Understanding the prospective associations between neuro-developmental problems, bullying victimization, and mental health: Lessons from a longitudinal study of institutional deprivation

Supplementary file

Table 1. Completely standardized regression coefficients (both significant and nonsignificant)

Table 2. Completely standardized regression coefficients with model controlling for age 6 IQ on young adult outcomes

Figure 1. Path analysis model estimated using the Romanian sample only (n = 165)

Table 1. completely standardized regression coefficients (both significant and nonsignificant)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Outcome** | | | |
|  | **Age 6** | | | |
| **Predictor Variable** | bullied | DSE | ADHD | ASD |
| Deprivation group | 0.22\* | 0.38\* | 0.32\* | 0.27\* |
|  | Age 11 | | | |
| **Predictor Variable** | bullied | DSE | ADHD | ASD |
| Bullied age 6 | 0.08 | -0.08 | 0.04 | -0.07 |
| DSE age 6 | -0.06 | 0.38\* | 0.23\* | -0.07 |
| ADHD age 6 | 0.36\* | 0.16 | 0.41\* | 0.33\* |
| ASD age 6 | 0.02 | 0.04 | 0.13 | 0.43\* |
| Deprivation group | 0.07 | 0.34\* | -0.02 | 0.23\* |
|  | Age 15 | | | |
| **Predictor Variable** | bullied | DSE | ADHD | ASD |
| Bullied age 11 | 0.37\* | 0.13 | 0.12 | 0.00 |
| DSE age 11 | 0.04 | 0.48\* | 0.30\* | 0.01 |
| ADHD age 11 | 0.06 | 0.07 | 0.41\* | 0.03 |
| ASD age 11 | 0.22\* | 0.12\* | 0.05 | 0.71\* |
| Deprivation group | 0.06 | 0.14 | 0.01 | 0.08 |
|  | Age 22-25 | | | |
| **Predictor Variable** | Internalizing z-score | | Functional outcome | |
| Bullied age 15 | 0.39\* | | 0.13 | |
| DSE age 15 | 0.00 | | 0.20 | |
| ADHD age 15 | 0.21 | | 0.17 | |
| ASD age 15 | -0.07 | | 0.23\* | |
| Deprivation group | 0.11 | | 0.02 | |

Note. \* significant at p < .05

DSE *Disinhibited social engagement symptoms*; ASD autism spectrum disorder symptoms (*social communications questionnaire)*; ADHD symptoms.

Table 2. Completely standardized regression coefficients with model controlling for age 6 IQ on young adult outcomes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Outcome** | | | |  |
|  | **Age 6** | | | |  |
| **Predictor Variable** | bullied | DSE | ADHD | ASD | IQ age 6 |
| Deprivation group | 0.22\* | 0.38\* | 0.32\* | 0.27\* | -0.49 |
|  | Age 11 | | | |  |
| **Predictor Variable** | bullied | DSE | ADHD | ASD | - |
| Bullied age 6 | 0.08 | -0.08 | 0.04 | -0.07 | - |
| DSE age 6 | -0.06 | 0.38\* | 0.23\* | -0.07 | - |
| ADHD age 6 | 0.36\* | 0.16 | 0.41\* | 0.33\* | - |
| ASD age 6 | 0.02 | 0.04 | 0.13 | 0.43\* | - |
| Deprivation group | 0.07 | 0.34\* | -0.02 | 0.23\* | - |
|  | Age 15 | | | |  |
| **Predictor Variable** | bullied | DSE | ADHD | ASD | - |
| Bullied age 11 | 0.37\* | 0.13 | 0.12 | 0.00 | - |
| DSE age 11 | 0.04 | 0.48\* | 0.30\* | 0.01 | - |
| ADHD age 11 | 0.06 | 0.07 | 0.41\* | 0.03 | - |
| ASD age 11 | 0.22\* | 0.12\* | 0.05 | 0.71\* | - |
| Deprivation group | 0.06 | 0.14 | 0.01 | 0.08 | - |
|  | Age 22-25 | | | |  |
| **Predictor Variable** | Internalizing z-score | | Functional outcome | | - |
| Bullied age 15 | 0.39\* | | 0.13 | | - |
| DSE age 15 | 0.00 | | 0.20 | | - |
| ADHD age 15 | 0.21 | | 0.17 | | - |
| ASD age 15 | -0.07 | | 0.23\* | | - |
| Deprivation group | 0.03 | | -0.11 | | - |
| IQ age 6 | -0.16 | | -0.26\* | | - |

Note. \* significant at p < .05

DSE *Disinhibited social engagement symptoms*; ASD autism spectrum disorder symptoms  
(*social communications questionnaire)*; ADHD symptoms.

Model fit indices: CFI = 0.91, TLI = 0.79, RMSEA = 0.11, SRMR = 0.11.

IQ at age 6 was measured using McCarthy Scales of Children’s Abilities General Cognitive Index (1972)

Reference

McCarthy, D. (1972). *McCarthy scales of children's abilities (MSCA)*. Psychological Corporation.

Figure 1. Path analysis model estimated using the Romanian sample only (n = 165)

Diagram

Description automatically generated

Note. Only significant paths are shown in the model. Contemporaneous associations, cross-lagged associations among NDCs, and the association between the endogenous variables are not included in the visual to reduce clutter.

DSE *Disinhibited social engagement symptoms*; ASD autism spectrum disorder symptoms  
(*social communications questionnaire)*; ADHD symptoms.