**Supplement to Table 2: Results of the association between energy drink use and FOSQ-10 scores (linear regression) – full multivariate model results**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Males** | | |  | **Females** | | |
|  | **Effect estimate** | **95% CI** | **p-value** |  | **Effect estimate** | **95% CI** | **p-value** | |
| Energy drink use |  |  |  |  |  |  |  | |
| Frequent | -0.31 | -0.79 – 0.16 | 0.19 |  | **0.93** | **0.32 – 1.54** | **0.003** | |
| Occasional | -0.31 | -0.82 – 0.20 | 0.23 |  | 0.13 | -0.36 – 0.61 | 0.61 | |
| None/rare | Ref |  |  |  | Ref |  |  | |
| Income at birth |  |  |  |  |  |  |  | |
| High | -0.17 | -0.58 – 0.25 | 0.43 |  | 0.26 | -0.14 – 0.67 | 0.20 | |
| Low | Ref |  |  |  | Ref |  |  | |
| Mother’s education |  |  |  |  |  |  |  | |
| Post-school | -0.065 | -0.46 – 0.33 | 0.75 |  | 0.29 | -0.08 – 0.66 | 0.12 | |
| School | Ref |  |  |  | Ref |  |  | |
| Education completed |  |  |  |  |  |  |  | |
| Post-school | -0.18 | -0.55 – 0.20 | 0.36 |  | -0.20 | -0.56 – 0.15 | 0.26 | |
| School | Ref |  |  |  | Ref |  |  | |
| Smoker |  |  |  |  |  |  |  | |
| Yes | -0.19 | -0.79 – 0.40 | 0.52 |  | 0.42 | -0.18 – 1.02 | 0.17 | |
| No | Ref |  |  |  | Ref |  |  | |
| Marijuana Use |  |  |  |  |  |  |  | |
| Frequent | 0.045 | -0.68 – 0.77 | 0.90 |  | 0.42 | -0.40 – 1.23 | 0.32 | |
| Occasional | 0.47 | -0.029 – 0.98 | 0.065 |  | 0.14 | -0.33 – 0.61 | 0.55 | |
| Never/Once | Ref |  |  |  | Ref |  |  | |
| Stimulant Use |  |  |  |  |  |  |  | |
| Frequent | -0.56 | -2.00 – 0.88 | 0.44 |  | -0.01 | -1.19 – 1.17 | 0.99 | |
| Occasional | -0.029 | -0.58 – 0.52 | 0.92 |  | -0.14 | -0.71 – 0.43 | 0.64 | |
| Never/Once |  |  |  |  | Ref |  |  | |
| Depressant Use |  |  |  |  |  |  |  | |
| Frequent | No Data |  |  |  | -1.38 | -4.53 – 1.78 | 0.39 | |
| Occasional | 0.032 | -1.12 – 1.18 | 0.96 |  | -0.32 | -1.44 – 0.81 | 0.58 | |
| Never/Once | Ref |  |  |  | Ref |  |  | |
| Other Drug Use |  |  |  |  |  |  |  | |
| Frequent | 2.26 | -1.78 – 6.30 | 0.27 |  | -2.20 | -5.36 – 0.97 | 0.17 | |
| Occasional | 0.094 | -0.61 – 0.80 | 0.79 |  | -0.45 | -1.30 – 0.40 | 0.30 | |
| Never/Once | Ref |  |  |  | Ref |  |  | |
| Alcohol consumed (g/week) | 0.004 | -0.007 – 0.014 | 0.52 |  | **-0.016** | **-0.031 - -0.001** | **0.038** | |
| Physical Activity (Metmins/week) | -0.002 | -0.048 – 0.045 | 0.94 |  | -0.038 | -0.098 – 0.022 | 0.21 | |
| BMI (kg/m2) | -0.011 | -0.052 – 0.029 | 0.59 |  | **-0.044** | **-0.075 - -0.013** | **0.005** | |
| Other caffeine (g/day) | -0.44 | -1.54 – 0.66 | 0.43 |  | -0.16 | -1.51 – 1.19 | 0.82 | |
| DASS depression score | 0.029 | -0.010 – 0.068 | 0.15 |  | **0.071** | **0.040 – 0.10** | **<0.001** | |
| DASS anxiety score | **0.046** | **0.001 – 0.090** | **0.045** |  | 0.017 | -0.017 – 0.052 | 0.33 | |
| DASS stress score | -0.024 | -0.071 – 0.022 | 0.31 |  | -0.017 | -0.054 – 0.020 | 0.37 | |
| *Intakes; None/rare (≤once/month), Occasional (>once/month to <once/week), Frequent (≥once/week).*  *Fundamental Outcomes of Sleep Questionnaire (FOSQ-10), BMI (body mass index), Depression Anxiety Stress Scale (DASS)* | | | | | | | | |

**Supplement to Table 2: Regression results of the association between energy drink use and PSSQ – Insomnia Scores (logistic regression) – full multivariate model results**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Males** | | |  | **Females** | | |
|  | **Odds Ratio** | **95% CI** | **p-value** |  | **Odds Ratio** | **95% CI** | **p-value** |
| Energy drink use |  |  |  |  |  |  |  |
| Frequent | 0.21 | 0.02 – 1.87 | 0.16 |  | **5.10** | **1.81 – 14.35** | **0.002** |
| Occasional | 0.49 | 0.06 – 4.14 | 0.51 |  | 0.85 | 0.27 – 2.64 | 0.78 |
| None/rare | Ref |  |  |  | Ref |  |  |
| Income at birth |  |  |  |  |  |  |  |
