**Appendix A**

**Table A1**

*Descriptive Statistics and Correlations of Daily Data*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Descriptive statistics | | | | | | |  | Between-family correlations | |  | Boys | Girls |
|  | *n* | *M* | *SD* | Min | Max | Skewness | ICC |  | 1 | 2 |  | *M* | *M* |
| 1.Parental support | 231 | 5.31 | 1.30 | 1.00 | 7.00 | -1.02 | .50 |  | - | - |  | 5.25 | 5.34 |
| 2. Negative affect | 244 | 1.39 | 0.55 | 1.00 | 4.33 | 2.43 | .64 |  | -.25\*\*\* | - |  | 1.32 | 1.43 |
| 3. Neuroticism | 244 | 3.16 | 1.01 | 1.00 | 6.50 | 0.52 | - |  | -.08 | .17\*\* |  | 2.88a | 3.33a |
| 4. Sex | 244 | 1.62 | 0.49 | 1.00 | 2.00 | -0.49 | - |  | - | - |  | - | - |

*Note*. ICC = intraclass correlation. Sex: 1 = boy 2 = girl. \*\* *p* < .01. \*\*\* *p* < .001.

a Significantly different between boys and girls, as indicated by a significant t-test.

**Table A2**

*Descriptive Statistics and Correlations of Bi-Weekly Data*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Descriptive statistics | | | | | | |  | Between-family correlations | |  | Boys | Girls |
|  | *n* | *M* | *SD* | Min | Max | Skewness | ICC |  | 1 | 2 |  | *M* | *M* |
| 1. Parental support | 256 | 4.51 | 0.52 | 2.54 | 5.00 | -1.20 | .80 |  | - | - |  | 4.38a | 4.57a |
| 2. Depressive symptoms | 255 | 17.41 | 5.60 | 10.00 | 37.00 | 0.99 | .76 |  | -.50\*\*\* | - |  | 15.72a | 18.08a |
| 3. Neuroticism | 252 | 2.86 | 0.94 | 1.00 | 5.00 | 0.20 | - |  | -.26\*\*\* | .69\*\*\* |  | 2.42a | 3.03a |
| 4. Sex | 256 | 1.71 | 0.45 | 1.00 | 2.00 | 0.96 | - |  | - | - |  | - | - |

*Note*. ICC = intraclass correlation. Sex: 1 = boy 2 = girl. \*\*\* *p* < .001.

a Significantly different between boys and girls, as indicated by a significant t-test.

**Table A3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Descriptive statistics | | | | | | |  | Between-family correlations | |  | Boys | Girls |
|  | *n* | *M* | *SD* | Min | Max | Skewness | ICC |  | 1 | 2 |  | *M* | *M* |
| 1. Parental support | 244 | 4.36 | 0.60 | 1.30 | 5.00 | -1.48 | .75 |  | - |  |  | 4.37 | 4.35 |
| 2. Depressive symptoms | 245 | 5.97 | 5.45 | 0.00 | 28.00 | 1.62 | .79 |  | -.50\*\*\* | - |  | 4.76a | 6.87a |
| 3. Neuroticism | 245 | 3.18 | 1.02 | 1.00 | 6.50 | 0.44 | - |  | -.09 | .37\*\*\* |  | 2.91a | 3.37a |
| 4. Sex | 235 | 1.63 | 0.49 | 1.00 | 2.00 | -0.52 | - |  | - | - |  |  |  |

*Descriptive Statistics and Correlations of Three-Monthly Data*

*Note*. ICC = intraclass correlation. Sex: 1 = boy 2 = girl. \*\*\* *p* < .001.

a Significantly different between boys and girls, as indicated by a significant t-test.

