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**Supplemental Table 1.** Statistical comparison between included sample and full sample

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Included sample (n = 4,210)** | **FFCWS sample (n = 4,898)** | **Compa-**  **rison** |
| Ethno-racial identity1 | Black non-Hispanic = 1,485 (35%)  White non-Hispanic = 551 (13%)  Hispanic = 759 (18%)  Other/multi = 236 (6%)  Unknown = 1,179 (28%) | Black non-Hispanic = 1,601 (33%)  White non-Hispanic = 590 (12%) Hispanic = 813 (17%)  Other/multi = 261 (5%)  Unknown = 1,633 (33%) | χ(3) = 0.109,  *p* = .991 |
| Sex at birth | Female = 1,999 (47%)  Male = 2,211 (53%) | Female = 2,568 (52%)  Male = 2,329 (48%)  Unknown = 1 (0.02%) | χ(1) = .003,  *p* = .958 |
| Parental marital status1 | Married = 1,068 (25%)  Unmarried = 3,142 (75%) | Married = 1,187 (24%)  Unmarried = 3,710 (76%)  Unknown = 1 (0.02%) | χ(1) = 1.488,  *P* = .222 |
| Poverty ratio at birth2 | M (SD) = 2.30 (2.47) | M (SD) = 2.22 (2.41) | t(8838.4) = -1.589,  *p* = .112 |
| Child birth city1 | Oakland, CA = 281 (7%)  Austin, TX = 282 (7%)  Baltimore, MD = 294 (7%)  Detroit, MI = 283 (7%)  Newark, NJ = 274 (7%)  Philadelphia, PA = 300 (7%)  Richmond, VA = 267 (6%)  Corpus Christi, TX = 296 (7%)  Indianapolis, IN = 286 (7%)  Milwaukee, WI = 312 (7%)  New York, NY = 312 (7%)  San Jose, CA = 270 (6%)  Boston, MA = 90 (2%)  Nashville, TN = 86 (2%)  Chicago, IL = 136 (3%)  Jacksonville, FL = 88 (2%)  Toledo, OH = 89 (2%)  San Antonio, TX = 88 (2%)  Pittsburgh, PA = 91 (2%)  Norfolk, VA = 85 (2%) | Oakland, CA = 330 (7%)  Austin, TX = 326 (7%)  Baltimore, MD = 338 (9%)  Detroit, MI = 327 (7%)  Newark, NJ = 342 (7%)  Philadelphia, PA = 337 (7%)  Richmond, VA = 327 (7%)  Corpus Christi, TX = 331 (7%)  Indianapolis, IN = 325 (7%)  Milwaukee, WI = 348 (7%)  New York, NY = 384 (8%)  San Jose, CA = 326 (7%)  Boston, MA = 99 (2%)  Nashville, TN = 102 (2 %)  Chicago, IL = 155 (3%)  Jacksonville, FL = 100 (2%)  Toledo, OH = 101 (2%)  San Antonio, TX = 100 (2%)  Pittsburgh, PA = 100 (2%)  Norfolk, VA = 99 (2%)  Unknown = 1 (0.02%) | χ(19) = 3.187,  *p* = 1.00 |

*1 Unknown group was omitted in chi-square estimation*

*2 Poverty ratio represents a ratio of total household income to the official poverty threshold*

