**Table S.1.** *Unstandardized (standard errors), standardized, and significance levels for model in Figure 1*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter Estimate | Unstandardized | Standardized | *p* |
| Structural model: lag and cross-lag estimates |  |  |  |
|  MD Age 2 🡪 MD Age 5 | 0.18 (0.04) | 0.17 | .000 |
|  OB Age 2 🡪 MD Age 5 | 2.01 (1.01) | 0.07 | .046 |
|  MD Age 3 🡪 MD Age 5 | 0.24 (0.04) | 0.24 | .000 |
|  MD Age 4 🡪 MD Age 5 | 0.38 (0.04) | 0.36 | .000 |
|  OB Age 2 🡪 OB Age 5 | 0.11 (0.04) | 0.10 | .008 |
|  OB Age 3 🡪 OB Age 5 | 0.23 (0.05) | 0.22 | .000 |
|  OB Age 4 🡪 OB Age 5 | 0.43 (0.05) | 0.42 | .000 |
|  MD Age 4 🡪 OB Age 5 | 0.01 (0.001) | 0.11 | .001 |
|  MD Age 2 🡪 MD Age 4 | 0.25 (0.04) | 0.24 | .000 |
|  MD Age 3 🡪 MD Age 4 | 0.39 (0.04) | 0.40 | .000 |
|  OB Age 3 🡪 MD Age 4 | 2.41 (0.88) | 0.10 | .006 |
|  OB Age 2 🡪 OB Age 4 | 0.17 (0.04) | 0.15 | .000 |
|  OB Age 3 🡪 OB Age 4 | 0.60 (0.04) | 0.60 | .000 |
|  MD Age 2 🡪 MD Age 3 | 0.44 (0.04) | 0.42 | .000 |
|  OB Age 2 🡪 MD Age 3 | 4.06 (1.06) | 0.14 | .000 |
|  OB Age 2 🡪 OB Age 3 | 0.53 (0.04) | 0.45 | .000 |
|  MD Age 2 🡪 OB Age 3 | 0.01 (0.002) | 0.11 | .002 |
| Structural model: covariance and residual estimates |  |  |  |
|  Covariance between MD Age 5 and OB Age 5  | 0.71 (0.13) | 0.25 | .000 |
|  Covariance between MD Age 4 and OB Age 4 | 0.33 (0.12) | 0.12 | .007 |
|  Covariance between MD Age 3 and OB Age 3 | 0.99 (0.16) | 0.26 | .000 |
|  Covariance between MD Age 2 and OB Age 2 | 0.64 (0.16) | 0.16 | .000 |
|  Residual for MD Age 5 | 75.60 (4.63) | 0.58 | .000 |
|  Residual for OB Age 5 | 0.11 (0.01) | 0.53 | .000 |
|  Residual for MD Age 4  | 76.42 (4.58) | 0.64 | .000 |
|  Residual for OB Age 4 | 0.10 (0.01) | 0.52 | .000 |
|  Residual for MD Age 3 | 94.99 (5.49) | 0.77 | .000 |
|  Residual for OB Age 3 | 0.15 (0.01) | 0.75 | .000 |
|  |  |  |  |

*Note:* χ2 (7, *N* = 677) = 4.08, *p* = .771; comparative fit index = 1.00, root mean square error of approximation = 0.00 (0.00, 0.03), standardized root mean square residual = 0.01. Effects of covariates are not shown. MD, Maternal depressive symptoms; OB, oppositional behavior.

