Supporting Survivors of Brain Injury in a Criminal Justice Setting

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Objectives

• Overview of brain injury in the criminal justice system
• Risk-Need-Responsivity and brain injury
• Colorado brain injury protocol
Scope of Problem in Context

- Recent meta-analytic review found the prevalence of TBI in the justice involved population to be **60.28%** (Shiruma, Ferguson, & Pickelsimer, 2010) compared to **8.5%** in the general population (glois, 2008).

- One meta-analysis found that approximately **30%** of individuals in the juvenile justice system have sustained a previous brain injury (Vaughn, Salas-Wright, Delisi, & Perron, 2014).

- In contrast to the general population, women are more likely to have a TBI, and the leading cause of TBI in the justice involved population is **assaults**.

<table>
<thead>
<tr>
<th>Criminal Justice Entity</th>
<th>Total OSU Screened</th>
<th>Positive Screens</th>
<th>Percent Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arapahoe County Probation</td>
<td>51</td>
<td>28</td>
<td>54.9%</td>
</tr>
<tr>
<td>Boulder County Jail (JBBS &amp; JET Units)</td>
<td>369</td>
<td>215</td>
<td>58.2%</td>
</tr>
<tr>
<td>Denver County Jail (RISE unit)</td>
<td>1352</td>
<td>300</td>
<td>22.6%</td>
</tr>
<tr>
<td>Denver County Jail (Transition Unit)</td>
<td>732</td>
<td>449</td>
<td>61.3%</td>
</tr>
<tr>
<td>Larimer County Jail</td>
<td>480</td>
<td>287</td>
<td>59.7%</td>
</tr>
<tr>
<td>Adams County Probation (female offender)</td>
<td>31</td>
<td>30</td>
<td>96.7%</td>
</tr>
<tr>
<td>Adams County Probation (Veterans)</td>
<td>111</td>
<td>47</td>
<td>42.3%</td>
</tr>
<tr>
<td>Adams County Probation (sex offenders)</td>
<td>69</td>
<td>28</td>
<td>40.5%</td>
</tr>
<tr>
<td>Denver Drug Court</td>
<td>686</td>
<td>299</td>
<td>43.5%</td>
</tr>
<tr>
<td>Denver Juvenile Probation</td>
<td>445</td>
<td>82</td>
<td>18.4%</td>
</tr>
<tr>
<td>Jefferson County Recovery Court</td>
<td>81</td>
<td>49</td>
<td>60.4%</td>
</tr>
<tr>
<td>Total</td>
<td>4,407</td>
<td>1,854</td>
<td>42%</td>
</tr>
<tr>
<td>Criminal Justice Entity</td>
<td>Total Neuropsych Screens</td>
<td>Positive Screens</td>
<td>Percent Positive</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>--------------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Arapahoe County Probation</td>
<td>47</td>
<td>37</td>
<td>78.7%</td>
</tr>
<tr>
<td>Boulder County Jail</td>
<td>107</td>
<td>89</td>
<td>83.2%</td>
</tr>
<tr>
<td>Denver County Jail (RISE unit)</td>
<td>191</td>
<td>133</td>
<td>69.6%</td>
</tr>
<tr>
<td>Denver County Jail (Transition Unit)</td>
<td>206</td>
<td>153</td>
<td>73.6%</td>
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<tr>
<td>Larimer County Jail</td>
<td>95</td>
<td>58</td>
<td>61.1%</td>
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<tr>
<td>Adams County Probation (female offender)</td>
<td>13</td>
<td>9</td>
<td>69.2%</td>
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<tr>
<td>Adams County Probation (Veterans)</td>
<td>62</td>
<td>46</td>
<td>74.2%</td>
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<tr>
<td>Adams County Probation (sex offenders)</td>
<td>17</td>
<td>14</td>
<td>82.4%</td>
</tr>
<tr>
<td>Denver Drug Court</td>
<td>104</td>
<td>78</td>
<td>75%</td>
</tr>
<tr>
<td>Denver Juvenile Probation</td>
<td>16</td>
<td>8</td>
<td>50%</td>
</tr>
<tr>
<td>Jefferson County Juvenile Probation</td>
<td>3</td>
<td>2</td>
<td>66.7%</td>
</tr>
<tr>
<td>Jefferson County Recovery Court</td>
<td>28</td>
<td>21</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>881</strong></td>
<td><strong>648</strong></td>
<td><strong>72.7%</strong></td>
</tr>
</tbody>
</table>

