

Brain injury among justice-involved youth: Findings and implications for rehabilitation practitioners

M. Vaccaro¹, D. Nagele¹, MJ Schmidt¹, & J. Myers²

¹ Brain Injury Association of Pennsylvania ² Pennsylvania Department of Health

Background and Objectives

From 2014-2018, a demonstration project was conducted in conjunction with the Pennsylvania Department of Health in two juvenile detention centers in southeastern PA. Its core strategy was:

- To identify detained youth with history of brain injury
- Determine their medical/physical, neurocognitive, and behavioral barriers to successful re-entry
- Implement release plans including connections to brain injury resources and community supports

The goal was to reduce risk and to increase responsivity to treatment by connecting justice-involved youth with history of brain injury to services that address their specific needs while educating and building capacity among juvenile service providers.

Methods

Screening was conducted utilizing the Ohio State University Traumatic Brain Injury Identification Form (OSU TBI-ID) and its CNS supplement (Corrigan & Bogner, 2007).

Neurocognitive assessments were administered to measure memory and executive functioning. The battery included:

- Wechsler Individual Achievement Test (WIAT-III)
- Behavior Rating Inventory of Executive Function-Adult Self-Report Version (BRIEF-A)
- Delis-Kaplan Executive Functioning System (D-KEFS).
- Wide Range Assessment of Memory and Learning (WRAML-2) or the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS)

NeuroResource Facilitation was provided in order to connect available participants to appropriate brain injury resources.

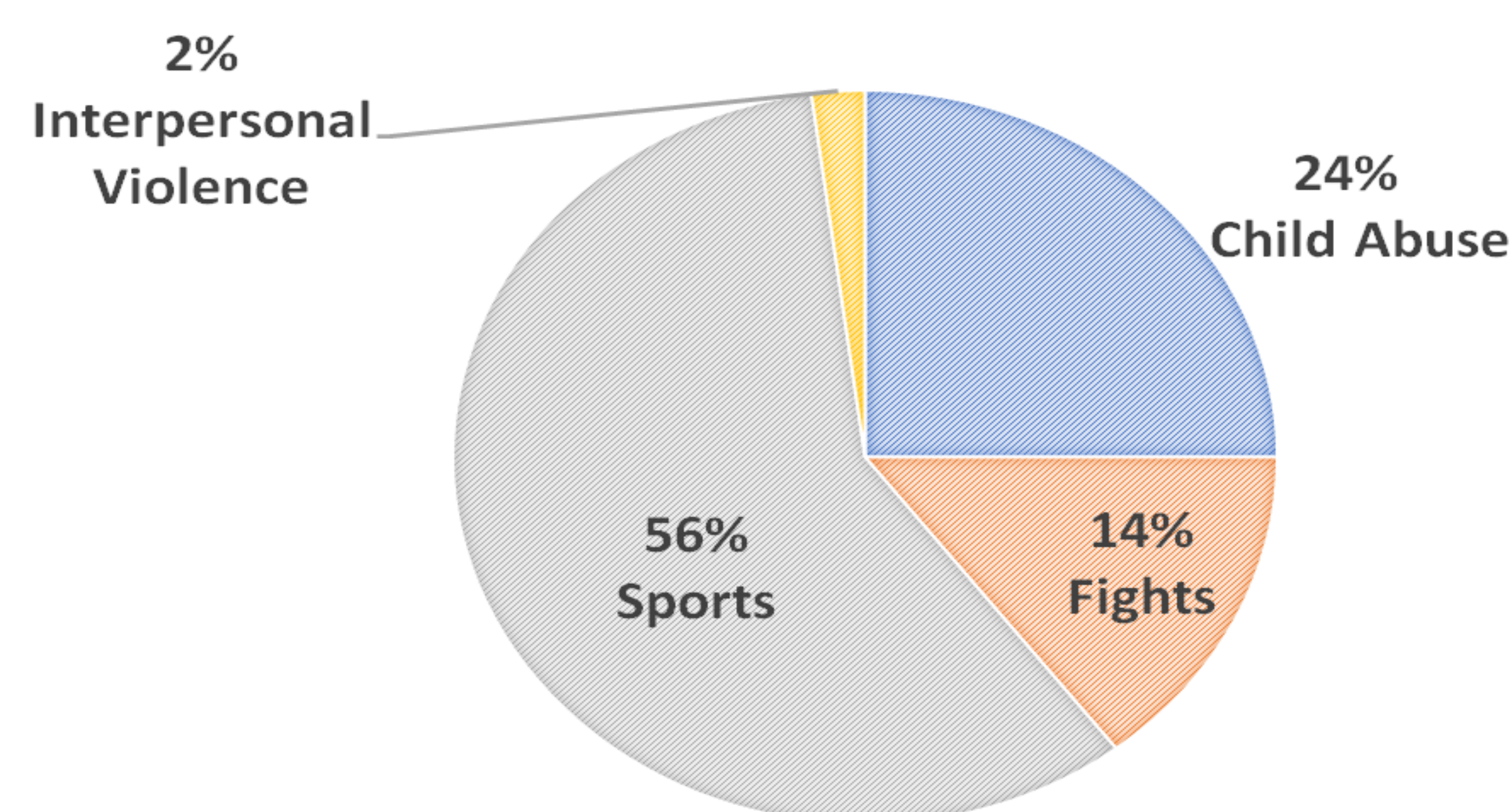
NeuroResource Facilitation included:

- Brain injury education and counseling
- Referrals to neurorehabilitation
- Referrals to brain injury school re-entry programs
- Links to pre-vocational transition services

Screening Data

N=485 79% male, 21% female Age range 12-20 OSU TBI-ID	
Screened positive for event(s) that could have caused a brain injury	49%
Average number of events per youth	3
Average age at time of injury	12
Percentage of events involving no LOC	62%
Percentage of events that were evaluated medically	33%
Percentage of youth reporting a history of repetitive blows to the head	40%

Reported Causes of Repetitive Blows to the Head



Neurocognitive Assessment Data

N=146	
Showed evidence of impairments	57%
Percentage of youth with impairments in working memory	62%
Percentage of youth with impairments in behavioral regulation	48%
Percentage of youth with impairments in delayed recall of novel information	47%

Results

Screening:

Almost half of all youth screened had history of brain injury according to the OSU TBI-ID.

Causes of reported injuries included sports/recreation (25%), vehicle crashes (20%), falls (20%), hit by/against (17%), fights (16%), and blast (2%).

Additionally, 40% of those who screened positive also reported a period of time during which they experienced repetitive blows to the head. 40% of these events were violence-related.

Neurocognitive Assessment:

More than half of youth who received a neurocognitive assessment showed evidence of significant cognitive impairment.

These impairments would be expected to interfere with the ability to function independently in the community and/or to be successful at school or work.

Implications

Brain injury is frequently missed in juvenile justice populations.

Screening and assessment is both necessary and feasible in these settings.

Additional work is needed to determine how to best operationalize such programming and train juvenile service providers.

Brain injury professionals need to advocate, educate, and implement change. Interventions may include NeuroResource Facilitation.

Physicians, educators, and others need to continue to encourage youth and families to recognize the seriousness of head injuries and to pursue specialized care.

Funded by TBI State Implementation Partnership Grant SAP# 4100081563 from the U.S. Department of Health and Human Services, Administration for Community Living (ACL). Contents are the responsibility of the authors and do not necessarily represent the official view of ACL.