**Supplementary Material**

|  |
| --- |
| Supplementary Table S1*Phi Correlation Coefficients as Index to Measure the Association Between Dichotomized Risk Factors and Dichotomized Conduct Problems at Wave 1 (N = 1,882)* |
|  | Conduct Problems |
|  | Parents | Teachers |
| Conduct problems (p) | - | .15\*\*\* |
| Conduct problems (t) | .15\*\*\* | - |
| Fearless temperament (t) | .13\*\*\* | .38\*\*\* |
| Grandiose-deceitful (t) | .06\* | .35\*\*\* |
| Callous-unemotional (t) | .12\*\*\* | .53\*\*\* |
| Impulsivity-need for stimulation (t) | .11\*\*\* | .49\*\*\* |
| Attention-deficit/hyperactivity symptoms (t) | .13\*\*\* | .54\*\*\* |
| Low SES (p) | .02 | .10\*\*\* |
| Harsh parenting (p) | .20\*\*\* | .04 |
| Low warm parenting (p) | .11\*\*\* | .03 |
| Male Gender | .09\*\*\* | .14\*\*\* |
| Non-Swedish origin (0 = no; 1 = yes) | -.02 | .02 |
| Non-intact family (0 = no; 1 = yes) | .04 | .12\*\*\* |
| Large family (0 = no; 1 = yes) | .02 | -.01 |
| Parental depressive symptoms (0 = no; 1 = yes) | .09\*\*\* | <.01 |

*Note*. p = parent-rated; t = teacher-rated

\* *p* < .01; \*\* *p* < .01; \*\*\* *p* < .001

|  |
| --- |
| Supplementary Table S2*Differences Across Continuous Teacher-rated Conduct Problems Trajectories in Wave 2-5 Teacher-rated Conduct Problems* |
|  | Low CP | Childhood-Limited CP | Adolescence-onset CP | Childhood-Persistent CP |  |
|  | M(SD) | M(SD) | M(SD) | M(SD) | *F; p* |
|  Wave 2 (n = 1,877) | 1.40 (0.38) a | 2.72 (0.62) b | 1.83 (0.55) c | 3.25 (0.80) d | 869.54; <.001 |
|  Wave 3 (n = 1,805) | 1.31 (0.37) a | 2.57 (0.77) b | 1.76 (0.54) c | 3.35 (0.79) d | 838.10; < .001 |
|  Wave 4 (n = 1,712) | 1.16 (0.29) a | 1.77 (0.72) b | 1.96 (0.76) b | 2.87 (1.06) c | 469.86; < .001 |
|  Wave 5 (n = 1,617) | 1.10 (0.20) a | 1.27 (0.28) b | 2.40 (0.43) c | 2.78 (0.70) d | 1506.12; < .001 |
| *Note*. Degrees of freedom = 3; The number of participants for wave 2 with regard to teacher-rated conduct problems was: Low CP = 1,479, Childhood-Limited CP= 196; Adolescence-Onset CP= 120; and Childhood- Persistent CP = 82; for wave 3: Low CP = 1,416, Childhood-Limited CP= 190, Adolescence-Onset CP= 119, and Childhood-Persistent CP= 80; for wave 4: Low CP = 1,345, Childhood-Limited CP= 179, Adolescence- Onset CP= 115, and Childhood-Persistent CP = 73; and for wave 5: Low CP = 1,280, Childhood-Limited CP = 163, Adolescence-Onset CP= 112, and Childhood-Persistent CP = 62; CP = conduct problems |

