**Supplemental materials**

**Table S1:** Mean baseline T-scores for cognitive measures of CHR Trauma subgroups (Multiple Trauma Types +/Present; Multiple Trauma Types -/Absent) and HC

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **CHR** | | | | **HC** | |
|  |  | **Multiple Trauma Types**  **(-)** | | **Multiple Trauma Types**  **(+)** | |  | |
| **Total N** |  | 333 | | 293 | | 279 | |
| **Non-social cognition** |  | **M** | **SE** | **M** | **SE** | **M** | **SE** |
| *Processing speed* | ***TMT*** | 41.5 | .66 | 41.1 | .70 | 46.0 | .74 |
| ***BACS*** | 39.9 | .84 | 42.4 | .82 | 49.2 | .90 |
| ***Fluency*** | 47.4 | .68 | 49.6 | .63 | 52.5 | .69 |
| *Verbal learning* | ***HVLT*** | 43.1 | .61 | 44.6 | .62 | 47.4 | .60 |
| *Working memory* | ***WMS*** | 43.4 | .74 | 45.3 | .69 | 49.2 | .73 |
| ***LNS*** | 42.2 | .63 | 44.4 | .69 | 48.4 | .67 |
| *Reasoning/Problem solving* | ***Mazes*** | 41.2 | .59 | 43.6 | .63 | 44.8 | .66 |
| *Visual learning* | ***BVMT*** | 40.0 | .67 | 40.8 | .67 | 44.9 | .63 |
| *Attention/Vigilance* | ***CPT/IP*** | 37.1 | .72 | 39.8 | .72 | 45.4 | .74 |
| **Social cognition** |  |  |  |  |  |  |  |
| *ToM* | ***TASIT*** | 48.2 | .60 | 50.1 | .58 | 53.1 | .54 |
| *Emotion perception* | ***ER40*** | 49.6 | .56 | 49.9 | .52 | 51.9 | .51 |
| ***EDF40*** | 49.3 | .57 | 49.5 | .63 | 52.2 | .57 |
| *Social perception* | ***RAD*** | 48.0 | .63 | 49.5 | .58 | 53.2 | .54 |

CHR; Clinical High-Risk group, HC; Healthy Controls, TMT; Trail Making Test, BACS; Brief Assessment of Cognition in Schizophrenia: Symbol

Coding, Fluency; Category Fluency, HVLT; Hopkins Verbal Learning Test: Revised, WMS; Wechsler Memory Scale: Spatial Span, LNS; Letter

Number Span, Mazes; Neuropsychological Assessment Battery: Mazes, BVMT; Brief Visuospatial Memory Test: Revised, CPT/IP; Continuous

Performance Test: Identical Pairs, TASIT; The Awareness of Social Inference Test, ER40; The Penn Emotion Recognition task, EDF40; Penn Emotion

Differentiation task, RAD; Relationship Across Domains.

**Table S2:** Demographic characteristics for CHR Converters. *‘Baseline only’* refers to a subgroup of CHR converters who only completed baseline cognitive assessment. *‘Baseline and Follow-up’* refers to a group with cognitive data available at two time-points (baseline and at time of conversion).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **CHR Converters** | | | |
|  | Baseline Only | Baseline and Follow-up | Statistical analysis | p-value |
| **Total N** | **29** | **45** | n/a | n/a |
| **Sex (N, %)** |  |  |  |  |
| *Female* | 46.4% | 34.1% | χ2=1.09 | 0.295 |
| *Male* | 53.6% | 65.9% |  |  |
| **Age (M, SD)** | 18.1 (3.5) | 18.1 (3.2) | t=-0.06 | 0.952 |
| **Education (in y)**  **(M, SD)** | 11.4 (2.8) | 11.2 (2.3) | t=0.25 | 0.802 |

**Additional analysis:**

Group differences in baseline non-social and social cognitive measures between CHR/Multiple Trauma Types + and CHR/Multiple Trauma Types - were evaluated using a Repeated-measures analysis of covariance (RM-ANCOVA). Here the measures of cognitive functioning (either non-social or social cognition) were the within-subject factor, and CHR subgroup (Multiple Trauma Types + /Multiple Trauma Types -) the between-subject factor.

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Results:

For non-social cognition: (F(1, 543)=1.89, p=0.196), adjusted for sex, baseline age, years of education

For social cognition: F(1, 542)=1.45, p=0.230), adjusted for sex, baseline age, years of education