**Table A4**

*Descriptive Statistics and Correlations of Annual Data*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Descriptive statistics | | | | | | |  | Between-family correlations | |  | Boys | Girls |
|  | *n* | *M* | *SD* | Min | Max | Skewness | ICC |  | 1 | 2 |  | *M* | *M* |
| 1. Parental support | 1664 | 4.33 | 0.53 | 1.50 | 5.00 | -1.00 | .44 |  | - | - |  | 4.30a | 4.37a |
| 2. Depressive symptoms | 1657 | 2.46 | 1.66 | 0.00 | 9.00 | 0.74 | .48 |  | -.12\*\*\* | - |  | 2.22a | 2.72a |
| 3. Neuroticism | 582 | 2.47 | 0.82 | 1.00 | 5.00 | 0.53 | - |  | -.10\* | .59\*\*\* |  | 2.34a | 2.60a |
| 4. Sex | 1664 | 1.49 | 0.50 | 1.00 | 2.00 | 0.03 | - |  | - | - |  | - | - |

*Note*. ICC = intraclass correlation. Sex: 1 = boy 2 = girl. \* *p* < .05. \*\*\* *p* < .001.

a Significantly different between boys and girls, as indicated by a significant t-test.

**Table A5**

*Descriptive Statistics and Correlations of Biennial Data*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Descriptive statistics | | | | | | |  | Between-family  correlations | |  | Boys | Girls |
|  | *n* | *M* | *SD* | Min | Max | Skewness | ICC |  | 1 | 2 |  | *M* | *M* |
| 1. Parental support | 501 | 3.28 | 0.60 | 1.33 | 4.75 | -0.15 | .53 |  | - | - |  | 3.19a | 3.37a |
| 2. Depressive symptoms | 503 | 5.42 | 3.52 | 0.00 | 22.00 | 1.07 | .46 |  | -.08 | - |  | 4.58a | 6.21a |
| 3. Neuroticism | 478 | 2.53 | 0.64 | 1.06 | 4.56 | 0.45 | - |  | -.01 | .62\*\*\* |  | 2.40a | 2.65a |
| 4. Sex | 503 | 1.52 | 0.50 | 1.00 | 2.00 | -0.08 | - |  | - | - |  | - | - |

*Note*. ICC = intraclass correlation. Sex: 1 = boy 2 = girl. \*\*\* *p* < .001.

a Significantly different between boys and girls, as indicated by a significant t-test.