|  |
| --- |
| Supplementary Table S3*Unadjusted Associations Between Age and Dichotomized Conduct Problems Assessed at Wave 1 (Age 3-5 Years) and Conduct Problems Trajectories Tested with Multinominal Regression Analyses (N = 1,882)* |
|  | Pairwise Comparisons Between Trajectory Groups |
|  | Childhood-Limited(vs Low) | Adolescent-Onset(vs Low) | Childhood-Persistent(vs Low) | Adolescent-Onset(vs CH-LIM) | Childhood-Persistent(vs CH-LIM) | Childhood-Persistent(vs AO) |
| **Singular Child-Level Risk Factors** | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
|  Conduct problems (p) | **2.99** (2.02; 4.41)a | 1.62 (0.92; 2.88) | **4.70** (2.82; 7.83)a | 0.54 (0.29; 1.03) | 1.57 (0.88; 2.83) | **2.90** (1.41; 5.95) a |
|  Conduct problems (t) | **11.30** (7.80; 16.36)b | **3.98** (2.36; 6.73)b | **26.50** (16.12; 43.56)b  | **0.35** (0.20; 0.61)b  | **2.35** (1.39; 3.70)b | **6.65** (3.50; 12.67)b  |
| *Note*. CH-LIM = Childhood-limited; AO = Adolescent-onset; OR = odds ratio; CI = confidence interval; p = parent-rated; t = teacher-rated; significant associations are in bolda Remained significant after controlling for dichotomized wave 1 teacher-rated conduct problems (details available upon request)b Remained significant after controlling for dichotomized wave 1 parent-rated conduct problems (details available upon request) |

|  |
| --- |
| Supplementary Table S4*Unadjusted Associations between Wave 1 Cumulative Risk Indices (Age 3-5 Years) as Predictors of Dichotomized Wave 6 Teacher-rated Outcomes (Age 14-16 Years) Tested with Bivariate Logistic Regression Analyses*  |
|  | DSMConduct Problems | DSM Affective Problems | DSM Anxiety Problems | Limited Prosocial Emotions | Low Prosocial Behavior | Poor Academic Performance |
|  | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| Total cumulative risk  | **1.36** (1.26; 1.46) | **1.19** (1.10; 1.29) | **1.16** (1.08; l 1.24) | **1.27** (1.17; 1.39) | **1.18** (1.08; 1.29) | **1.29** (1.19; 1.39) |
| Cumulative child-level risk  | **1.35** (1.30; 1.47) | **1.17** (1.06; 1.28) | **1.12** (1.03; 1.21) | **1.30** (1.18; 1.43) | **1.17** (1.05; 1.30) | **1.23** (1.12; 1.35) |
| Cumulative environmental-level risk | **1.73** (1.43; 2.08) | **1.51** (1.25; 1.82) | **1.50** (1.27; 1.77) | **1.41** (1.12; 1.77) | **1.41** (1.13; 1.76) | **1.92** (1.59; 2.32) |
| *Note*. DSM = DSM-oriented problem scale from the Teacher Report Form; OR = odds ratio; 95% CI = confidence interval; significant associations are in bold |

|  |
| --- |
| Supplementary Table S5*Unadjusted Associations between Wave 1 Cumulative Risk Indices (Age 3-5 Years) as Predictors of Dichotomized Wave 6 Youth Self-rated Outcomes (Age 14-16 Years) Tested with Bivariate Logistic Regression Analyses*  |
|  | Delinquency | Bullying | Rule-Breaking at School | Being Drunk | DSM Affective Problems | DSM AnxietyProblems | DelinquentFriends |
|  | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| Total cumulative risk  | **1.11** (1.02; 1.21) | **1.24** (1.14; 1.33) | **1.17** (1.08; 1.26) | **1.10** (1.01; 1.19) | 0.91 (0.81; 1.02) | **0.83** (0.74; 0.93) | **1.13** (1.03; 1.21) |
| Cumulative child- level risk  | 1.07 (0.96; 1.19) | **1.24** (1.13; 1.36) | **1.18** (1.07; 1.30) | 1.05 (0.95; 1.17) | **0.84** (0.73; 0.98) | **0.71**(0.60; 0.83) | **1.13** (1.03; 1.24) |
| Cumulative environmental-level risk | **1.39** (1.14; 1.69) | **1.40** (1.15; 1.71) | **1.27** (1.04; 1.55) | **1.40** (1.56; 1.69) | 1.07 (0.84; 1.36) | 1.10 (0.89; 1.36) | 1.14 (0.93; 1.40) |
| *Note*. DSM = DSM-oriented problem scale from the Teacher Report Form; OR = odds ratio; 95% CI = confidence interval; significant associations are in bold |