**Colorado Data**

- **Childhood Violence**
  - 60% cohort
  - 10% general population

- **Adult Victimization**
  - 63% cohort
  - 4% general population

- **Suicide Attempts**
  - 39% at least one attempt cohort
  - 4% thoughts, 1% plan in general population

- **School Suspension**
  - 54% cohort
  - 24% men; 15% women general population

- **Substance Abuse**
  - 93% history of abuse / misuse cohort
  - 7% general population

- **Mental Health**
  - 75% at least one diagnosis in cohort
  - 20% general population

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What we know about BI and justice-involved populations

- Trauma hx
- 50% higher recidivism rate
- Longer sentences (Horn & Lutz, 2016)
- Lower treatment completion rates
- Higher rates of disciplinary incidents
- Increased risk substance abuse
- Increased risk of mental illness
- 45% of homeless population

Risk-Need-Responsivity and Brain Injury

Image from Taxman, Pattavina, Byrne, and Duroo’s “The Empirical Basis for the RNR Model with an Updated RNR Conceptual Framework” chapter in Simulation Strategies to Reduce Recidivism (2013)

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Big Four

Low Self Control
- Age at first arrest | Number of prior offenses | Rule violations on supervision

Anti-Social Temperament
- Impulsive, adventurous, pleasure-seeking | Generalized trouble in multiple settings
  | Aggressive, callous disregard for others, anger problems | Lack of empathy

Anti-Social Cognitions
- Identifies with other offenders | Negative attitude towards justice system | Belief that crime yields rewards | Rationalizes crime

Anti-Social Companions
- Association with other anti-social peers | Isolation from pro-social peers

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Next Four

Family / Marital
- Poor communication | Significant conflict (parent-child or parent-spouse) | Lack of expectations and rules

Employment / Education
- Low level of performance and involvement | Low levels of reward and satisfaction

Pro-Social Recreation
- Low levels of involvement and satisfaction

Substance Abuse
- Continued use despite life disruptions | Increased tolerance and/or use | Inability to stop using

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Risk and Brain Injury

(Piccolino & Solberg, 2014):

- Increased utilization of services while incarcerated (health and psychological)
- Lower treatment completion rates and higher rates of disciplinary incidents
- Lower ability to maintain rule-abiding behavior during incarceration
- More prior incarcerations
- Higher rates of recidivism (50% higher than those with no reported TBI)
- Higher levels of alcohol and drug use preceding their current incarceration

Need and Brain Injury

- Agitation after traumatic brain injury (TBI) is the most frequently observed behavioral problem (Sandel & Nysse, 1996; Weir, Doug, Fleming, Wiemers, & Zenjic, 2009)
- Injury to the frontal lobes can affect the area of the brain that normally controls our impulses.
  - This inability to control urges can lead to impulsive and often inappropriate social behavior
- Individuals with brain injury report loss of relationships, including friendships, is one of the most devastating effects of brain injury (www.brainline.org)
- Studies have shown up to a 66% unstable employment or unemployment rate following brain injury (Kreutzer, Marwitz, Walker, Sander, Sherer, Bogner, Fraser, & Bushnik, 2003)
- In a study of persons 3 to 5 years after complicated mild to severe TBI, 60% had at least some difficulty performing leisure activities (Wise, E.K. et al. 2010)
What Now?

Brain Injury Protocol

1. Interview Inmate
2. If OBU is positive, have probationer sign consent form*
3. Give probationer Symptoms Questionnaire
4. Refer probationer to AHEAD group (if applicable)
5. Refer probationer to neuropsych screen or evaluation (if applicable)
6. Refer to Brain Injury Alliance of Colorado (if applicable)
7. Share Tip Sheets with probationer (if applicable)
8. Enter Symptom Questionnaire answers online
9. Update district data form monthly

*Sign consent form for OSU-TBI-ID
Symptoms Questionnaire

https://mindsourcecolorado.org/adult-symptom-questionnaire/

Strategies Guidebook

Cognitive Strategies for Criminal Justice Professionals

Memory Problems
Delayed Processing
Attention Problems
Inhibition Problems/Impulsivity
Physical and Sensorimotor Problems
Language Problems
Organization Problems
Mental inflexibility
Emotional Dysregulation
Appendix – Sleep

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Challenges & Lessons Learned

• Massive systems are slow to change
• Red tape
• Information silos
• Us vs. them mentalities
• Resource availability
• State level connections

Thank you for your time!
Questions? Comments? Feedback?

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