**SUPPLEMENTARY MATERIAL**

**Supplementary Table S1.** Comparison of characteristics for controls, siblings and patients\*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Group | | | Main effects |
| Variable / group | Controls  (*N* = 499) | Siblings  (*N* = 915) | Patients  (*N* = 908) | All groups  F |
| Age  Gender, % male  Educationa,  Highest degree (Verhage)  Special, %  Ethnicity, % Dutch  IQ, estimatedb  Functional outcome,  Residential independence, %  Financially responsible, %  Social benefit, %  PASc, Overall score  SIS-Rd  Positive  Negative  CAPEe  Positive  Negative  Depression  Diagnostic  % Psychosis  % Mood  % Other  Cognitive Performance  CPT performancef  CPT variance (ms)g  Block Designh  Digit Symboli  Arithmeticj  Informationk  Immediate recalll  Delayed recallm | 29 (10)\*  48\*  5.4 (1.8)  3  91  110 (15)  67  72  2  1.1 (0.6)  0.3 (0.3)  0.2 (0.2)  0.2 (0.2)  0.5 (0.3)  0.6 (0.3)  -  7  1  246 (55)  73 (28)  47 (14)  84 (14)  15 (4)  19 (5)  29 (5)  10 (3) | 28 (8)  45  5.1 (2.1)  6  82  103 (16)  67  72  6  1.1 (0.7)  0.4 (0.4)  0.3 (0.3)  0.2 (0.2)  0.6 (0.4)  0.6 (0.4)    -  11  1  244 (58)  76 (28)  45 (15)  79 (15)  14 (5)  17 (5)  27 (6)  9 (3) | 27 (7)  77  4.0 (2.1)  13  -  95 (16)  44  53  53  2.0 (0.9)  -  -  0.7 (0.5)  1.0 (0.5)  1.0 (0.6)  100  -  -  221 (62)  92 (36)  41 (17)  65 (16)  12 (5)  17 (6)  23 (6)  8 (3) | 14\*x  χ = 222\*y  104\*x  χ = 65\*x  χ = 21\*  175\*x  χ = 134\*y  χ = 89\*y  χ = 435  361\*y  47  35  477\*y  346\*x  189\*y  -  χ = 6  χ = .4  45\*y  93\*y  36\*x  340\*x  89\*x  28\*z  198\*x  157\*x | |

\*Table presents means (SD) or numbers (in %); aEducation (Verhage): range 0 (no education), 3-5 (school diploma) to 8 (university degree); bIQ: Wechsler Adult Intelligence Scale-III (WAIS-III), short form; cPAS: Premorbid Adjustment Scale; dSIS-R: Structured Inventory for Schizotypy – Revised; eCAPE: Community Assessment for Psychic Experiences; fCPT performance: Continuous Performance Test HQ, performance index, gCPT variance (ms): CPT-HQ variance in reaction time (ms); hBlock Design: WAIS-III Block Design; iDigit Symbol: WAIS-III Digit Symbol Substitution Test; jArithmetic: WAIS-III Arithmetic; kInformation: WAIS-III Information; lImmediate recall: Word Learning Task (WLT) immediate recall; mDelayed recall: WLT Delayed recall. For the PAS, higher scores reflect poorer premorbid adjustment. \*x Main effect significant, and patient<sibling<control, \*y Main effect significant, and sibling<patient, \*z Main effect significant, and sibling<control.

**Supplementary Table S2.** Correlations between cognitive measures (*β*) for the non-affected siblings (*N* = 654).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cognitive Variable | | | | | | | |
| Cognitive Variable | CPT  performance | CPT  variance | Block  Design | Digit  Symbol | Arith-  metic | Information | Immediate  Recall | Delayed  Recall |
| CPT performance | - | .44\*\* | 0.03 | 0.17\*\* | 0.06 | 0.07 | 0.12\*\* | 0.09\* |
| CPT variance |  | - | 0.13\*\* | 0.24\*\* | 0.13\*\* | 0.08\* | 0.17\*\* | 0.16\*\* |
| Block Design |  |  | - | 0.36\*\* | 0.49\*\* | 0.41\*\* | 0.19\*\* | 0.21\*\* |
| Digit Symbol |  |  |  | - | 0.36\*\* | 0.34\*\* | 0.29\*\* | 0.27\*\* |
| Arithmetic |  |  |  |  | - | 0.60\*\* | 0.27\*\* | 0.24\*\* |
| Information |  |  |  |  |  | - | 0.31\*\* | 0.29\*\* |
| Immediate Recall |  |  |  |  |  |  | - | 0.77\*\* |
| Delayed Recall |  |  |  |  |  |  |  | - |

\*Correlation significant at the α < 0.05 level; \*\*Correlation significant at the α < 0.01 level

**Supplementary Table S3.** Correlations between non-affected siblings and their probands (*β*), by the sibling’s deduced cognitive subtype

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cognitive Variable | | | | | | | |
| Cognitive Subtypes | CPT  performance | CPT  variance | Block  Design | Digit  Symbol | Arith-  metic | Information | Immediate  Recall | Delayed  Recall |
| Normal profile (Na = 192) | 0.17\* | 0.12 | 0.28\*\* | 0.27\*\* | 0.22\*\* | 0.44\*\* | 0.12 | 0.13 |
| Mixed profile (N = 228) | 0.14\* | 0.12 | 0.22\*\* | 0.10 | 0.15\* | 0.39\*\* | 0.13 | 0.02 |
| Impaired Profile (N = 234) | -0.08 | 0.11 | 0.25\*\* | 0.18\*\* | 0.08 | 0.34\*\* | 0.13 | 0.24\*\* |
| Overall (N = 654) | 0.13\* | 0.16\*\* | 0.35\*\* | 0.25\*\* | 0.30\*\* | 0.47\*\* | 0.17\*\* | 0.18\*\* |

aN = Number of sibling pairs; \*Correlation significant at the α < 0.05 level; \*\*Correlation significant at the α < 0.01 level

**Supplementary Table S4**. Comparisons of clinical, functional, and cognitive differences among sibling’s profiles

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Siblings | | Probands | | Siblings versus  Probands |
| Cognitive profile | Clinicala | Functionalb | Clinical | Functional | Effect Sizec |
| Normal | + | + | +- | +- | L |
| Mixed | + | + | +- | +- | M |
| Impaired | +- | +- | - | - | S |

aClinical measures: Structured Interview for Schizotypy – Revised (SIS-R); Positive And Negative Syndrome Scale (PANSS);

bFunctional: Sociodemographical Schedule, Comprehensive Assessment of Symptoms History (CASH); cEffect size: Effect size of the cognitive differences between siblings and their proband.

Abbreviations: + = Good; +- = Reasonable; - = Poor; S = Small (0.2-0.5); M = Moderate (0.5-0.8); L = Large (>0.8).