Supplementary materials

**Supplementary Figure S1**: Distribution of trauma on the five subscales of CTQ.

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*Note*: The figure shows the percentage of patients, unaffected co-twins and healthy controls reporting none, mild, moderate or severe levels of trauma on the five subscales of CTQ, based on the Danish norms calculated separately for males and females (Bernstein & Fink 2011).

**Supplementary Table S1**: Inclusion of all available risk factors

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Models** | **N** | **Estimate** | **Std error** | **P-value** | **Odds ratio**  **[CI 95%]** | **Pseudo-R2** | **AIC** |
| **Proband pairs vs healthy control pairs** | | | | | | | |
| Intercept  CTQ total  PRS  Cannabis factor 1  Cannabis factor 2  Premorbid IQ  Paternal age  Smoking preg.  Winter birth  Birth weight  Birth comp.  Urbanicity | 127 | -0.79  1.49  0.26  0.51  2.03  0.44  -0.03  0.74  0.23  0.56  0.50  0.64 | 0.57  0.47  0.24  0.50  0.89  0.25  0.24  0.49  0.46  0.26  0.49  0.63 | .165  **< .001**  .287  .301  **.022**  .082  .891  .130  .616  **.031**  .302  .312 | 0.45 [0.15 - 1.39]  4.46 [1.77 - 11.25]  1.30 [0.82 - 2.06]  1.67 [0.63 - 4.43]  7.64 [1.34 – 43.66]  1.55 [0.95 – 2.55]  0.97 [0.61 – 1.54]  2.09 [0.80 -5.46]  1.26 [0.51 – 3.10]  1.75 [1.05 – 2.90]  1.65 [0.64 – 4.27]  1.90 [0.55 – 6.56] | 0.25 | 156.19 |
| **Patients vs unaffected co-twins** | | | | | | | |
| Intercept  CTQ total  PRS  Cannabis factor 1  Cannabis factor 2  Birth weight  Birth complications  Premorbid IQ | 65 | -0.22  0.29  0.08  0.27  1.04  0.15  -0.21  -0.17 | 0.48  0.34  0.31  0.58  0.73  0.27  0.57  0.26 | .637  .384  .804  .643  .152  .567  .715  .501 | -0.80 [0.31 – 2.03]  1.34 [0.69 – 2.59]  1.08 [0.58 -2.00]  1.31 [0.42 – 4.09]  2.83 [0.68 – 11.75]  1.17 [0.69 – 1.98]  0.81 [0.27 – 2.48]  0.84 [0.51 – 1.39] | 0.05 | 102.01 |

*Note*: CTQ: Childhood trauma questionnaire, PRS: Polygenic risk score, Smoking preg: Maternal smoking during pregnancy, Cannabis factor 1: Tried a few times, Cannabis factor 2: Regular use.

**Supplementary Table S2**: Subgroup analyses based on zygosity

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Models** | **N** | **Estimate** | **Std error** | **P-value** | **Odds ratio**  **[CI 95%]** | **Pseudo-R2** | **AIC** |
| **Proband pairs vs healthy control pairs** | | | | | | | |
| **MZ** | | | | | | | |
| Intercept  CTQ total  PRS  Cannabis factor 1  Cannabis factor 2 | 113 | -0.12  1.23  0.50  0.56  2.23 | 0.33  0.42  0.24  0.47  1.15 | .711  **.004**  **.034**  .233  *.052.* | 0.89 [0.47 – 1.68]  3.42 [1.49 – 7.81]  1.65 [1.04 – 2.64]  1.75 [0.70 – 4.38]  9.29 [0.98 – 88.51] | 0.34 | 146.72 |
| **DZ** | | | | | | | |
| Intercept  CTQ total  PRS  Cannabis factor 1  Cannabis factor 2 | 78 | 0.12  1.92  0.45  0.55  2.07 | 0.46  0.62  0.31  0.62  0.93 | .790  **.002**  .140  .373  **.025** | 1.13 [0.46 – 2.77]  6.80 [2.02 – 22.90]  1.57 [0.86 – 2.88]  1.73[0.52 – 5.82]  7.93 [1.29 – 48.61] | 0.46 | 95.79 |
| **Patients vs unaffected co-twins** | | | | | | | |
| **MZ** | | | | | | | |
| Intercept  CTQ emotional abuse  CTQ sexual abuse Cannabis factor 1  Cannabis factor 2 | 60 | -0.10  0.43  -0.41  0.12  1.70 | 0.41  0.29  0.41  0.60  0.93 | .813  .141  .318  .847  .0685 | 0.91 [0.41 - 2.01]  1.53 [0.87 – 2.72]  0.66 [0.29 – 1.49]  1.12 [0.35 – 3.62]  5.44 [0.88 – 33.65] | 0.15 | 95.13 |
| **DZ** | | | | | | | |
| Intercept  CTQ emotional abuse  CTQ sexual abuse Cannabis factor 1  Cannabis factor 2 | 44 | -0.89  0.43  0.16  0.39  1.24 | 0.59  0.35  0.22  0.76  0.91 | .135  .223  .502  .609  .171 | 0.41 [0.13 – 1.32]  1.53 [0.77 – 3.05]  1.18 [0.73 – 1.90]  1.48 [0.33 – 6.58]  3.46 [0.59 – 20.40] | 0.17 | 73.54 |

**Supplementary Table S3**: History of obstetric complications

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MZ PR | DZ PR | MZ HC | DZ HC |
| No (N pairs) | 14 | 9 | 11 | 9 |
| Only 1 twin (N pairs) | 3 | 5 | 6 | 5 |
| Both twins (N pairs ) | 8 | 10 | 9 | 5 |

*Note*: Information from the 94 twin pairs where data was available (either register or clinical) from both twins in a twin pair.