| High | 0.40 | 0.08 – 2.18 | 0.29 |  | 1.50 | 0.61 – 3.69 | 0.38 |
| Low | Ref |  |  |  | Ref |  |  |
| Mother’s education |  |  |  |  |  |  |  |
| Post-school | 3.56 | 0.64 – 19.73 | 0.15 |  | 1.05 | 0.45 – 2.46 | 0.91 |
| School | Ref |  |  |  | Ref |  |  |
| Education completed |  |  |  |  |  |  |  |
| Post-school | **0.17** | **0.03 – 1.00** | **0.05** |  | 0.59 | 0.27 – 1.30 | 0.19 |
| School | Ref |  |  |  | Ref |  |  |
| Smoker |  |  |  |  |  |  |  |
| Yes | 3.49 | 0.49 – 25.04 | 0.21 |  | 1.88 | 0.63 – 5.65 | 0.26 |
| No | Ref |  |  |  | Ref |  |  |
| Marijuana Use |  |  |  |  |  |  |  |
| Frequent | 4.66 | 0.39 – 56.00 | 0.23 |  | 1.03 | 0.22 – 4.80 | 0.97 |
| Occasional | 0.47 | 0.04 – 5.27 | 0.54 |  | 1.63 | 0.62 – 4.33 | 0.33 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Stimulant Use |  |  |  |  |  |  |  |
| Frequent | 1.43 | 0.02 – 95.79 | 0.87 |  | 0.18 | 0.02 – 2.19 | 0.18 |
| Occasional | 1.88 | 0.26 – 13.73 | 0.53 |  | 0.27 | 0.07 – 1.02 | 0.054 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Depressant Use |  |  |  |  |  |  |  |
| Frequent | No Data |  |  |  | No Data |  |  |
| Occasional | 4.48 | 0.18 – 112.5 | 0.36 |  | 4.26 | 0.70 – 25.89 | 0.12 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Other Drug Use |  |  |  |  |  |  |  |
| Frequent | No Data |  |  |  | No Data |  |  |
| Occasional | 0.71 | 0.08 – 6.08 | 0.75 |  | 2.26 | 0.46 – 11.16 | 0.32 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Alcohol consumed (g/week) | 1.00 | 0.96 – 1.04 | 0.86 |  | 0.98 | 0.95 – 1.01 | 0.25 |
| Physical Activity (Metmins/week) | 1.17 | 0.97 – 1.41 | 0.10 |  | 1.05 | 0.92 – 1.21 | 0.46 |
| BMI (kg/m2) | 1.09 | 0.95 – 1.26 | 0.23 |  | 0.98 | 0.91 – 1.05 | 0.56 |
| Other caffeine (g/day) | 4.00 | 0.14 – 117.9 | 0.42 |  | 1.02 | 0.07 – 15.00 | 0.99 |
| DASS depression score | 1.09 | 0.97 – 1.22 | 0.17 |  | **1.09** | **1.03 – 1.15** | **0.004** |
| DASS anxiety score | 1.06 | 0.94 – 1.21 | 0.34 |  | 1.06 | 1.00 – 1.13 | 0.072 |
| DASS stress score | 0.99 | 0.87 – 1.13 | 0.91 |  | 0.94 | 0.87 – 1.01 | 0.078 |
| *Intakes; None/rare (≤once/month), Occasional (>once/month to <once/week), Frequent (≥once/week).*  *Pittsburgh Sleep Symptoms Questionnaire–Insomnia (PSSQ – Insomnia), BMI (body mass index), Depression Anxiety Stress Scale (DASS)* | | | | | | | |

**Supplement to Table 3 Regression results of the association between energy drink use and ESS Total Scores (linear regression) - full multivariate model results**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Males** | | |  | **Females** | | |
|  | **Effect estimate** | **95% CI** | **p-value** |  | **Effect estimate** | **95% CI** | **p-value** |
| Energy drink use |  |  |  |  |  |  |  |
| Frequent | 0.05 | -0.79 – 0.90 | 0.90 |  | 0.95 | -0.14 – 2.03 | 0.086 |
| Occasional | 0.36 | -0.55 – 1.26 | 0.44 |  | -0.28 | -1.14 – 0.59 | 0.53 |
| None/rare | Ref |  |  |  | Ref |  |  |
| Income at birth |  |  |  |  |  |  |  |
| High | -0.41 | -1.15 – 0.34 | 0.28 |  | 0.12 | -0.60 – 0.83 | 0.75 |
| Low | Ref |  |  |  | Ref |  |  |
| Mother’s education |  |  |  |  |  |  |  |
| Post-school | -0.16 | -0.87 – 0.55 | 0.67 |  | 0.56 | -0.09 – 1.22 | 0.092 |
| School | Ref |  |  |  | Ref |  |  |
| Education completed |  |  |  |  |  |  |  |
| Post-school | 0.23 | -0.44 – 0.90 | 0.50 |  | -0.42 | -1.05 – 0.22 | 0.20 |
| School | Ref |  |  |  | Ref |  |  |
| Smoker |  |  |  |  |  |  |  |
| Yes | 0.31 | -0.75 – 1.38 | 0.56 |  | 0.86 | -0.22 – 1.93 | 0.12 |
| No | Ref |  |  |  | Ref |  |  |
| Marijuana Use |  |  |  |  |  |  |  |
| Frequent | -0.86 | -2.15 – 0.43 | 0.19 |  | 0.09 | -1.36 – 1.53 | 0.91 |
| Occasional | 0.34 | -0.56 – 1.24 | 0.46 |  | -0.24 | -1.07 – 0.60 | 0.58 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Stimulant Use |  |  |  |  |  |  |  |
| