Background
Research indicates that traumatic brain injury (TBI) is related to poor impulse control, aggression, poor attention, and higher risk for psychiatric and substance use disorders (Timonen et al., 2002). Those symptoms can impact the behaviors of justice-involved individuals, which may increase recidivism rates and contribute to other problems (Williams et al., 2010). Therefore, it is important to establish base rates of injury history as well as, psychiatric and substance abuse histories among justice-involved persons.

Participants
The TBI Implementation Grant database, DU IRB Protocol #674894-2, was used for this study. The database includes data from adult and juvenile probationers and persons incarcerated in any one of four county jails.

Individuals are screened by jail and probation staff using the Ohio State University Traumatic Brain Injury Identification Method (OSU-TBI ID, Corrigan & Bogner, 2007, 2009). Those indicating a positive history of traumatic brain injury then participated in a neuropsychological screening battery, including effort tests, a clinical interview (Gorgens, 2010), and the Automated Neuropsychological Assessment Metric Core Battery (ANAM; Reeves, Winter, Bleiberg, & Kane, 2007) or the Neuropsychological Assessment Battery Screening Module (NABSM; Stern & White, 2000).

Results
Demographics: This population was 46% White, 22% Hispanic, 18% Black, 4% Native American, and 11% Native Hawaiian/Pacific Islander. This is more diverse and differs from the general Colorado population according to Census data (2014): 88% White, 21% Hispanic, 5% Black, 2% Native American, <1% Native Hawaiian/Pacific Islander.

Difference between General Population and Our Incarcerated Population

<table>
<thead>
<tr>
<th>VICTIM OF CHILDHOOD</th>
<th>HISTORY OF SUBSTANCE ABUSE</th>
<th>PSYCHOTROPIC MEDICATION USAGE</th>
<th>ATTEMPTED SUICIDE</th>
<th>DISSSOCIATIVE DISORDER</th>
<th>PSYCHOTIC DISORDER</th>
<th>ANXIETY DISORDER</th>
<th>MOOD DISORDER</th>
<th>MENTAL HEALTH DIAGNOSIS</th>
<th>TBIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>7%</td>
<td>13%</td>
<td>1%</td>
<td>3%</td>
<td>1%</td>
<td>18%</td>
<td>7%</td>
<td>19%</td>
<td>9%</td>
</tr>
<tr>
<td>61%</td>
<td>95%</td>
<td>59%</td>
<td>36%</td>
<td>2%</td>
<td>15%</td>
<td>34%</td>
<td>50%</td>
<td>73%</td>
<td>56%</td>
</tr>
</tbody>
</table>

0% 20% 40% 60% 80% 100%

Incarcerated population

General population

Conclusion
• Risk:
  • Increased risk for self-harm
  • Increased risk for recidivism due to impulsivity difficulties related to TBIs
  • Increased risk for substance abuse
• Clinical Toolkit
  • Interventions need to be tailored to address the unique needs (TBI, mental health, substance use) of this population

References