**Supplemental Table 2.** Zero-order correlations of adversity scores at each developmental age

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | | | 1 | | | | | | | | 2 | | | | | | | 3 | | | | | | 4 | | | | | |
| 1. Physical aggression (age 3) | | |  | | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 2. Physical aggression (age 5) | | | .47\*\* | | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 3. Physical aggression (age 9) | | | .41\*\* | | | | | | | | .50\*\* | | | | | | |  | | | | | |  | | | | | |
| 4. Internalizing symptoms | | | .02 | | | | | | | | .02 | | | | | | | .05\* | | | | | |  | | | | | |
| 5. Externalizing symptoms | | | .09\*\* | | | | | | | | .10\*\* | | | | | | | .11\*\* | | | | | | .23\*\* | | | | | |
|  | | | | |  | | | |  | | | | |  | | | | | | |  | | | | | | |
| Variable | | | | 1 | | | | | | | | 2 | | | | | | | 3 | | | | | | 4 | | | | | |
| 1. Psychological aggression (age 3) | | | |  | | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 2. Psychological aggression (age 5) | | | | .46\*\* | | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 3. Psychological aggression (age 9) | | | | .34\*\* | | | | | | | | .46\*\* | | | | | | |  | | | | | |  | | | | | |
| 4. Internalizing symptoms | | | | .05\* | | | | | | | | .02 | | | | | | | .06\*\* | | | | | |  | | | | | |
| 5. Externalizing symptoms | | | | .13\*\* | | | | | | | | .14\*\* | | | | | | | .16\*\* | | | | | | .23\*\* | | | | | |
|  | | | |  | | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| Variable | | | | | | 1 | | | | | | | 2 | | | | | | | 3 | | | | | | 4 | | | | | |
| 1. Neglect (age 3) | | | | | |  | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 2. Neglect (age 5) | | | | | | .24\*\* | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 3. Neglect (age 9) | | | | | | .19\*\* | | | | | | | .21\*\* | | | | | | |  | | | | | |  | | | | | |
| 4. Internalizing symptoms | | | | | | .09\*\* | | | | | | | .04\* | | | | | | | .05\* | | | | | |  | | | | | |
| 5. Externalizing symptoms | | | | | | .03 | | | | | | | .08\*\* | | | | | | | .07\*\* | | | | | | .23\*\* | | | | | |
|  | | | | |  | | | | |  | | | | | |  | | | | | |  | | | | | | |
| Variable | 1 | | | | | | 2 | | | | | | | | 3 | | | | | | 4 | | | | | | 5 | | | | | |
| 1. IPV (age 1) |  | | | | | |  | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| 2. IPV (age 3) | .32\*\* | | | | | |  | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| 3. IPV (age 5) | .30\*\* | | | | | | .34\*\* | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| 4. IPV (age 9) | .19\*\* | | | | | | .20\*\* | | | | | | | | .24\*\* | | | | | |  | | | | | |  | | | | | |
| 5. Internalizing symptoms | .03 | | | | | | .06\*\* | | | | | | | | .07\*\* | | | | | | .07\*\* | | | | | |  | | | | | |
| 6. Externalizing symptoms | .05\* | | | | | | .06\*\* | | | | | | | | .10\*\* | | | | | | .05\* | | | | | | .23\*\* | | | | | |
|  |  | | | | | |  | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| Variable | 1 | | | | | | 2 | | | | | | | | 3 | | | | | | 4 | | | | | | 5 | | | | | |
| 1. Maternal depression (age 1) |  | | | | | |  | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| 2. Maternal depression (age 3) | .33\*\* | | | | | |  | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| 3. Maternal depression (age 5) | .29\*\* | | | | | | .35\*\* | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| 4. Maternal depression (age 9) | .21\*\* | | | | | | .29\*\* | | | | | | | | .33\*\* | | | | | |  | | | | | |  | | | | | |
