Table 3 Incidence rate ratios for suicidal behaviour with respect to ADHD and psychiatric comorbidity

| Interaction modelsa | No. with suicidal behaviour | (%) | Main analysis, IRR (95% CI)b | Sensitivity analyses, IRR (95% CI)c |
| --- | --- | --- | --- | --- |
| Any disorder |
|  No psychiatric disorder | 21 780 | (0.04) | 1 | 1 |
|  ADHD | 183 | (0.12) | 4.09 (3.53–4.73)\*\*\* | 3.08 (2.67–3.57)\*\*\* |
|  Any other psychiatric disorder | 13 278 | (0.29) | 14.84 (14.52–15.17)\*\*\* | 10.30 (10.05–10.56)\*\*\* |
|  ADHD and any comorbid disorder | 499 | (0.25) | 10.43 (9.53–11.41)\*\*\* | 7.19 (6.57–7.86)\*\*\* |
| Substance use disorder |
|  No ADHD, no substance use disorder | 30 455 | (0.05) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.90 (2.51–3.36)\*\*\* | 2.03 (1.75–2.34)\*\*\* |
|  Substance use disorder | 4646 | (0.39) | 25.12 (24.32–25.95)\*\*\* | 10.94 (10.55–11.34)\*\*\* |
|  ADHD and substance use disorder | 118 | (0.32) | 21.55 (17.98–25.83)\*\*\* | 8.53 (7.11–10.23)\*\*\* |
| Schizophreniad |
|  No ADHD, no schizophrenia | 33 406 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.71 (2.34–3.13)\*\*\* | 1.75 (1.51–2.03)\*\*\* |
|  Schizophrenia | 1697 | (0.20) | 14.23 (13.55–14.95)\*\*\* | 4.32 (4.10–4.55)\*\*\* |
|  ADHD and schizophrenia | 33 | (0.21) | 17.26 (12.27–24.29)\*\*\* | 5.64 (4.01–7.94)\*\*\* |
| Schizophrenia spectrum disorders (SSD) |
|  No ADHD, no SSD | 32 146 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.78 (2.40–3.22)\*\*\* | 1.85 (1.60–2.14)\*\*\* |
|  SSD | 2955 | (0.23) | 13.41 (12.91–13.94)\*\*\* | 5.13 (4.92–5.35)\*\*\* |
|  ADHD and SSD | 78 | (0.26) | 16.35 (13.09–20.43)\*\*\* | 6.24 (4.99–7.80)\*\*\* |
| Affective disorders |
|  No ADHD, no affective disorders | 29 616 | (0.05) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.98 (2.57–3.45)\*\*\* | 2.04 (1.77–2.36)\*\*\* |
|  Affective disorders | 5486 | (0.33) | 15.61 (15.15–16.08)\*\*\* | 9.22 (8.93–9.52)\*\*\* |
|  ADHD and affective disorders | 130 | (0.31) | 16.61 (13.97–19.73)\*\*\* | 7.49 (6.30–8.91)\*\*\* |
| Depressione |
|  No ADHD, no depression | 34 400 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.64 (2.28–3.05)\*\*\* | 1.67 (1.45–1.94)\*\*\* |
|  Depression | 705 | (0.23) | 13.97 (12.96–15.06)\*\*\* | 6.15 (5.70–6.64)\*\*\* |
|  ADHD and depression | 16 | (0.22) | 13.85 (8.48–22.61)\*\*\* | 4.55 (2.78–7.42)\*\*\* |
| Bipolar disordere |
|  No ADHD, no bipolar disorder | 34 400 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.64 (2.28–3.05)\*\*\* | 1.67 (1.45–1.94)\*\*\* |
|  Bipolar disorder | 705 | (0.23) | 13.97 (12.96–15.06)\*\*\* | 6.15 (5.70–6.64)\*\*\* |
|  ADHD and bipolar disorder | 16 | (0.22) | 13.85 (8.48–22.61)\*\*\* | 4.55 (2.78–7.42)\*\*\* |
| Anxiety, dissociative, stress-related, and somatoform disorders (ADSO) |
|  No ADHD, no ADSO | 33 558 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.70 (2.34–3.13)\*\*\* | 1.71 (1.48–1.98)\*\*\* |
|  ADSO | 1545 | (0.19) | 6.13 (5.83–6.46)\*\*\* | 3.51 (3.33–3.69)\*\*\* |
|  ADHD and ADSO | 35 | (0.18) | 6.88 (4.94–9.59)\*\*\* | 3.00 (2.15–4.18)\*\*\* |
| Anxietyf |
|  No ADHD, no Anxiety | 31 951 | (0.12) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.90 (2.51–3.36)\*\*\* | 1.87 (1.62–2.17)\*\*\* |
|  Anxiety | 3144 | (0.25) | 9.09 (8.76–9.44)\*\*\* | 5.04 (4.85–5.24)\*\*\* |
|  ADHD and Anxiety | 234 | (0.12) | 7.02 (6.16–7.98)\*\*\* | 4.22 (3.71–4.80)\*\*\* |
| Obsessive compulsive disorder (OCD)f |
