Trauma, Sensory Processing, and the Impact of Occupational Therapy

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Outline of Main Points

1. Problem and Questions
2. Research Design
3. Results
   a) Retrospective chart review
   b) Survey
4. Discussion and Implications
5. Conclusions
1. What is the correlation between:
   (a) trauma and sensory processing disorders;
   (b) number of AOV among individuals who received occupational therapy and number of AOV among individuals who did not;
   (c) sensory-based occupational therapy minutes and number of AOV committed within the facility

2. What are the perceptions of the facility’s staff regarding the impact of occupational therapy on youth behavior and skill development?

Retrospective Chart Review:
• Adverse Childhood Experience (ACE)
• Adolescent/Adult Sensory Profile (AASP)

Prospective Staff Survey:
• Perceptions of impact on skills and behaviors
Results: Trauma & Sensory Processing

\[ N = 57 \text{ males, 14 to 20 years of age} \]

Table 1

| Relationship of Trauma and Sensory Processing in Juvenile Offenders (\(N = 57\)) |
|---------------------------------|---|---|
| **Correlation of ACE and**      | **\(r\)** | **\(p\)** |
| Low Registration                | 0.133 | 0.323 |
| Sensory Seeking                 | 0.136 | 0.313 |
| Sensory Sensitivity             | -0.132 | 0.326 |
| Sensory Avoiding                | 0.058 | 0.667 |

*Note. \(\alpha = .05\)*
Results: Acts of Violence

AOV Per Capita of OT vs non OT Youth

α = .05

\[ t(138) = 0.121, \ p = 0.904 \]

Distribution of acts of violence:

\[ X^2 (7) = 0.2677, \ p = 0.999 \]

Relationship of OT Minutes and AOV

R^2 Linear = 0.003

\[ y = 6.29 - 3.08 \times 10^4 x \]

Data did not follow a linear trend
Results: Survey

N= 18 respondents
12 teachers and 6 case managers
Average 67.4 months working at facility
Discussion & Implications

• Consistent with findings of Connell (2015) and Kaiser et al. (2010), but inconsistent with prior correlational evidence
• Limitations: design, sample size, restricted data, assessment tools
• Continued research is needed

72% of youth exhibited abnormal sensory systems
91.2% of youth had an ACE Score >3, as compared to 14% in the general population
Sensory-based occupational therapy is beneficial: clinical significance despite statistical insignificance

Sacks, Murphy, and Moore (2014)
Conclusions

• Difficult research due to ethical concerns
• Valuable intervention
• Further implementation
• Follow-up study