Demographics, injury characteristics, and clinic data were evaluated. Post-concussion symptom checklist (PCSC) and Concussion Clinic Physical Exam (CCPE) quantified symptoms at initial and final visits. Bivariate analyses and logistic regression models were performed.

Results (or Preliminary Results, as applicable for a project in progress): Fifty patients were analyzed; 82% had mild TBI (GCS ≥13). Patients had 6.4±0.6 visits over 168.2±26.4 days. PCSC and CCPE scores improved across the cohort ($p<0.05$). Attrition patients had shorter duration of care ($p=0.020$) and worse final PCSC ($p=0.005$) and final CCPE ($p=0.019$). Patient sex ($p=0.84$), race ($p=0.39$), and TBI severity ($p=1.00$) were not associated with attrition. Teenagers (14-17y, AOR: 1.44, 95%CI [1.15,2.00]) and patients with abnormal initial CROM (versus normal/untested: AOR 7.89, 95%CI [1.38, 70.24]) had increased odds of attrition.

Conclusion (or Preliminary Conclusion, as applicable for a project in progress):
Concussion clinic attrition is associated with specific clinical deficits. Teenagers and patients with abnormal initial CROM had increased odds of attrition. Clinic retention interventions should be targeted toward teenagers and those with abnormal CROM to improve recovery outcomes and mitigate long term concussion sequelae.