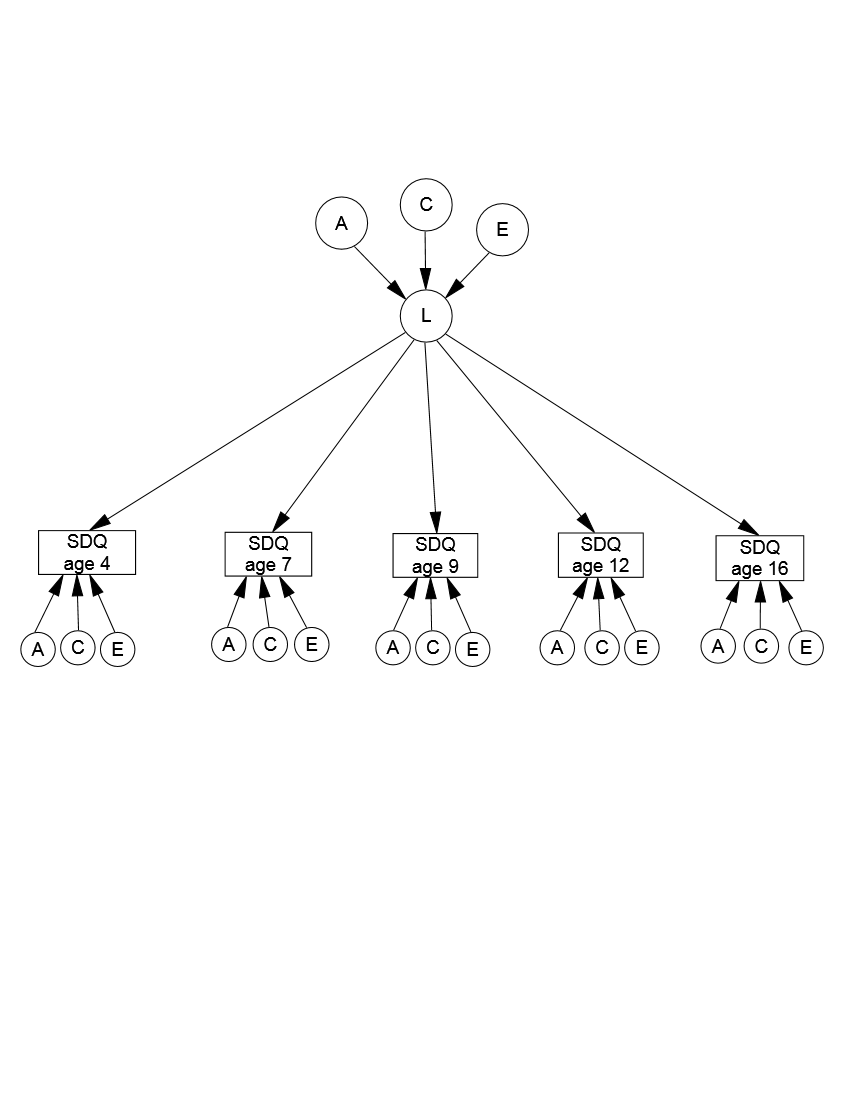
**Supplement**

Table 1. Multivariate model fit statistics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | -2LL (df) | ∆-2LL(∆df) | p | AIC |
| *Anxiety (4-12)* |  |  |  |  |
| Saturated Phenotypic | 120770.9 (46676) | - | - | 27418.9 |
| **Cholesky** | **120893.6 (46730)** | **-** | **-** | **27433.6** |
| Independent pathway | 120937.3 (46736) | 43.7 (6) | < .001 | 27465.3 |
| Common pathway | 121050.4 (46742) | 156.8 (12) | < .001 | 27566.4 |
| Simplex | 121891.4 (46741) | 997.8 (11) | < .001 | 28409.4 |
| *Conduct (4-16)* |  |  |  |  |
| Saturated Phenotypic | 136170.2 (55325) | - | - | 25520.2 |
| **Cholesky** | **136345.5 (55405)** | **-** | **-** | **25535.5** |
| Independent pathway | 136527.9 (55420) | 182.4 (15) | < .001 | 25687.9 |
| Common pathway | 136679.0 (55428) | 333.5 (23) | < .001 | 25823.0 |
| Simplex | 136492.4 (55426) | 146.9 (21) | < .001 | 25640.4 |
| *Hyperactivity (4-16)* |  |  |  |  |
| Saturated Phenotypic | 135723.6 (55291) | - | - | 25141.6 |
| **Cholesky** | **136865.4 (55371)** | **-** | **-** | **26123.4** |
| Independent pathway | 137065.3 (55386) | 199.9 (15) | < .001 | 26293.3 |