| 5. Internalizing symptoms | .06\*\* | | | | | | .05\*\* | | | | | | | | .05\* | | | | | | .06\*\* | | | | | |  | | | | | |
| 6. Externalizing symptoms | .02 | | | | | | .06\*\* | | | | | | | | .06\*\* | | | | | | .09\*\* | | | | | | .23\*\* | | | | | |
|  |  | | | | | |  | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| Variable | | 1 | | | | | | 2 | | | | | | | | | 3 | | | | | | 4 | | | | | | 5 | | | | |
| 1. Residential move (age 0-1) | |  | | | | | |  | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| 2. Residential move (age 1-3) | | .27\*\* | | | | | |  | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| 3. Residential move (age 3-5) | | .23\*\* | | | | | | .28\*\* | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| 4. Residential move (age 5-9) | | .21\*\* | | | | | | .23\*\* | | | | | | | | | .28\*\* | | | | | |  | | | | | |  | | | | |
| 5. Internalizing symptoms | | .03 | | | | | | .02 | | | | | | | | | .02 | | | | | | .05\*\* | | | | | |  | | | | |
| 6. Externalizing symptoms | | .07\*\* | | | | | | .07\*\* | | | | | | | | | .07\*\* | | | | | | .10\*\* | | | | | | .23\*\* | | | | |
|  |  | | | | | |  | | | | | | | |  | | | | | |  | | | | | |  | | | | | |
| Variable | | 1 | | | | | | 2 | | | | | | | | | 3 | | | | | | 4 | | | | | | 5 | | | | |
| 1. Material hardship (age 1) | |  | | | | | |  | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| 2. Material hardship (age 3) | | .47\*\* | | | | | |  | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| 3. Material hardship (age 5) | | .40\*\* | | | | | | .50\*\* | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| 4. Material hardship (age 9) | | .32\*\* | | | | | | .38\*\* | | | | | | | | | .42\*\* | | | | | |  | | | | | |  | | | | |
| 5. Internalizing symptoms | | .05\* | | | | | | .07\*\* | | | | | | | | | .06\*\* | | | | | | .06\*\* | | | | | |  | | | | |
| 6. Externalizing symptoms | | .09\*\* | | | | | | .08\*\* | | | | | | | | | .11\*\* | | | | | | .13\*\* | | | | | | .23\*\* | | | | |
|  | |  | | | | | |  | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| Variable | | | | | | 1 | | | | | | | 2 | | | | | | | 3 | | | | | | 4 | | | | | |
| 1. Low collective efficacy (age 3) | | | | | |  | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 2. Low collective efficacy (age 5) | | | | | | .36\*\* | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 3. Low collective efficacy (age 9) | | | | | | .29\*\* | | | | | | | .35\*\* | | | | | | |  | | | | | |  | | | | | |
| 4. Internalizing symptoms | | | | | | .06\*\* | | | | | | | .07\*\* | | | | | | | .10\*\* | | | | | |  | | | | | |
| 5. Externalizing symptoms | | | | | | .04\* | | | | | | | .05\* | | | | | | | .07\*\* | | | | | | .23\*\* | | | | | |
|  | | | | | |  | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| Variable | | | | | | 1 | | | | | | | 2 | | | | | | | 3 | | | | | | 4 | | | | | |
| 1. Low collective efficacy (age 3) | | | | | |  | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 2. Low collective efficacy (age 5) | | | | | | .46\*\* | | | | | | |  | | | | | | |  | | | | | |  | | | | | |
| 3. Low collective efficacy (age 9) | | | | | | .33\*\* | | | | | | | .36\*\* | | | | | | |  | | | | | |  | | | | | |
| 4. Internalizing symptoms | | | | | | .04\* | | | | | | | .04 | | | | | | | .05\*\* | | | | | |  | | | | | |
| 5. Externalizing symptoms | | | | | | .08\*\* | | | | | | | .10\*\* | | | | | | | .09\*\* | | | | | | .23\*\* | | | | | |

