**Supplementary Table 1:** Pearsoncorrelation between predicted general factor score and total raw score

|  |  |  |
| --- | --- | --- |
|  | **Child predicted general factor score** | **Parent predicted general factor score** |
|  | PA | 3M | 6M | PA | 3M | 6M |
| Total raw score | 0.96 (< 0.001) | 0.96 (< 0.001) | 0.95 (< 0.001) | 0.93 (<0.001) | 0.94 (<0.001) | 0.94 (<0.001) |
|  | **Child predicted cognitive score** | **Parent predicted cognitive score** |
|  | PA | 3M | 6M | PA | 3M | 6M |
| Raw score | 0.8 (< 0.001) | 0.34 (< 0.001) | 0.8 (< 0.001) | 0.44 (<0.001) | 0.44 (<0.001) | 0.13 (0.006) |
|  | **Child predicted somatic score** | **Parent predicted somatic score** |
|  | PA | 3M | 6M | PA | 3M | 6M |
| Raw score | 0.25 (< 0.001) | 0.7 (< 0.001) | 0.31 (< 0.001) | 0.89 (<0.001) | 0.79 (<0.001) | 0.84 (0.006) |

Note: values in brackets reflect p-value.

**Supplementary Figure 1:** Factor loadings of a two-factor correlated model (Parent)

 **T1 | T2 | T3**

.80 | .73 | .75

.87 | .89 | .94

.92 | .94 | .94

.97 | .95 | .97

.94 | .94 | .94

.75 | .77 | .71

.82 | .93 | .94

.81 | .93 | .89

.82 | .86 | .83

.88 | .93 | .94

.83 | .87 | .89

.86 | .88 | .90

.87 | .89 | .91

.86 | .87 | .86

.86 | .87 | .85

.70 | .69 | .73

.90 | .88 | .90

.90 | .87 | .87

.92 | .95 | .95

.90 | .91 | .93

 Trouble paying attention

Difficulty following directions

 Tired easily

 Tired a lot

 Sick to my stomach

 Seeing double

 Blurriness

 Feel like “going to faint”

 Feel like “room is spinning”

 Confusion

 Dizziness

 Headache

Difficulty learning new things

 Trouble figuring things out

 Problems finishing things

 Forget things

 Daydream too much

 Problems remembering

 Hard time concentrating

 Easily distracted

Note: based on longitudinal invariance model of the parent rating at the configural level. T1 = post-acute, T2 = 3 months, T3 = 6 months

**Supplementary Figure 2:** Factor loadings of a two-factor bifactor model (Parent)

 **T1 | T2 | T3**

 **T1 | T2 | T3**

 Trouble paying attention

.51 | .52 | .48

.77 | .79 | .81

 Easily distracted

.39 | .44 | .46

.82 | .82 | .82

 Hard time concentrating

.59 | .54 | .50

.72 | .79 | .81

 Problems remembering

.47 | .52 | .49

.77 | .71 | .72

Difficulty following directions

.42 | .49 | .48

.81 | .74 | .77

 Daydream too much

.38 | .48 | .41

.59 | .49 | .60

 Confusion

.58 | .66 | .58

.64 | .58 | .62

.46 | .61 | .55

 Forget things

.73 | .63 | .65

 Problems finishing things

.56 | .60 | .54

.67 | .67 | .74

 Trouble figuring things out

.53 | .59 | .55

.68 | .65 | .71

.66 | .61 | .70

Difficulty learning new things

.50 | .63 | .57

.06 | .09 | .21

 Headache

.82 | .73 | .73

.34 | .57 | .64

 Dizziness

.83 | .75 | .73

 Feel like “room is spinning”

.48 | .54 | .66

.79 | .79 | .70

.77 | .75 | .69

 Feel like “going to faint”

.37 | .49 | .53

 Blurriness

.50 | .46 | .51

.70 | .83 | .75

 Seeing double

.58 | .40 | .53

.69 | .85 | .80

 Sick to my stomach

.17 | .29 | .34

.75 | .74 | .65

 Tired a lot

-.20 | -.21 | -.18

.92 | .91 | .92

-.27 | -.32 | -.30

 Tired easily

.96 | .94 | .96

Note: based on longitudinal invariance model for the parent rating at the configural level. T1 = post-acute, T2 = 3 months, T3 = 6 months

**Supplementary Figure 3: Factor loadings of a two-factor correlated model (Child)**

 **T1 | T2 | T3**

.76 | .75 | .76

.85 | .85 | .85

.89 | .93 | .92

.91 | .95 | .95

.92 | .95 | .94

.72 | .79 | .75

.66 | .77 | .77

.76 | .78 | .82

.81 | .85 | .83

.82 | .84 | .84

.79 | .90 | .85

.83 | .91 | .89

.77 | .87 | .89

.81 | .88 | .87

.82 | .89 | .88

.68 | .74 | .76

.78 | .88 | .89

.86 | .85 | .88

.87 | .93 | .93

.81 | .92 | .92

 Trouble paying attention

Difficulty following directions

 Tired easily

 Tired a lot

 Sick to my stomach

 Seeing double

 Blurriness

 Feel like “going to faint”

 Feel like “room is spinning”

 Confusion

 Dizziness

 Headache

Difficulty learning new things

 Trouble figuring things out

 Problems finishing things

 Forget things

 Daydream too much

 Problems remembering

 Hard time concentrating

 Easily distracted

Note: based on longitudinal invariance model of the child rating at the configural level. T1 = post-acute, T2 = 3 months, T3 = 6 months

**Supplementary Figure 4: Factor loadings of a two-factor bifactor model (Child)**

 **T1 | T2 | T3**

 **T1 | T2 | T3**

 Trouble paying attention

.73 | .60 | .65

.49 | .73 | .67

 Easily distracted

.61 | .60 | .63

.56 | .72 | .69

 Hard time concentrating

.72 | .64 | .68

.48 | .69 | .64

 Problems remembering

.71 | .69 | .72

.47 | .49 | .50

Difficulty following directions

.59 | .65 | .69

.53 | .61 | .57

 Daydream too much

.57 | .63 | .64

.36 | .36 | .39

 Confusion

.68 | .77 | .73

.44 | .46 | .49

.66 | .75 | .71

 Forget things

.46 | .44 | .49

 Problems finishing things

.58 | .68 | .69

.52 | .57 | .56

 Trouble figuring things out

.66 | .73 | .67

.50 | .55 | .58

.51 | .56 | .54

Difficulty learning new things

.61 | .71 | .66

.09 | .13 | .22

 Headache

.76 | .74 | .74

.35 | .45 | .54

 Dizziness

.82 | .80 | .75

 Feel like “room is spinning”

.43 | .51 | .59

.78 | .76 | .71

.77 | .80 | .73

 Feel like “going to faint”

.34 | .39 | .48

 Blurriness

.16 | .31 | .41

.75 | .75 | .75

 Seeing double

.24 | .35 | .45

.64 | .73 | .68

 Sick to my stomach

.10 | .11 | .21

.71 | .77 | .72

 Tired a lot

-.35 | -.33 | -.26

.89 | .90 | .92

-.32 | -.34 | -.24

 Tired easily

.87 | .90 | .93

Note: based on longitudinal invariance model for the child rating at the configural level. T1 = post-acute, T2 = 3 months, T3 = 6 months