|  |
| --- |
| Supplementary Table S6*Adjusted Associations Between Dichotomized Child Antecedents Assessed at Wave 1 (Age 3-5 Years) and Conduct Problems Trajectories Tested with Multinominal Regression Analyses (N = 1,882)* |
|  | Childhood-Limited (vs Low) | Adolescent-Onset (vs Low) | Childhood-Persistent (vs Low) | Adolescent-Onset (vs CH-LIM) | Childhood-Persistent (vs CH-LIM) | Childhood-Persistent  (vs AO) |
| **Singular Child-Level Risk Factors** | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
|  Male gender (p) | **3.51** (2.44; 5.05) | **3.41** (2.22; 5.24) | **5.45** (2.85; 10.41) | 0.97 (0.57; 1.66) | 1.55 (0.77; 3.15) | 1.60 (0.75; 3.40) |
|  Non-Swedish ethnicity (p) | **1.61** (1.10; 2.37) | **2.00** (1.31; 3.07) | 1.50 (0.83; 2.72) | 1.24 (0.73; 2.10) | 0.93 (0.49; 1.76) | 0.75 (0.38; 1.49) |
|  Fearless temperament (t) | **2.73** (1.69; 4.40) | **2.53** (1.38; 4.63) | **5.21** (2.90; 9.38) | 0.93 (0.48; 1.80) | **1.91** (1.04; 3.51) | 2.06 (0.98; 4.33) |
|  Grandiose-deceitful (t) | **1.61** (1.04; 2.50) | **1.96** (1.16; 3.32) | **1.99** (1.11; 3.55) | 1.22 (0.66; 2.25) | 1.23 (0.67; 2.28) | 1.01 (0.50; 2.07) |
|  Callous-unemotional (t) | **1.97** (1.25; 3.18) | 1.12 (0.57; 2.19) | **3.05** (1.65; 5.62) | 0.56 (0.27; 1.16) | 1.52 (0.79; 2.94) | **2.72** (1.20; 6.21) |
|  Impulsive-need for stimulation (t) | **2.28** (1.42; 3.66) | **2.47** (1.37; 4.45) | **3.65** (1.99; 6.71) | 1.08 (0.56; 2.10) | 1.60 (0.84; 3.04) | 1.48 (0.69; 3.17) |
|  ADHD symptoms (t) | **3.04** (1.91; 4.86) | **2.41** (1.30; 4.46) | **3.15** (1.70; 5.83) | 0.79 (0.40; 1.56) | 1.04 (0.54; 1.97) | 1.31 (0.60; 2.86) |
| **Cumulative Child-Level Risk** |  |  |  |  |  |  |
|  Total number of risk factors | **1.74** (1.53; 1.98) | **1.74** (1.48; 2.03) | **2.05** (1.71; 2.45) | 1.00 (0.84; 1.19) | 1.18 (0.98; 1.41) | 1.18 (0.96; 1.45) |
| *Note*. In the adjusted analyses one risk factor was included together with dichotomized parent- and teacher-rated conduct problems; CH-LIM = Childhood-limited; AO = Adolescent-onset; OR = odds ratio; CI = confidence interval; p = parent-rated; t = teacher-rated; ADHD = attention-deficit/hyperactivity disorder; significant associations are in bold |