*Note. \* indicates p < .05. \*\* indicates p < .01.*

**Supplemental Table 3.** Reliability index of adversity measures across childhood

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Adversity measures** | **Internal consistency (α)** | | | |
| **Age 1** | **Age 3** | **Age 5** | **Age 9** |
| Physical aggression | *NA* | .49 | .52 | .62 |
| Psychological aggression | *NA* | .53 | .53 | .63 |
| Neglect | *NA* | .51 | .50 | .58 |
| Intimate partner violence | .63 | .64 | .66 | .69 |
| Maternal depression | *NA* | *NA* | *NA* | *NA* |
| Parental stress | .62 | .64 | .67 | .67 |
| Residential moves | *NA* | *NA* | *NA* | *NA* |
| Material hardship | .61 | .62 | .62 | .61 |
| Low collective efficacy | *NA* | .84 | .87 | .87 |
| Community violence | *NA* | .74 | .76 | .77 |

*Note. No data were collected at age 1 for physical aggression, psychological aggression, neglect, residential moves, low collective efficacy, and community violence. Maternal depression was coded as dichotomous variable at each wave and residential moves were measured as a frequency at each wave so alpha values were not computed for these measures.*

**Supplemental Table 4.** SLCMA models testing cumulative vs. specificity by developmental timing (early ages 1, 3 or later childhood ages 5, 9) in predicting internalizing symptoms

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Adversity model** | **Variable(s) selected** | **Covariates-adjusted models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***Pbonf*** |
| Physical aggression | Cumulative | 0.305 | 0.018 [0.008, 0.027] | .005 |
| Psychological aggression | Cumulative | 0.461 | 0.024 [0.014, 0.035] | <.001 |
| Neglect | Early | 0.202 | 0.161 [0.027, 0.216] | .118 |
| Intimate partner violence | Later | 0.555 | 0.054 [0.033, 0.075] | <.001 |
| Maternal depression | Cumulative | 0.734 | 0.074 [0.048, 0.101] | <.001 |
| Parental stress | Later | 1.070 | 0.021 [0.016, 0.027] | <.001 |
| Residential moves | Later | 0.139 | 0.019 [0.002, 0.034] | .174 |
| Material hardship | Cumulative | 0.482 | 0.019 [0.011, 0.026] | <.001 |
| Low collective efficacy | Later | 0.163 | 0.008 [0.000, 0.011] | <.001 |
| Community violence | Cumulative | 0.231 | 0.016 [0.005, 0.024] | .055 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). The following predictors were included in each adversity model in the first-stage model specification: adversity during early childhood (composite average score across ages 0, 1, 3, whenever available), later childhood (composite average score across ages 5, 9), and cumulative score across all ages.*

**Supplemental Table 5.** SLCMA models testing cumulative vs. specificity by developmental timing (early ages 0, 1, 3 vs later childhood ages 5, 9) in predicting externalizing behaviors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Adversity model** | **Variable(s) selected** | **Covariates-adjusted models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***Pbonf*** |
| Physical aggression | Later | 0.390 | 0.04 [0.022, 0.05] | .002 |
| Psychological aggression | Cumulative | 2.685 | 0.055 [0.046, 0.064] | <.001 |
| Neglect | Later | 0.472 | 0.074 [0.044, 0.098] | <.001 |
| Intimate partner violence | Later | 0.760 | 0.064 [0.045, 0.082] | <.001 |
| Maternal depression | Later | 0.075 | 0.124 [-0.158, 0.156] | 1.00 |
| Parental stress | Cumulative | 0.872 | 0.009 [0.006, 0.012] | <.001 |
| Residential moves | Cumulative | 0.246 | 0.026 [0.008, 0.035] | .045 |
| Material hardship | Later | 0.486 | 0.048 [0.03, 0.058] | <.001 |
| Low collective efficacy | Cumulative | 0.123 | 0.002 [0.000, 0.004] | .319 |
| Community violence | Later | 0.252 | 0.029 [0.009, 0.038] | .041 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). The following predictors were included in each adversity model in the first-stage model specification: adversity at early childhood (composite average score across ages 0, 1, 3, whenever available), later childhood (composite average score across ages 5, 9), and cumulative score across all ages.*

**Supplemental Table 6.** Null models testing cumulative vs. specificity by developmental timing to predict internalizing symptoms