**Table S.2.** *Unstandardized (standard errors), standardized, and significance levels for model in Figure 2*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter Estimate | Unstandardized | Standardized | *p* |
| Structural model: lag and cross-lag estimates |  |  |  |
|  MD Age 2 🡪 MD Age 5 | 0.19 (.04) | 0.18 | .000 |
|  OB Age 2 🡪 MD Age 5 | 2.65 (1.18) | 0.09 | .024 |
|  MD Age 3 🡪 MD Age 5 | 0.24 (.04) | 0.23 | .000 |
|  MD Age 4 🡪 MD Age 5 | 0.38 (.04) | 0.36 | .000 |
|  OB Age 2 🡪 OB Age 5 | 0.16 (.07) | 0.14 | .036 |
|  OB Age 3 🡪 OB Age 5 | 0.19 (.07) | 0.18 | .007 |
|  OB Age 4 🡪 OB Age 5 | 0.39 (.07) | 0.36 | .000 |
|  MD Age 4 🡪 OB Age 5 | 0.01 (.002) | 0.12 | .016 |
|  MD Age 2 🡪 MD Age 4 | 0.25 (.04) | 0.25 | .000 |
|  MD Age 3 🡪 MD Age 4 | 0.43 (.04) | 0.44 | .000 |
|  OB Age 2 🡪 OB Age 4 | 0.18 (.06) | 0.18 | .005 |
|  OB Age 3 🡪 OB Age 4 | 0.33 (.06) | 0.34 | .000 |
|  MD Age 2 🡪 MD Age 3 | 0.47 (.04) | 0.45 | .000 |
|  OB Age 2 🡪 MD Age 3 | 3.76 (1.22) | 0.14 | .002 |
|  OB Age 2 🡪 OB Age 3 | 0.41 (.05) | 0.40 | .000 |
|  MD Age 2 🡪 OB Age 3 | 0.01 (.002) | 0.12 | .010 |
| Structural model: covariance and residual estimates |  |  |  |
|  Covariance between MD Age 5 and OB Age 5  | 0.21 (.19) | 0.07 | .264 |
|  Covariance between MD Age 4 and OB Age 4 | 0.06 (.17) | 0.02 | .711 |
|  Covariance between MD Age 3 and OB Age 3 | 0.53 (.19) | 0.15 | .006 |
|  Covariance between MD Age 2 and OB Age 2 | –0.08 (.21) | –0.02 | .691 |
|  Residual for MD Age 5 | 74.97 (4.63) | 0.43 | .000 |
|  Residual for OB Age 5 | 0.13 (.01) | 0.33 | .000 |
|  Residual for MD Age 4  | 77.43 (4.64) | 0.35 | .000 |
|  Residual for OB Age 4 | 0.12 (.01) | 0.24 | .000 |
|  Residual for MD Age 3 | 94.96 (5.56) | 0.23 | .000 |
|  Residual for OB Age 3 | 0.14 (.01) | 0.20 | .000 |
|  |  |  |  |

*Note:* χ2 (8, *N* = 677) = 5.39, *p* = .715; comparative fit index = 1.00, root mean square error of approximation = 0.00 (0.00, 0.03), standardized root mean square residual = 0.01. Effects of covariates are not shown. MD, Maternal depressive symptoms; OB, oppositional behavior.