**Appendix B**

**Table B1**

*Model Fit Indices of Multi-Group Models*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model fit indices | | | |
| Dataset | χ2 | *df* | CFI/TLI | RMSEA |
| Daily |  |  |  |  |
| 1. Sex free | a | a | a | a |
| 1. Sex constrained: PS 🡪 DS | a | a | a | a |
| 1. Sex constrained: DS 🡪 PS | a | a | a | a |
| 1. Neuroticism free | 293.25 | 164 | .89/.88 | .08 |
| 1. Neuroticism constrained: PS 🡪 DS | 292.67 | 165 | .89/.88 | .08 |
| 1. Neuroticism constrained: DS 🡪 PS | 293.78 | 165 | .89/.88 | .08 |
| Bi-weekly |  |  |  |  |
| 1. Sex free | 2566.41 | 852 | .82/.82 | .13 |
| 1. Sex constrained: PS 🡪 DS | 2567.75 | 853 | .82/.82 | .13 |
| 1. Sex constrained: DS 🡪 PS | 2566.56 | 853 | .82/.82 | .13 |
| 1. Neuroticism free | 1888.61 | 852 | .87/.87 | .10 |
| 1. Neuroticism constrained: PS 🡪 DS | 1888.61 | 853 | .87/.87 | .10 |
| 1. Neuroticism constrained: DS 🡪 PS | 1888.67 | 853 | .87/.87 | .10 |
| Three-monthly |  |  |  |  |
| 1. Sex free | 24.88 | 12 | .98/.96 | .10 |
| 1. Sex constrained: PS 🡪 DS | 26.58 | 13 | .98/.96 | .09 |
| 1. Sex constrained: DS 🡪 PS | 28.56 | 13 | .98/.96 | .10 |
| 1. Neuroticism free | 27.90 | 12 | .98/.95 | .10 |
| 1. Neuroticism constrained: PS 🡪 DS | 28.89 | 13 | .98/.96 | .10 |
| 1. Neuroticism constrained: DS 🡪 PS | 31.74 | 13 | .98/.95 | .11 |
| Annual |  |  |  |  |
| 1. Sex free | 23.59 | 12 | 1.00/.99 | .03 |
| 1. Sex constrained: PS 🡪 DS | 24.02 | 13 | 1.00/.99 | .03 |
| 1. Sex constrained: DS 🡪 PS | 27.52 | 13 | 1.00/.99 | .04 |
| 1. Neuroticism free | 16.89 | 12 | 1.00/.99 | .04 |
| 1. Neuroticism constrained: PS 🡪 DS | 21.69 | 13 | .99/.98 | .05 |
| 1. Neuroticism constrained: DS 🡪 PS | 17.96 | 13 | 1.00/.99 | .04 |
| Biennial |  |  |  |  |
| 1. Sex free | 28.84 | 12 | .97/.93 | .08 |
| 1. Sex constrained: PS 🡪 DS | 30.34 | 13 | .97/.94 | .07 |
| 1. Sex constrained: DS 🡪 PS | 29.68 | 13 | .97/.94 | .07 |
| 1. Neuroticism free | 21.86 | 12 | .98/.96 | .06 |
| 1. Neuroticism constrained: PS 🡪 DS | 21.93 | 13 | .99/.96 | .05 |
| 1. Neuroticism constrained: DS 🡪 PS | 24.49 | 13 | .98/.95 | .06 |

*Note*. PS 🡪 DS = lagged effect from parental support to adolescent depressive symptoms. DS 🡪 PS = lagged effect from adolescent depressive symptoms to parental support. χ2 *=* chi-square. df = degrees of freedom. CFI = comparative fit index. TLI = the Tucker Lewis index. RMSEA = root-mean-squared error of approximation.

a Chi-square could not be computed due to low covariance coverage.

**Appendix C**

**Table C1**

*Replication Analyses of Three-Monthly Processes with the Bi-Weekly Dataset*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Bi-weekly dataset  (Dataset 2) | | | | Three-monthly dataset (Dataset 3) | |
|  | Bi-weekly interval (original)  (*t* = 15, *N* = 256) | | Three-monthly interval (replication)  (*t* = 3,  *N* = 256) a | | Three-monthly interval (original)  (*t* = 3,  *N* = 245) | |
| Parameter | b (se) | *r*/β | b (se) | *r*/β | b (se) | *r*/β |
| Between-family  correlation | -1.38 (0.20)\*\*\* | -.52 | -1.12 (0.29)\*\*\* | -.76 | -1.32 (0.25)\*\*\* | -.48 |
| T1 within-family  correlation | -0.28 (0.10)\*\* | -.22 | -0.32 (0.25) | -.20 | -0.16 (0.15) | -.26 |
| T>1 within-family  correlations | -0.12 (0.01)\*\*\* | -.13 to  -.25 | -0.26 (0.11)\* | -.21 to  -.24 | -0.62 (0.09)\*\*\* | -.49 to  -.76 |
| Parental support 🡪  depressive symptoms | 0.32 (0.24) | .02 to .03 | -0.04 (1.25) | -.01 | -2.10 (1.09) | -.22 |
| Depressive symptoms 🡪 parental support | -0.01 (0.00)\*\* | -.05 to  -.07 | 0.01 (0.01) | .05 | -0.04 (0.02)\* | -.27 to  -.30 |
| Autoregressive path  parental support | 0.26 (0.02)\*\*\* | .20 to .31 | 0.77 (0.10)\*\*\* | .68 to .78 | 0.10 (0.18) | .08 to .09 |
| Autoregressive path  depressive symptoms | 0.45 (0.02)\*\*\* | .39 to .52 | 0.05 (0.17) | .05 to .06 | 0.03 (0.21) | .03 |

*Note*. Model fit of replication model: χ2 = 3.95, *df* = 6, RMSEA = .00, CFI/TLI = 1.00/1.01.

a T1, T7, and T13

\* p < .05. \*\* p < .01. \*\*\* p < .001.