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Adversity model** | **Variable(s) selected** | **Null models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***Pbonf*** |
| Physical aggression | Age 9  Cumulative | 0.062  0.052 | 0.016 [-0.092, 0.261]  0.005 [-0.133, 0.044] | 1.00  1.00 |
| Psychological aggression | Age 9 | 0.264 | 0.046 [0.017, 0.067] | .025 |
| Neglect | Age 3  Cumulative | 0.224  0.699 | 0.114 [0.035, 0.190]  0.035 [0.000, 0.065] | .033  .257 |
| Intimate partner violence | Cumulative  Age 5  Age 9 | 0.481  0.062  0.198 | 0.013 [-0.016, 0.046]  0.040 [-0.065, 0.094]  0.040 [-0.073, 0.090] | 1.00  1.00  1.00 |
| Maternal depression | Cumulative | 0.687 | 0.077 [0.051, 0.103] | <.001 |
| Parental stress | Age 9  Cumulative | 0.139  1.174 | 0.022 [0.005, 0.038]  0.006 [0.000, 0.011] | .008  .192 |
| Residential moves | Age 5-9  Cumulative | 0.066  0.18 | 0.022 [-0.032, 0.076]  0.008 [-0.026, 0.027] | 1.00  1.00 |
| Material hardship | Cumulative | 0.689 | 0.02 [0.013, 0.027] | <.001 |
| Low collective efficacy | Cumulative  Age 9 | 0.718  0.225 | 0.005 [0.002, 0.011]  0.004 [-0.014, 0.011] | .009  1.00 |
| Community violence | Cumulative  Age 9 | 0.207  0.246 | 0.011 [-0.002, 0.025]  0.016 [-0.032, 0.043] | .413  1.00 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). The following predictors were included in each adversity model in the first-stage model specification: adversity at age 1 (for intimate partner violence, maternal depression, parental stress, residential moves, material hardship), age 3, age 5, age 9, and cumulative score across all ages.*

**Supplemental Table 7.** Null models testing cumulative vs. specificity by developmental timing to predict externalizing behaviors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Adversity model** | **Variable(s) selected** | **Null models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***Pbonf*** |
| Physical aggression | Cumulative  Age 9 | 1.772  0.206 | 0.032 [0.018, 0.068]  0.015 [-0.082, 0.043] | <.001  1.00 |
| Psychological aggression | Cumulative  Age 9 | 3.787  0.649 | 0.054 [0.038, 0.074]  0.027 [-0.018, 0.059] | <.001  1.00 |
| Neglect | Cumulative  Age 5 | 0.996  0.212 | 0.062 [0.035, 0.107]  0.048 [-0.120, 0.114] | <.001  1.00 |
| Intimate partner violence | Cumulative  Age 5 | 0.228  1.205 | 0.023 [0.009, 0.037]  0.056 [0.012, 0.095] | .014  .073 |
| Maternal depression | Cumulative  Age 9 | 0.608  0.832 | 0.063 [0.031, 0.095]  0.110 [0.005, 0.196] | .204  .001 |
| Parental stress | Cumulative  Age 9 | 0.873  0.191 | 0.008 [0.004, 0.015]  0.007 [-0.021, 0.020] | .002  1.00 |
| Residential moves | Cumulative  Age 5-9 | 1.452  0.213 | 0.033 [0.020, 0.055]  0.016 [-0.046, 0.043] | <.001  1.00 |
| Material hardship | Cumulative  Age 9 | 1.725  0.947 | 0.025 [0.016, 0.035]  0.033 [-0.001, 0.058] | <.001  .278 |
| Low collective efficacy | Cumulative  Age 9 | 0.143  0.288 | 0.002 [-0.001, 0.006]  0.004 [-0.007, 0.011] | .728  1.00 |
| Community violence | Cumulative  Age 9 | 1.384  0.291 | 0.023 [0.014, 0.036]  0.016 [-0.029, 0.039] | <.001  1.00 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). The following predictors were included in each adversity model in the first-stage model specification: adversity at age 1 (for intimate partner violence, maternal depression, parental stress, residential moves, material hardship), age 3, age 5, age 9, and cumulative score across all ages.*

**Supplemental Table 8.** Nullmodels testing cumulative vs. specificity by adversity type predicting youth internalizing and externalizing problems

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable(s) selected** | **Null models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***p*** |
| Cumulative  Parental stress  Low collective efficacy | 1.166  0.265  0.850 | 0.023 [0.013, 0.032]  0.024 [0.009, 0.038]  0.019 [0.004, 0.031] | <.001  .002  .007 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable(s) selected** | **Null models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***p*** |
| Cumulative  Psychological aggression | 2.416  3.071 | 0.039 [0.031, 0.047]  0.099 [0.067, 0.131] | <.001  <.001 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). In the first-stage model specification for testing cumulative vs. specificity by adversity type, average scores across all timepoints (waves 1, 3, 5, 9) of all adversities (physical aggression, psychological aggression, neglect, intimate partner violence, maternal depression, parental stress, residential moves, material hardship, low collective efficacy, community violence) and their cumulative score were included as predictor.*