|  |
| --- |
| Supplementary Table S7*Adjusted Associations Between Dichotomized Environmental Antecedents Assessed at Wave 1 (Age 3-5 Years) and Conduct Problems Trajectories Tested with Multinominal Regression Analyses (N = 1,882)* |
|  | Pairwise Comparisons Between Trajectory Groups  |
|  | Childhood-Limited (vs Low) | Adolescent-Onset (vs Low) | Childhood-Persistent (vs Low) | Adolescent-Onset (vs CH-LIM) | Childhood-Persistent (vs CH-LIM) | Childhood-Persistent  (vs AO) |
| **Singular Environmental-Level Risk Factors** | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
|  Low SES (p) | **2.13** (1.36; 3.33) | 1.57 (0.88; 2.81) | **2.94** (1.60; 5.38) | 0.74 (0.38; 1.44) | 1.38 (0.72; 2.62) | 1.87 (0.86; 4.04) |
|  Non-intact family (p) | **1.97** (7.00; 14.85) | 1.58 (0.93; 2.70) | **4.19** (2.44; 7.19) | 0.80 (0.43; 1.50) | **2.13** (1.19; 3.82) | **2.64** (1.32; 5.33) |
|  Large family (p) | 1.51 (0.90; 2.53) | 1.08 (0.55; 2.13) | 1.48 (0.66; 3.33) | 0.72 (0.32; 1.59) | 0.99 (0.41; 2.35) | 1.37 (0.50; 3.75) |
|  Parental depressive symptoms (p) | **2.25** (1.39; 3.63) | 1.73 (0.95; 3.14) | 0.82 (0.31; 2.19) | 0.77 (0.38; 1.54) | **0.36** (0.13; 0.99) | 0.48 (0.17; 1.43) |
|  Harsh parenting(p) | 1.48 (0.93; 2.36) | 1.53 (0.88; 2.69) | 1.56 (0.79; 3.06) | 1.04 (0.53; 2.02) | 1.05 (0.51; 2.16) | 0.82 (0.31; 2.19) |
|  Low warm parenting (p) | 0.92 (0.52; 1.63) | 1.11 (0.58; 2.15) | 0.95 (0.42; 2.17) | 1.21 (0.54; 2.73) | 1.04 (0.42; 2.54) | 0.85 (0.32; 2.31) |
| **Cumulative Environmental-Level Risk** |  |  |  |  |  |  |
|  Total number of risk factors | **1.51** (1.27; 1.80) | **1.33** (1.07; 1.65) | **1.70** (1.33; 2.17) | 0.88 (0.69; 1.14) | 1.13 (0.87; 1.46) | 1.28 (0.95; 1.73) |
| *Note*.In the unadjusted analyses one risk factor was included as a predictor of trajectory membership; In the adjusted analyses one risk factor was included together with parent- and teacher-rated conduct problems; CH-LIM = Childhood-limited; AO = Adolescent-onset; OR = odds ratio; CI = confidence interval; p = parent-rated; t = teacher-rated; significant associations are in bold |

|  |
| --- |
| Supplementary Table S8*Trajectories as Predictors of Dichotomized Teacher-rated Developmental Outcomes (Age 14-16 Years) Tested With Logistic Regression Analyses, Using Different Contrasts, and Adjusted for Wave 1 Total Cumulative Risk* |
|  | DSM Conduct Problems(yes: n = 142)  | DSM Affective Problems(yes: n = 143) | DSM Anxiety Problems(yes: n = 219) | Limited Prosocial Emotions(yes: n = 101) | Low Prosocial Behavior(yes; n = 103) | Poor Academic Performance(yes: n = 129) |
| **Contrast 1:** | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
|  CH-LIM (vs. Low) | **1.91** (1.08; 3.35) | **1.91** (1.08; 3.35) | 1.05 (0.64; 1.73) | **1.18** (0.51; 2.43) | 0.86 (0.40; 1.84) | 0.87 (0.45; 1.66) |
|  AO (vs. Low) | **5.40** (3.23; 9.03) | **5.40** (3.23; 9.03) | 1.39 (0.81; 2.38) | **3.14** (1.68; 5.88) | **2.20** (1.15; 4.21) | 1.77 (0.95; 3.31) |
|  CH-PER (vs. Low) | **7.32** (3.73; 14.37) | **7.32** (3.73; 14.37) | **2.32** (1.20; 4.47) | **6.64** (3.16; 13.96) | **3.67** (1.66; 8.11) | **4.22** (2.08; 8.55) |
| **Contrast 2:** |  |  |  |  |  |  |
|  AO (vs. CH-LIM) | **2.84** (1.49; 5.41) | 1.56 (0.83; 2.94) | 1.33 (0.68; 2.58) | **2.67** (1.15; 6.16) | **2.57** (1.04; 6.32) | 2.05 (0.91; 4.61) |
|  CH-PER (vs. CH-LIM) | **3.84** (1.89; 7.84) | **3.87** (1.93; 7.78) | **2.21** (1.08; 4.51) | **5.63** (2.42; 13.09) | **4.28** (1.68; 10.90) | **4.88** (2.19; 10.91) |
| **Contrast 3:** |  |  |  |  |  |  |
|  CH-PER (vs. AO) | **1.18** (1.08; 1.30) | **2.47** (1.06; 5.76) | 1.66 (0.77; 3.62) | 2.11 (0.92; 4.86) | 1.67 (0.68; 4.11) | **2.38** (1.03; 5.51) |
|  |  |  |  |  |  |  |
|  | (n = 1,528) | (n = 1,528) | (n = 1,526) | (1,510) | (n = 1,483) | (n = 1,491) |
| *Note*. The n for yes in the column headings refers to the number of participants who exhibited high levels of the outcomes; CH-LIM = childhood-limited; AO = adolescent-onset; DSM = DSM-oriented; OR = odds ratio; 95% CI = confidence interval; significant associations are in bold.  |