**Table S.3.** *Unstandardized (standard errors), standardized, and significance levels for model in Figure 3*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter Estimate | Unstandardized | Standardized | *p* |
| Structural model: lag and cross-lag estimates |  |  |  |
|  MD Age 2 🡪 MD Age 5 | 0.19 (0.04) | 0.17 | .000 |
|  MD Age 3 🡪 MD Age 5 | 0.24 (0.04) | 0.23 | .000 |
|  MD Age 4 🡪 MD Age 5 | 0.38 (0.04) | 0.37 | .000 |
| IC Age 4 🡪 MD Age 5 | –1.60 (0.54) | –0.12 | .003 |
|  OB Age 2 🡪 OB Age 5 | 0.10 (0.04) | 0.08 | .023 |
|  OB Age 3 🡪 OB Age 5 | 0.23 (0.05) | 0.23 | .000 |
|  OB Age 4 🡪 OB Age 5 | 0.43 (0.05) | 0.42 | .000 |
|  MD Age 4 🡪 OB Age 5 | 0.01 (0.001) | 0.11 | .001 |
|  MD Age 2 🡪 MD Age 4 | 0.25 (0.04) | 0.24 | .000 |
|  MD Age 3 🡪 MD Age 4 | 0.40 (0.04) | 0.40 | .000 |
|  OB Age 3 🡪 MD Age 4 | 2.41 (0.88) | 0.10 | .006 |
| IC Age 3 🡪 IC Age 4 | 0.57 (0.06) | 0.51 | .000 |
|  OB Age 2 🡪 OB Age 4 | 0.17 (0.04) | 0.14 | .000 |
| OB Age 3 🡪 OB Age 4 | 0.57 (0.04) | 0.58 | .000 |
| IC Age 3 🡪 OB Age 4 | –0.06 (0.02) | –0.10 | .011 |
|  MD Age 2 🡪 MD Age 3 | 0.44 (0.04) | 0.42 | .000 |
|  OB Age 2 🡪 MD Age 3 | 4.11 (1.06) | 0.14 | .000 |
| OB Age 2 🡪 IC Age 3 | –0.32 (0.10) | –0.15 | .001 |
|  OB Age 2 🡪 OB Age 3 | 0.53 (0.04) | 0.45 | .000 |
|  MD Age 2 🡪 OB Age 3 | 0.004 (0.002) | 0.11 | .004 |
| Structural model: covariances and residuals |  |  |  |
|  Covariance between MD Age 5 and OB Age 5  | 0.70 (0.13) | 0.25 | .000 |
|  Covariance between MD Age 4 and OB Age 4 | 0.33 (0.12) | 0.12 | .006 |
| Covariance between IC Age 4 and OB Age 4 | –0.02 (0.01) | –0.07 | .189 |
| Covariance between IC Age 4 and MD Age 4 | –0.02 (0.36) | –0.004 | .945 |
|  Covariance between MD Age 3 and OB Age 3 | 0.99 (0.16) | 0.26 | .000 |
| Covariance between IC Age 3 and OB Age 3 | –0.07 (0.02) | –0.24 | .000 |
| Covariance between IC Age 3 and MD Age 3 | –1.46 (0.37) | –0.20 | .000 |
|  Covariance between MD Age 2 and OB Age 2 | 0.64 (0.16) | 0.16 | .000 |
|  Residual for MD Age 5 | 74.42 (4.63) | 0.57 | .000 |
|  Residual for OB Age 5 | 0.11 (0.01) | 0.53 | .000 |
|  Residual for MD Age 4  | 76.31 (4.58) | 0.64 | .000 |
| Residual for IC Age 4 | 0.54 (0.04) | 0.71 | .000 |
|  Residual for OB Age 4 | 0.10 (0.01) | 0.52 | .000 |
|  Residual for MD Age 3 | 95.01 (5.49) | 0.78 | .000 |
| Residual for IC Age 3 | 0.57 (0.04) | 0.95 | .000 |
|  Residual for OB Age 3 | 0.15 (0.009) | 0.76 | .000 |

*Note:* χ2 (17, *N* = 677) = 13.38, *p* = .711; comparative fit index = 1.0, root mean square error of approximation = 0.00 (0.00, 0.03), standardized root mean square residual = 0.02. Effects of covariates are not shown. MD, Maternal depressive symptoms; OB, oppositional behavior; IC, inhibitory control.