**Supplemental Table 9.** SLCMA models testing cumulative vs. specificity by developmental timing to predict internalizing symptoms (multi-informant latent factor using parent and youth reported symptoms)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Adversity model** | **Variable(s) selected** | **Covariates-adjusted models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***Pbonf*** |
| Physical aggression | Age 9 | 0.988 | 0.190 [0.136, 0.244] | <.001 |
| Psychological aggression | Age 9 | 2.970 | 0.349 [0.291, 0.406] | <.001 |
| Neglect | Cumulative | 1.451 | 0.255 [0.193, 0.316] | <.001 |
| Intimate partner violence | Cumulative | 1.741 | 0.138 [0.108, 0.168] | <.001 |
| Maternal depression | Cumulative  Age 9 | 2.836  0.924 | 0.356 [0.046, 0.611]  0.364 [0.000, 0.460] | .137  <.001 |
| Parental stress | Age 9  Cumulative | 1.182  2.567 | 0.110 [0.071, 0.149]  0.026 [0.013, 0.039] | <.001  <.001 |
| Residential moves | Age 5-9  Cumulative | 0.261  0.388 | 0.103 [0.005, 0.212]  0.032 [-0.036, 0.074] | .204  1.00 |
| Material hardship | Cumulative | 2.852 | 0.114 [0.095, 0.13]4 | <.001 |
| Low collective efficacy | Cumulative  Age 9 | 1.252  0.661 | 0.019 [0.011, 0.028]  0.018 [-0.003, 0.036] | <.001  0.451 |
| Community violence | Cumulative  Age 9 | 0.433  0.586 | 0.045 [0.017, 0.075]  0.069 [-0.017, 0.138] | 0.014  0.528 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). The same predictors were included in each adversity model in the first-stage specification: adversity at age 1 (for intimate partner violence, maternal depression, parental stress, residential moves, material hardship), age 3, age 5, age 9, cumulative score across all ages, and all covariates (sex at birth, ethnoracial identity, birth city, parental marital status, shyness, emotionality, pubertal development). Alpha values shown were Bonferroni-corrected for ten comparisons.*

*Internalizing symptoms in these models were measured using a multi-informant latent factor comprising of youth-reported responses on the BSI and CESD, as well as parent-reported responses on the internalizing subscales in the CBCL. Model fit: CFI = .931, TLI = .921, RMSEA = .065, SRMR = .075.*

**Supplemental Table 10.** SLCMA models testing cumulative vs. specificity by developmental timing to predict externalizing symptoms (multi-informant latent factor using parent and youth reported symptoms)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Adversity model** | **Variable(s) selected** | **Covariates-adjusted models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***Pbonf*** |
| Physical aggression | Age 9  Cumulative | 0.295  3.829 | 0.057 [0.031, 0.083]  0.025 [0.013, 0.037] | <.001  <.001 |
| Psychological aggression | Cumulative  Age 9 | 2.522  4.715 | 0.047 [0.033, 0.061]  0.064 [0.037, 0.091] | <.001  <.001 |
| Neglect | Cumulative | 1.213 | 0.069 [0.051, 0.086] | <.001 |
| Intimate partner violence | Age 5  Cumulative | 0.495  1.127 | 0.065 [0.031, 0.101]  0.017 [0.003, 0.029] | .003  .119 |
| Maternal depression | Cumulative  Age 9 | 1.269  0.914 | 0.073 [0.046, 0.100]  0.099 [0.013, 0.174] | <.001  .132 |
| Parental stress | Cumulative  Age 9 | 0.318  2.960 | 0.008 [0.005, 0.012]  0.023 [0.012, 0.035] | <.001  <.001 |
| Residential moves | Cumulative | 1.337 | 0.031 [0.023, 0.040] | <.001 |
| Material hardship | Cumulative  Age 9 | 2.194  1.062 | 0.026 [0.018, 0.034]  0.030 [0.004, 0.052] | <.001  0.131 |
| Low collective efficacy | Cumulative | 1.043 | 0.006 [0.004, 0.007] | <.001 |
| Community violence | Cumulative | 1.451 | 0.027 [0.021, 0.032] | <.001 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). The same predictors were included in each adversity model in the first-stage specification: adversity at age 1 (for intimate partner violence, maternal depression, parental stress, residential moves, material hardship), age 3, age 5, age 9, cumulative score across all ages, and all covariates (sex at birth, ethnoracial identity, birth city, parental marital status, shyness, emotionality, pubertal development). Alpha values shown were Bonferroni-corrected for ten comparisons.*

