**Supplementary tables**

Table S1: Association between types of serious illnesses and pain outcomes

|  |  |  |  |
| --- | --- | --- | --- |
|  | **CWP vs no pain** | **CRP vs no pain** | **Other pain vs no pain** |
|  | RRR (95% CI) | P value | RRR (95% CI) | P value | RRR (95% CI) | P value |
| **Model 1** |  |  |  |  |  |  |
| No illness | 1 |  | 1 |  | 1 |  |
| Other serious illness | 1.93 (1.29 -2.89) | .001 | 1.06 (0.77 -1.45) | .74 | 0.82 (0.54 -1.25) | .35 |
| Disabling illness | 1.46 (1.02 -2.07) | .038 | 1.37 (1.07 -1.75) | .012 | 1.15 (0.84 -1.57) | .39 |
| **Model 2** |  |  |  |  |  |  |
| No illness | 1 |  | 1 |  | 1 |  |
| Other serious illness | 1.72 (1.13 -2.63) | .012 | 1.00 (0.72 -1.39) | .98 | 0.82 (0.53 -1.25) | .36 |
| Disabling illness | 1.26 (0.87 -1.83) | .22 | 1.31 (1.01 -1.68) | .038 | 1.17 (0.85 -1.61) | .34 |
| **Model 3** |  |  |  |  |  |  |
| No illness | 1 |  | 1 |  | 1 |  |
| Other serious illness | 1.70 (1.10 -2.61) | .016 | 0.99 (0.71 -1.38) | .96 | 0.81 (0.53 -1.24) | .33 |
| Disabling illness | 1.27 (0.87 -1.86) | .21 | 1.32 (1.02 -1.70) | .032 | 1.18 (0.86 -1.62) | .31 |

CWP (chronic widespread pain); CRP (chronic regional pain)

Model 1: adjusted for sex

Model 2: adjusted for sex, BMI, longstanding illness or health problems, smoking and physical activity

Model 3: adjusted for sex, own social class, education, BMI, longstanding illness or health problems, smoking, physical activity, parental divorce and symptoms of anxiety and depression

Table S2: Association between serious illness (vs no serious illness) and pain outcomes – complete case analysis, N=1731

|  |  |  |  |
| --- | --- | --- | --- |
|  | **CWP vs no pain** | **CRP vs no pain** | **Other pain vs no pain** |
| Model | RRR (95% CI) | P value | RRR (95% CI) | P value | RRR (95% CI) | P value |
| 1 | 1.85 (1.31 -2.59) | <.001 | 1.38 (1.08 -1.76) | .010 | 1.16 (0.84 -1.60) | 0.36 |
| 2 | 1.82 (1.29 -2.57) | .001 | 1.37 (1.07 -1.76) | .011 | 1.18 (0.86 -1.64) | 0.31 |
| 3 | 1.67 (1.18 -2.38) | .004 | 1.33 (1.04 -1.71) | .026 | 1.14 (0.83 -1.58) | 0.42 |
| 4 | 1.80 (1.27 -2.54) | .001 | 1.37 (1.07 -1.74) | .012 | 1.16 (0.84 -1.60) | 0.36 |
| 5 | 1.66 (1.16 -2.38) | .006 | 1.33 (1.03 -1.71) | .029 | 1.16 (0.84 -1.61) | 0.36 |

CWP (chronic widespread pain); CRP (chronic regional pain)

Model 1: adjusted for sex

Model 2: adjusted for sex and SEP (education at age 26, own occupational class)

Model 3: adjusted for sex, health status and health behaviours (BMI, longstanding illness or health problems, smoking and physical activity)

Model 4: adjusted for sex and psychosocial factors (parental divorce and symptoms of anxiety and depression (GHQ-28))

Model 5: adjusted for all covariates included in models 1 to 4