| Common pathway | 137558.8 (55394) | 693.4 (23) | < .001 | 26770.7 |
| Simplex | 137124.9 (55392) | 259.5 (21) | < .001 | 26340.9 |
| *Peer Problems (4-12)* |  |  |  |  |
| Saturated Phenotypic | 120396.6 (46656) | - | - | 27084.6 |
| **Cholesky** | **120807.2 (46710)** | **-** | **-** | **27387.2** |
| Independent pathway | 120858.2 (46716) | **51.0 (6)** | < .001 | 27426.2 |
| Common pathway | 120912.3 (46722) | 105.1 (12) | < .001 | 27468.3 |
| Simplex | 120941.5 (46721) | 134.3 (11) | < .001 | 27499.5 |
| *Prosociality (4-16)* |  |  |  |  |
| Saturated Phenotypic | 137978.8 (55350) | - | - | 27278.8 |
| **Cholesky** | **138186.0 (55430)** | **-** | **-** | **27326.0** |
| Independent pathway | 138414.6 (55445) | 228.6 (15) | < .001 | 27524.6 |
| Common pathway | 138604.7 (55453) | 418.7 (23) | < .001 | 27698.7 |
| Simplex | 138300.4 (55451) | 114.4 (21) | < .001 | 27398.4 |

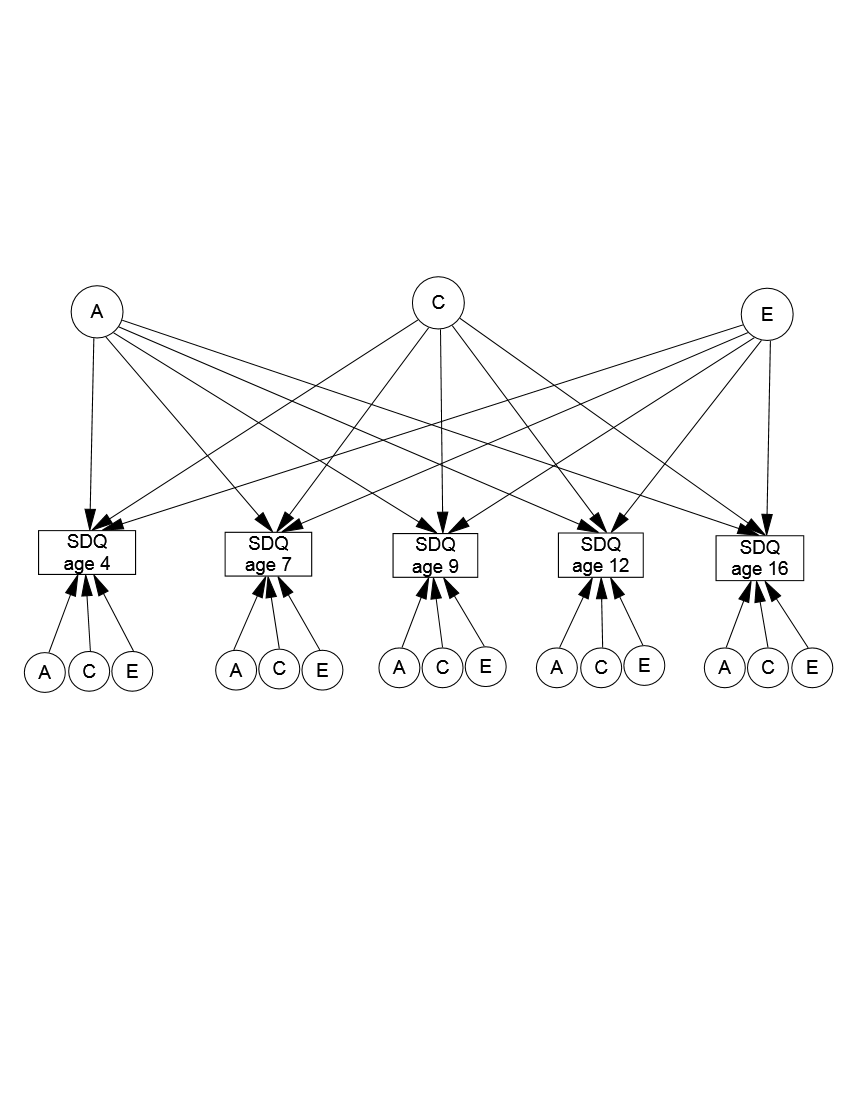
Note: -2LL = -2 log likelihood; ∆-2LL(∆df) = change in -2LL compared to Cholesky; df = degrees of freedom; AIC = Akaike information criterion; Bolded model = best fitting twin model.