*Externalizing symptoms here were measured using a multi-informant latent factor comprising of youth-reported responses on the delinquency and substance use questions, as well as parent-reported responses on the externalizing subscales in the CBCL. Model fit: CFI = .955, TLI = .952, RMSEA = .031, SRMR = .092.*

**Supplemental Table 11.** SLCMA models testing cumulative vs. specificity by adversity type to predict youth internalizing and externalizing symptoms (multi-informant latent factor using parent and youth reported symptoms)

|  |  |  |  |
| --- | --- | --- | --- |
| **Outcome: Internalizing**  **Variable(s) selected** | **Covariates-adjusted models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***p*** |
| Cumulative  Parental stress  Maternal depression | 5.44  1.00  0.80 | 0.142 [0.113, 0.174]  0.505 [0.057, 0.132]  0.095 [-0.040, 0.838] | <.001  <.001  .325 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Outcome: Externalizing**  **Variable(s) selected** | **Covariates-adjusted models** | | |
| ***r*2 change (%)** | **Coefficient [CI]** | ***p*** |
| Cumulative  Psychological aggression | 3.38  4.88 | 0.044 [0.036, 0.051]  0.111 [0.084, 0.139] | <.001  <.001 |

*Note. Coefficient and p-values were extracted only for variables that were selected in the first stage of SLCMA (determined by r2**values in corresponding elbow plots). In the first-stage model specification for testing cumulative vs. specificity by adversity type, average scores across all timepoints of all adversity were included as predictors: physical aggression, psychological aggression, neglect, intimate partner violence, maternal depression, parental stress, residential moves, material hardship, low collective efficacy, community violence, cumulative score across all adversity, and all covariates (sex at birth, ethnoracial identity, birth city, parental marital status, shyness, emotionality, pubertal development).*

*Internalizing symptoms in these models were measured using a multi-informant latent factor comprising of youth-reported responses on the BSI and CESD, as well as parent-reported responses on the internalizing subscales in the CBCL. Model fit: CFI = .931, TLI = .921, RMSEA = .065, SRMR = .075.*

*Externalizing symptoms here were measured using a multi-informant latent factor comprising of youth-reported responses on the delinquency and substance use questions, as well as parent-reported responses on the externalizing subscales in the CBCL. Model fit: CFI = .955, TLI = .952, RMSEA = .031, SRMR = .092.*

**Supplemental Table 12.** Zero-order correlations of youth-report measures at age 15

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | *M* | *SD* | 1 | 2 | 3 |
|  |  |  |  |  |  |
| 1. Brief Symptom Inventory (BSI) | 4.86 | 3.91 |  |  |  |
|  |  |  |  |  |  |
| 2. Center for Epidemiologic Studies Depression Scale (CES-D) | 2.55 | 2.60 | .67\*\* |  |  |
|  |  |  |  |  |  |
| 3. Delinquency scale | 1.38 | 2.45 | .15\*\* | .19\*\* |  |
|  |  |  |  |  |  |
| 4. Substance use | 0.47 | 0.88 | .13\*\* | .18\*\* | .45\*\* |
|  |  |  |  |  |  |

*Note. M and SD are used to represent mean and standard deviation, respectively.*

*\* indicates p < .05.*

*\*\* indicates p < .01.*