|  |
| --- |
| Supplementary Table S9*Trajectories as Predictors of Dichotomized Youth Self-rated Developmental Outcomes (Age 14-16 Years) Tested With Logistic Regression Analyses, Using Different Contrasts, and Adjusted for Wave 1 Total Cumulative Risk* |
|  | Delinquency(yes: n = 147) | Bullying(yes; n = 144) | Rule-breakingAt School (yes: n = 147) | Being Drunk(yes: n = 154) | DSM Affective Problems(yes: n = 122) | DSM AnxietyProblems(yes: n = 159) | Delinquent Friends(yes: n = 165) |
| **Contrast 1:** | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
|  CH-LIM (vs. Low) | 0.91 (0.48; 1.70) | **1.62** (0.93; 2.81) | 1.56 (0.89; 2.73) | 1.00 (0.56; 1.81) | 0.75 (0.34; 1.63) | 0.60 (0.28; 1.29) | **1.79** (1.07; 3.00) |
|  AO (vs. Low) | **2.49** (1.41; 4.42) | **3.40** (1.96; 5.89) | **3.24** (1.88; 5.59) | 1.49 (0.79; 2.79) | 1.22 (0.56; 2.62) | 1.19 (0.59; 2.39) | **2.20** (1.24; 3.92) |
|  CH-PER (vs. Low) | **2.98** (1.37; 6.49) | **2.53** (1.15; 5.56) | **2.98** (1.37; 6.48) | 1.93 (0.86; 4.32) | 2.18 (0.83; 5.69) | 1.90 (0.74; 4.86) | **3.36** (1.59; 7.08) |
| **Contrast 2:** |  |  |  |  |  |  |  |
|  AO (vs. CH-LIM) | **2.75** (1.28; 5.94) | **2.10** (1.06; 4.14) | **2.07** (1.04; 4.12) | 1.48 (0.67; 3.24) | 1.63 (0.58; 4.55) | 1.98 (0.74; 5.26) | 1.23 (0.62; 2.45) |
|  CH-PER (vs. CH-LIM) | **3.30** (1.38; 7.88) | 1.56 (0.69; 3.52) | 1.91 (0.84; 4.32) | 1.92 (0.80; 4.95) | 2.92 (0.95; 9.01) | **3.15** (1.02; 9.76) | 1.87 (0.86; 4.09) |
| **Contrast 3:** |  |  |  |  |  |  |  |
|  CH-PER (vs. AO) | 1.20 (0.50; 2.88) | 0.74 (0.31; 1.78) | 1.08 (0.98; 1.19) | 1.30 (0.50; 3.35) | 1.79 (0.57; 5.67) | 1.59 (0.52; 4.82) | 1.52 (0.64; 3.61) |
|  |  |  |  |  |  |  |  |
|  | (n = 1,352) | (n = 1,417) | (n = 1,402) | (n = 1,414) | (n = 1,418) | (n = 1,412) | (n = 1,400) |
| *Note*. The n for yes in the column headings refers to the number of participants who exhibited high levels of the outcomes; CH-LIM = childhood-limited; AO = adolescent-onset; DSM = DSM-oriented problem scale; OR = odds ratio; 95% CI = confidence interval; significant associations are in bold.  |