**Table 1** Descriptive statistics of the variables used in the analysis

|  |  |  |  |
| --- | --- | --- | --- |
|  | *N* | % dental event | Chi sq. (df), *p*-value |
| **Age group** |  |  |  |
| 18 - 24 | 1,480 | 10.5% | 24.9 (1), <0.001 |
| 25 - 34 | 3,490 | 7.0% |  |
| 35 - 50 | 7,597 | 7.1% |  |
| 51 - 60 | 2,885 | 7.4% |  |
| 61 - 70 | 1,550 | 6.6% |  |
| > 70 | 1,997 | 6.8% |  |
| **Gender** |  |  |  |
| Male | 8,828 | 6.1% | 35.3 (1), <0.001 |
| Female | 10,171 | 8.4% |  |
| **Ethnicity** |  |  |  |
| British | 8,679 | 8.1% | 32.7 (6), <0.001 |
| Irish | 596 | 8.6% |  |
| African/Caribbean | 5,287 | 7.5% |  |
| Asian/South Asian | 1,075 | 5.2% |  |
| Any other white background | 1,458 | 5.9% |  |
| Other ethnicity | 1,276 | 5.3% |  |
| Not Stated | 628 | 5.1% |  |
| **Index of Multiple Deprivation National Decile Score** |  |  |  |
| 0 | 440 | 7.3% | 15.1 (10), 0.130 |
| 1 | 1,049 | 7.1% |  |
| 2 | 5,868 | 7.7% |  |
| 3 | 5,061 | 7.3% |  |
| 4 | 2,786 | 7.3% |  |
| 5 | 1,711 | 6.1% |  |
| 6 | 767 | 8.6% |  |
| 7 | 449 | 8.5% |  |
| 8 | 440 | 6.8% |  |
| 9 | 296 | 3.4% |  |
| 10 | 132 | 7.6% |  |
| **HoNOS subscales** |  |  |  |
| Problem-drinking/Drug-taking |  |  |  |
| 0 | 12,298 | 6.9% | 20.9 (5), 0.001 |
| 1 | 1,503 | 8.7% |  |
| 2 | 1,047 | 8.2% |  |
| 3 | 746 | 10.5% |  |
| 4 | 219 | 9.1% |  |
| Not Recorded | 3,186 | 7.2% |  |
| Physical illness or Disability |  |  |  |
| 0 | 8,778 | 6.4% | 30.4 (5), <0.001 |
| 1 | 2,829 | 7.9% |  |
| 2 | 2,317 | 8.4% |  |
| 3 | 1,500 | 9.9% |  |
| 4 | 448 | 7.6% |  |
| Not Recorded | 3,127 | 7.2% |  |
| **Smoking** |  |  |  |
| Yes | 11,619 | 8.0% | 21.6 (1), <0.001 |
| No | 7,380 | 6.2% |  |
| **Diabetes** |  |  |  |
| Yes | 3,205 | 8.9% | 14.5 (1). <0.001 |
| No | 15,794 | 7.0% |  |
|  |  |  |  |

**Table 2** Logistic Regression Models

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Odds Ratio (95%) CI | | | |
|  | Unadjusted | Mutually adjusted | | |
|  | Model 1 | Model 2 | Model 3 |
|  |  |  |  |  |
| **Age** (per 10 years) | 0.96 [0.93, 0.99] \* | 0.90 [0.86, 0.93] \*\*\* | 0.90 [0.86, 0.94] \*\*\* | 0.90 [0.87, 0.94] \*\*\* |
| **Gender** (Female) | 1.40 [1.25, 1.57] \*\*\* | 1.48 [1.31, 1.68] \*\*\* | 1.41 [1.24, 1.60] \*\*\* | 1.37 [1.20, 1.56] \*\*\* |
| **Ethnicity** |  |  |  |  |
| British | 1 (base) | 1 (base) | 1 (base) | 1 (base) |
| Irish | 1.06 [0.79, 1.43] | 0.96 [0.69, 1.35] | 0.95 [0.68, 1.33] | 0.95 [0.68, 1.33] |
| African/Caribbean | 0.92 [0.81, 1.04] | 0.84[0.72, 0.97] | 0.92 [0.79, 1.07] | 0.95 [0.81, 1.10] |
| Asian/South Asian | 0.62 [0.47, 0.82] \*\* | 0.65 [0.48, 0.88] \*\* | 0.68 [0.50, 0.92] \* | 0.70 [0.51, 0.94] \* |
| Any other white background | 0.71 [0.56, 0.90] \*\* | 0.75 [0.59, 0.97] \* | 0.77 [0.60, 0.99] \* | 0.77 [0.60, 0.98] \* |
| Other ethnicity | 0.64 [0.49, 0.83] \*\* | 0.63 [0.47, 0.84] \*\* | 0.65 [0.49, 0.87] \*\* | 0.65 [0.48, 0.86] \*\* |
| **Index of Multiple Deprivation** |  |  |  |  |
| National Decile Score | 0.98 [0.95, 1.01] | 0.99 [0.96, 1.03] | 0.99 [0.96, 1.03] | 0.99 [0.96, 1.03] |
| **HoNOS subscales** |  |  |  |  |
| Problem-drinking/Drug-taking | 1.13 [1.07, 1.20] \*\*\* | 1.12 [1.05, 1.19] \*\*\* | 1.11 [1.04, 1.18] \*\*\* | 1.12 [1.05, 0.19] \*\*\* |
| Physical illness or Disability | 1.13 [1.08, 1.19] \*\*\* | 1.18 [1.12, 1.25] \*\*\* | 1.17 [1.10, 1.23] \*\*\* | 1.16 [1.10, 1.23] \*\*\* |
| **Smoking** | 1.17 [0.98, 1.39] | 1.35 [1.06, 1.43] \*\*\* | 1.36 [1.17, 1.58] \*\*\* | 1.51 [1.31, 1.76] \*\*\* |
| **Diabetes** | 1.30 [1.14, 1.49] \*\*\* | 1.24 [1.06, 1.43] \* | 1.24 [1.07, 1.45] \*\*\* | 1.34 [1.15, 1.56] \*\*\* |
| **Medication** |  |  |  |  |
| Antidepressant | 1.62 [1.45, 1.80] \*\*\* | - | 1.48 [1.31, 1.68] \*\*\* | - |
| Antipsychotic | 1.06 [0.95, 1.18] | - | 0.85 [0.74, 0.98] \* | - |
| **SMI Diagnosis** |  |  |  |  |
| Schizophrenia | 0.77 [0.68, 0.86] | - | - | 0.86 [0.69, 1.06] |
| Schizoaffective | 0.95 [0.79, 1.16] | - | - | 0.96 [0.77, 1.18] |
| Bipolar | 1.01 [0.86, 1.17] | - | - | 1.02 [0.83, 1.25] |
| Depressive/Recurrent Depressive | 1.31 [1.17, 1.47] | - | - | 1.36 [1.11, 1.68] \*\* |
| \*significant at *p* < 0.05; \*\*significant at *p* < 0.01; \*\*\*significant at *p* < 0.001 | | | |  |

**Figure 1** Forest plot of unadjusted logistic regression model