**Table S.4.** *Unstandardized (standard errors), standardized, and significance levels for model in Figure 4*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter Estimate | Unstandardized | Standardized | *p* |
| Structural model: lag and cross-lag estimates |  |  |  |
|  MD Age 2 🡪 MD Age 5 | 0.19 (0.04) | 0.18 | .000 |
|  MD Age 3 🡪 MD Age 5 | 0.24 (0.04) | 0.23 | .000 |
|  MD Age 4 🡪 MD Age 5 | 0.38 (0.04) | 0.36 | .000 |
| IC Age 4 🡪 MD Age 5 | –1.64 (0.56) | –0.13 | .003 |
|  OB Age 2 🡪 OB Age 5 | 0.16 (0.07) | 0.15 | .032 |
|  OB Age 3 🡪 OB Age 5 | 0.18 (0.07) | 0.17 | .008 |
|  OB Age 4 🡪 OB Age 5 | 0.31 (0.07) | 0.28 | .000 |
| IC Age 4 🡪 OB Age 5 | –0.09 (0.03) | –0.19 | .001 |
|  MD Age 4 🡪 OB Age 5 | 0.004 (0.002) | 0.10 | .036 |
|  MD Age 2 🡪 MD Age 4 | 0.26 (0.04) | 0.25 | .000 |
|  MD Age 3 🡪 MD Age 4 | 0.43 (0.04) | 0.44 | .000 |
| IC Age 3 🡪 IC Age 4 | 0.57 (0.06) | 0.51 | .000 |
|  OB Age 2 🡪 OB Age 4 | 0.14 (0.06) | 0.14 | .015 |
|  OB Age 3 🡪 OB Age 4 | 0.26 (0.06) | 0.28 | .000 |
| IC Age 3 🡪 OB Age 4 | –0.09 (0.03) | –0.17 | .002 |
|  MD Age 2 🡪 MD Age 3 | 0.46 (0.04) | 0.44 | .000 |
|  OB Age 2 🡪 MD Age 3 | 3.63 (1.23) | 0.13 | .003 |
| OB Age 2 🡪 IC Age 3 | –0.43 (0.11) | –0.22 | .000 |
|  OB Age 2 🡪 OB Age 3 | 0.41 (0.05) | 0.40 | .000 |
|  MD Age 2 🡪 OB Age 3 | 0.004 (0.002) | 0.09 | .029 |
| Structural model: covariances and residuals |  |  |  |
|  Covariance between MD Age 5 and OB Age 5  | 0.14 (0.18) | 0.05 | .463 |
|  Covariance between MD Age 4 and OB Age 4 | 0.04 (0.17) | 0.01 | .828 |
| Covariance between IC Age 4 and OB Age 4 | –0.10 (0.02) | –0.41 | .000 |
| Covariance between IC Age 4 and MD Age 4 | –0.10 (0.36) | –0.02 | .783 |
|  Covariance between MD Age 3 and OB Age 3 | 0.54 (0.19) | 0.15 | .005 |
| Covariance between IC Age 3 and OB Age 3 | –0.12 (0.02) | –0.42 | .000 |
| Covariance between IC Age 3 and MD Age 3 | –1.35 (0.37) | –0.19 | .000 |
|  Covariance between MD Age 2 and OB Age 2 | –0.05 (0.21) | –0.01 | .803 |
|  Residual for MD Age 5 | 74.23 (4.61) | 0.57 | .000 |
|  Residual for OB Age 5 | 0.12 (0.01) | 0.64 | .000 |
|  Residual for MD Age 4  | 77.40 (4.64) | 0.65 | .000 |
| Residual for IC Age 4 | 0.54 (0.04) | 0.71 | .000 |
|  Residual for OB Age 4 | 0.12 (0.01) | 0.75 | .000 |
|  Residual for MD Age 3 | 95.20 (5.57) | 0.78 | .000 |
|  Residual for IC Age 3 | 0.55 (0.04) | 0.92 | .000 |
| Residual for OB Age 3 | 0.14 (0.01) | 0.80 | .000 |

*Note:* χ2 (17, *N* = 677) = 20.10, *p* = .269; comparative fit index = 1.0, root mean square error of approximation = 0.02 (0.00, 0.04), standardized root mean square residual = 0.02. Effects of covariates are not shown. MD, Maternal depressive symptoms; OB, oppositional behavior; IC, inhibitory control.