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S3:** Baseline and follow-up Mean t-scores for CHR individuals who converted to full-threshold psychosis, split by Childhood trauma (Multiple Trauma Types +/Present;  Multiple Trauma Types -/Absent)   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | **Converters**  Multiple Trauma Types  (-) | | | | **Change in mean score** | **Converters**  Multiple Trauma Types  (+) | | | | **Change in mean score** | **Baseline score comparison between Mutliple Trauma Types +/ Multiple Trauma Types -**  **Individual ANCOVAs** | | | **Linear Mixed Models** | | | | **Total N (%)** | 34 (45.9) | | | |  | 40 (54.1) | | | |  | Statistical analysisa | | | Statistical analysis | | | |  | **Baseline** | | **Follow-up** | |  | **Baseline** | | **Follow-up** | |  | **Baseline scores comparison**  **Multiple Trauma Types +/ -** | p-value | Cohen’s d | β  Time  (p-value) | β  Group  (p-value) | β  Group\*Time  (p-value) | | **Non-social cognition** | **M1** | **SE** | **M2** | **SE** | (M2 – M1) | **M1** | **SE** | **M2** | **SE** | (M2 – M1) |  |  |  |  |  |  | | *TMT* | 36.3 | 2.1 | 41.1 | 2.9 | 4.8 | 41.0 | 1.7 | 42.1 | 2.6 | 1.1 | F=1.90 | 0.172 | 0.35 | 3.58 (1.56) | 1.82 (.543) | 0.41 (.901) | | *BACS* | 34.2 | 2.4 | 32.4 | 2.7 | -1.8 | 42.0 | 2.0 | 39.7 | 2.9 | -2.3 | F=2.17 | 0.146 | 0.38 | -2.49 (.369) | 3.81 (.196) | 2.67 (.463) | | *Fluency* | 43.9 | 2.1 | 43.2 | 2.6 | -0.7 | 46.8 | 1.9 | 46.0 | 1.9 | -0.8 | F=0.13 | 0.716 | 0.09 | -1.57 (2.57) | 1.08 (.701) | 1.45 (.670) | | *HVLT* | 39.1 | 1.7 | 40.2 | 1.9 | 1.1 | 44.0 | 1.6 | 44.1 | 2.1 | 0.1 | F=0.91 | 0.345 | 0.25 | 1.82 (.376) | 2.47 (.278) | -0.63 (.816) | | *WMS* | 40.6 | 3.0 | 42.9 | 2.7 | 2.3 | 43.5 | 2.2 | 39.7 | 1.9 | -3.8 | F=0.01 | 0.907 | 0.03 | 1.46 (.641) | -.54 (868) | -2.99 (.466) | | *LNS* | 37.9 | 2.2 | 41.5 | 2.4 | 3.6 | 41.1 | 2.1 | 40.8 | 2.4 | -0.3 | F=0.06 | 0.812 | 0.06 | 1.92 (.432) | -.92 (.732) | -1.31 (.677) | | *Mazes* | 40.5 | 2.1 | 41.3 | 1.5 | 0.8 | 41.6 | 1.5 | 42.6 | 2.5 | 1.0 | F=0.05 | 0.832 | 0.06 | .53 (.811) | -1.01 (.667) | 2.35 (.424) | | *BVMT* | 32.7 | 2.2 | 37.4 | 2.4 | 4.7 | 37.5 | 2.0 | 36.0 | 2.8 | -1.5 | F=1.04 | 0.311 | 0.26 | 4.21 (.118) | 2.20 (.460) | -5.10 (.159) | | *CPT/IP* | 33.3 | 2.5 | 36.2 | 2.8 | 2.9 | 38.2 | 2.0 | 36.8 | 2.3 | -1.4 | F=0.05 | 0.818 | 0.06 | 1.31 (.560) | .72 (.774) | -0.24 (.935) | | **Social cognition** |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  | | *TASIT* | 45.8 | 2.4 | 49.7 | 2.4 | 3.9 | 47.5 | 2.2 | 51.0 | 2.4 | 3.5 | F=0.19 | 0.664 | 0.11 | 3.58 (1.56) | 1.82 (.543) | 0.43 (.867) | | *RAD* | 49.4 | 2.1 | 49.6 | 2.7 | 0.2 | 47.7 | 1.7 | 49.6 | 2.2 | 1.9 | F=3.59 | 0.063 | 0.39 | .08 (.964) | -4.01 (.109) | 3.62 (.151) | | *ER40* | 49.8 | 1.7 | 50.9 | 2.3 | 1.1 | 50.9 | 1.6 | 49.4 | 2.5 | -1.5 | F=0.01 | 0.907 | 0.02 | .83 (.676) | -.22 (.933) | -1.39 (.616) | | *EDF40* | 47.4 | 1.9 | 48.6 | 3.0 | 1.2 | 49.9 | 1.8 | 50.1 | 1.6 | 0.2 | F=0.01 | 0.933 | 0.06 | -.17 (.944) | .52 (.832) | 0.24 (.464) |   M1; Mean t-score at Baseline; M2; Mean t-score at Follow-up; β (Time): Effect of Time; β (Group\*Time): Interaction/Group effects over time  TMT; Trail Making Test, BACS; Brief Assessment of Cognition in Schizophrenia: Symbol Coding, Fluency; Category Fluency, HVLT; Hopkins Verbal Learning  Test: Revised, WMS; Wechsler Memory Scale: Spatial Span, LNS; Letter Number Span, Mazes; Neuropsychological Assessment Battery: Mazes, BVMT;  Brief Visuospatial Memory Test: Revised, CPT/IP; Continuous Performance Test: Identical Pairs, TASIT; The Awareness of Social Inference Test, ER40;  The Penn Emotion Recognition task, EDF40; Penn Emotion Differentiation task, RAD; Relationship Across Domains  aAdjusted for sex, baseline age and years of education |