|  No ADHD, no OCD | 34 856 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.64 (2.28–3.05)\*\*\* | 1.65 (1.43–1.91)\*\*\* |
|  OCD | 249 | (0.17) | 4.33 (3.82–4.90)\*\*\* | 2.99 (2.64–3.38)\*\*\* |
|  ADHD and OCD | 9 | (0.19) | 5.35 (2.78–10.28)\*\*\* | 3.17 (1.65–6.10)\*\*\* |
| Post-traumatic stress disorder (PTSD)f |
|  No ADHD, no PTSD | 34 858 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.63 (2.27–3.04)\*\*\* | 1.65 (1.43–1.91)\*\*\* |
|  PTSD | 246 | (0.30) | 10.64 (9.39–12.07)\*\*\* | 5.14 (4.53–5.83)\*\*\* |
|  ADHD and PTSD | 12 | (0.46) | 27.79 (15.78–48.95)\*\*\* | 8.87 (5.03–15.62)\*\*\* |
| Eating disorders |
|  No ADHD, no eating disorders | 34 334 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.66 (2.30–3.08)\*\*\* | 1.67 (1.45–1.94)\*\*\* |
|  Eating disorders | 770 | (0.30) | 6.28 (5.84–6.75)\*\*\* | 5.11 (4.75–5.49)\*\*\* |
|  ADHD and eating disorders | 15 | (0.46) | 14.15 (8.53–23.48)\*\*\* | 6.33 (3.97–10.94)\*\*\* |
| Personality disorders |
|  No ADHD, no SSD | 31 236 | (0.05) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.77 (2.39–3.21)\*\*\* | 1.88 (1.63–2.18)\*\*\* |
|  SSD | 3860 | (0.30) | 14.22 (13.74–14.71)\*\*\* | 6.66 (6.42–6.91)\*\*\* |
|  ADHD and SSD | 112 | (0.29) | 17.25 (14.32–20.77)\*\*\* | 6.33 (5.25–7.62)\*\*\* |
| Intellectual disability |
|  No ADHD, no intellectual disability | 34 843 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.64 (2.28–3.05)\*\*\* | 1.65 (1.42–1.91)\*\*\* |
|  Intellectual disability | 259 | (0.18) | 5.03 (4.45–5.69)\*\*\* | 1.47 (1.30–1.67)\*\*\* |
|  ADHD and intellectual disability | 25 | (0.19) | 5.06 (3.42–7.49)\*\*\* | 1.93 (1.30–2.86)\*\*\* |
| Autism spectrum disorders (ASD) |
|  No ADHD, no ASD | 34 951 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.12) | 2.63 (2.27–3.05)\*\*\* | 1.64 (1.42–1.90)\*\*\* |
|  ASD | 154 | (0.11) | 2.31 (1.98–2.71)\*\*\* | 1.19 (1.02–1.40)\* |
|  ADHD and ASD | 30 | (0.19) | 4.65 (3.25–6.66)\*\*\* | 2.66 (1.86–3.81)\*\*\* |
| Oppositional defiant disorder/ Conduct disorder (ODD/CD)g |
|  No ADHD, no ODD/CD | 34 749 | (0.06) | 1 | 1 |
|  ADHD | 183 | (0.00) | 2.65 (2.29–3.07)\*\*\* | 1.67 (1.45–1.94)\*\*\* |
|  ODD/CD | 309 | (0.00) | 5.80 (5.18–6.49)\*\*\* | 2.93 (2.62–3.28)\*\*\* |
|  ADHD and ODD/CD | 129 | (0.00) | 5.44 (4.57–6.47)\*\*\* | 2.95 (2.48–3.51)\*\*\* |
| No of comorbid disorders |
|  No ADHD | 35 058 | (0.06) | 1 | 1 |
|  ADHD only | 183 | (0.12) | 2.64 (2.28–3.05)\*\*\* | 1.58 (1.37–1.83)\*\*\* |
|  ADHD + 1 comorbid disorder | 93 | (0.23) | 4.76 (3.88–5.84)\*\*\* | 2.67 (2.17–3.27)\*\*\* |
|  ADHD + 2 comorbid disorders | 67 | (0.19) | 4.41 (3.47–5.61)\*\*\* | 2.24 (1.76–2.84)\*\*\* |
|  ADHD + at least 3 comorbid disorders | 339 | (0.27) | 8.20 (7.36–9.13)\*\*\* | 3.71 (3.33–4.13)\*\*\* |

a. The group of persons with ADHD was restricted to only include those with no comorbid disorders for more valid comparison. This group is therefore identical for each analysis. Furthermore, those with psychiatric comorbidity, for instance substance use disorder, could also have been diagnosed with other comorbid psychiatric disorders, such as affective disorders.

b. Adjusted for age, sex and year.

c. Adjusted for age, sex, year, co-habitational status, SES, educational level and parents’ suicide attempts.

d. Subgroup of schizophrenia spectrum disorders.

e. Subgroup of affective disorders.

f. Subgroup of anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders (ADSO).

g. Subgroup of neurodevelopmental disorders.

\**P*-value < 0.05, \*\**P*-value < 0.01, \*\*\**P*-value < 0.001.