**Table S.5.** *Unstandardized, standardized (standard errors), and significance levels for model in Figure 5*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter Estimate | Unstandardized | Standardized | *p* |
| Structural model: lag and cross-lag estimates |  |  |  |
|  MD Age 2 🡪 MD Age 5 | 0.19 (0.04) | 0.18 | .000 |
|  OB Age 2 🡪 MD Age 5 | 2.70 (1.18) | 0.10 | .022 |
|  MD Age 3 🡪 MD Age 5 | 0.24 (0.04) | 0.23 | .000 |
|  MD Age 4 🡪 MD Age 5 | 0.38 (0.04) | 0.37 | .000 |
|  OB Age 2 🡪 OB Age 5 | 0.15 (0.07) | 0.14 | .040 |
|  OB Age 3 🡪 OB Age 5 | 0.18 (0.07) | 0.18 | .009 |
|  OB Age 4 🡪 OB Age 5 | 0.40 (0.07) | 0.37 | .000 |
|  MD Age 4 🡪 OB Age 5 | 0.01 (0.002) | 0.12 | .018 |
|  MD Age 2 🡪 MD Age 4 | 0.26 (0.04) | 0.25 | .000 |
|  MD Age 3 🡪 MD Age 4 | 0.43 (0.04) | 0.43 | .000 |
|  IC Age 3 🡪 IC Age 4 | 0.52 (0.04) | 0.51 | .000 |
|  MD Age 3 🡪 IC Age 4 | –0.01 (0.003) | –0.11 | .002 |
|  OB Age 2 🡪 OB Age 4 | 0.17 (0.06) | 0.17 | .007 |
|  OB Age 3 🡪 OB Age 4 | 0.32 (0.06) | 0.33 | .000 |
| IC Age 3 🡪 OB Age 4 | –0.05 (0.03) | –0.11 | .030 |
|  MD Age 2 🡪 MD Age 3 | 0.47 (0.04) | 0.45 | .000 |
|  OB Age 2 🡪 MD Age 3 | 3.65 (1.23) | 0.13 | .003 |
| MD Age 2 🡪 IC Age 3 | –0.01 (0.003) | –0.15 | .000 |
| OB Age 2 🡪 IC Age 3 | –0.24 (0.10) | –0.13 | .012 |
|  OB Age 2 🡪 OB Age 3 | 0.43 (0.05) | 0.41 | .000 |
|  MD Age 2 🡪 OB Age 3 | 0.01 (0.002) | 0.13 | .007 |
| Structural model: covariances and residuals |  |  |  |
|  Covariance between MD Age 5 and OB Age 5  | 0.22 (0.19) | 0.07 | .253 |
|  Covariance between MD Age 4 and OB Age 4 | 0.02 (0.17) | 0.01 | .926 |
| Covariance between IC Age 4 and OB Age 4 | –0.04 (0.01) | –0.18 | .001 |
| Covariance between IC Age 4 and MD Age 4 | –0.64 (0.25) | –0.11 | .010 |
|  Covariance between MD Age 3 and OB Age 3 | 0.51 (0.19) | 0.14 | .008 |
| Covariance between IC Age 3 and OB Age 3 | –0.04 (0.01) | –0.14 | .005 |
| Covariance between IC Age 3 and MD Age 3 | –1.40 (0.30) | –0.19 | .000 |
|  Covariance between MD Age 2 and OB Age 2 | –0.09 (0.21) | –0.02 | .652 |
|  Residual for MD Age 5 | 75.23 (4.65) | 0.57 | .000 |
|  Residual for OB Age 5 | 0.13 (0.01) | 0.67 | .000 |
|  Residual for MD Age 4  | 77.41 (4.64) | 0.65 | .000 |
| Residual for IC Age 4 | 0.43 (0.03) | 0.67 | .000 |
|  Residual for OB Age 4 | 0.12 (0.01) | 0.76 | .000 |
|  Residual for MD Age 3 | 95.01 (5.55) | 0.77 | .000 |
|  Residual for IC Age 3 | 0.55 (0.03) | 0.91 | .000 |
| Residual for OB Age 3 | 0.14 (0.01) | 0.81 | .000 |

*Note:* χ2 (16, *N* = 677) = 11.38, *p* = .785; comparative fit index = 1.0, root mean square error of approximation = 0.00 (0.00, 0.02), standardized root mean square residual = 0.01. Effects of covariates are not shown. MD, Maternal depressive symptoms; OB, oppositional behavior; IC, inhibitory control.