**Table C2**

*Replication Analyses of Biennial Processes with the Annual Dataset*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Annual dataset  (Dataset 4) | | | | Biennial dataset (Dataset 5) | |
|  | Annual interval (original)  (*t* = 3, *N* = 1,664) | | Biennial interval (replication)  (*t* =3, *N* = 1,074) | | Biennial interval (original)  (*t* = 3, *N* = 503) | |
| Parameter | b (se) | *r*/β | b (se) | *r*/β | b (se) | *r*/β |
| Between-family  correlation | -0.09  (0.03)\*\* | -.17 | -0.01 (0.05) | -.02 | 0.13 (0.18) | .13 |
| T1 within-family  correlation | 0.00  (0.03) | .01 | -0.06 (0.05) | -.08 | -0.47 (0.17)\*\* | -.25 |
| T>1 within-family  correlations | -0.05  (0.02)\* | -.07 | -0.07 (0.03)\* | -.09 to -.10 | -0.20 (0.11) | -.11 to -.12 |
| Parental support 🡪  depressive symptoms | -0.06  (0.12) | -.02 | -0.41 (0.19)\* | -.11 | -0.29 (0.49) | -.04 |
| Depressive symptoms 🡪 parental support | 0.00  (0.01) | -.01 | -0.02 (0.02) | -.05 | -0.01 (0.01) | -.08 |
| Autoregressive path  parental support | 0.35 (0.05)\*\*\* | .29 to .35 | 0.35 (0.07)\*\*\* | .30 to .34 | 0.27 (0.13)\* | .25 to .28 |
| Autoregressive path  depressive symptoms | 0.22 (0.05)\*\*\* | .22 to .23 | 0.29 (0.08)\*\*\* | .29 | 0.36 (0.09)\*\*\* | .34 |

*Note*. Model fit of replication model: χ2 = 17.13, *df* = 6, RMSEA = .04, CFI/TLI = 0.99/0.97.

\* p < .05. \*\* p < .01. \*\*\* p < .001.

**Appendix D**

**Table D1**

*Daily Processes for Adolescents with a Low and High Average on Negative Affect*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Daily dataset | | | |
|  | Low Negative Affect  (*n* = 122) | | High Negative Affect  (*n* = 122) | |
| Parameter | b (se) | *r*/β | b (se) | *r*/β |
| Between-family  correlation | -0.01 (.01) | -.38 | -0.18 (.11) | -.44 |
| T1 within-family  correlation | -0.02 (.03) | -.14 | -0.13 (.14) | -.19 |
| T>1 within-family  correlations | 0.00 (0.01) | -.02 to -.04 | -0.26 (.11) | -.08 to -.15 |
| Parental support 🡪  Negative affect | 0.01 (.01) | .03 to .06 | 0.02 (.02) | .03 to .05 |
| Negative affect 🡪 parental support | 0.81 (.33)\* | .06 to .15 | 0.09 (.13) | .03 to .05 |
| Autoregressive path  parental support | 0.07 (.07) | .04 to .11 | 0.49 (.10) | .18 to .24 |
| Autoregressive path  negative affect | 0.05 (.04) | .04 to .07 | 0.49(.10)\*\*\* | .38 to .55 |

*Note*. Low negative affect adolescents had an average negative affect lower than the median (1.51). High negative affect adolescents had an average negative affect equal or higher than the median (1.51). \* p < .05. \*\* p < .01. \*\*\* p < .001.