Figure 1. The common pathway model for SDQ measures from ages 4 – 16.



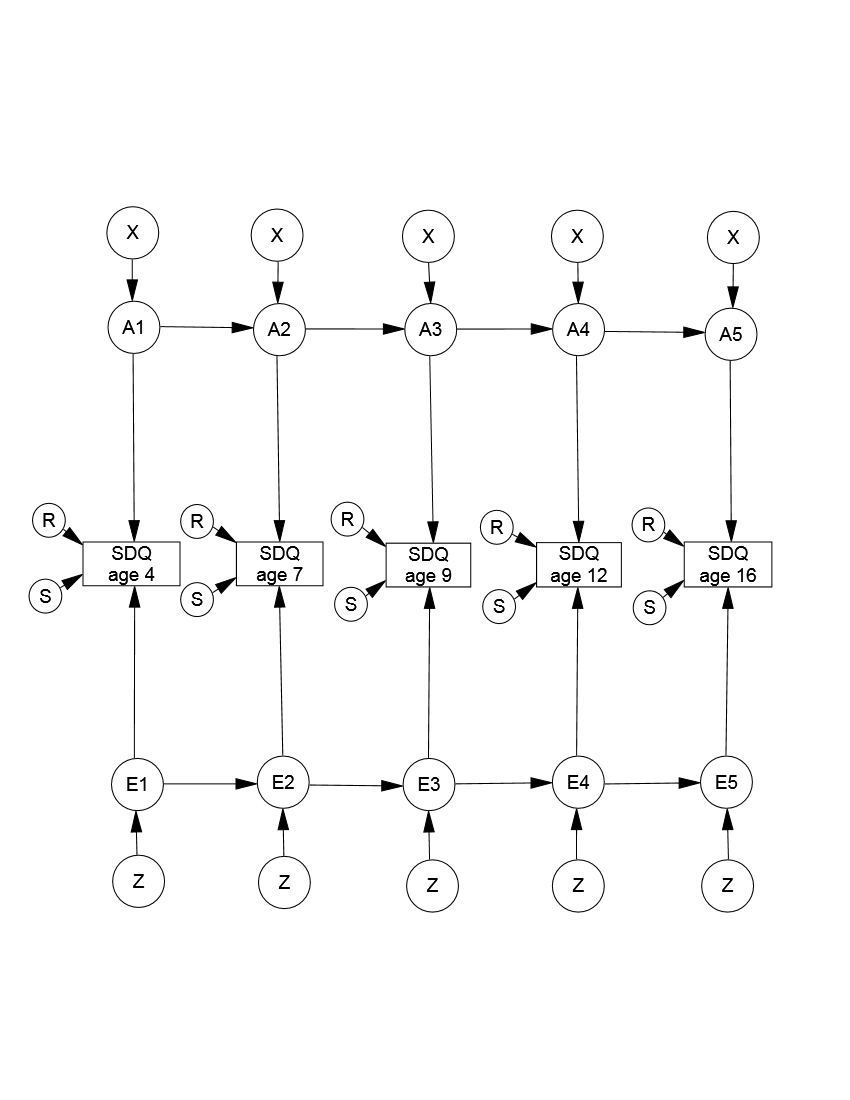
Note. A = additive genetic effects; C = shared-environment effects; E = nonshared-environment effects.

Figure 2.The independent pathway model for SDQ measures from ages 4 – 16.



Note. A = additive genetic effects; C = shared-environment effects; E = nonshared-environment effects.

Figure 3.The SIMPLEX model for SDQ measures from ages 4 – 16.



Note. Note. A = additive genetic effects; E = nonshared-environment effects; Shared-environment effects (C) were modeled in the same fashion as A and E, but are omitted here for clarity of presentation.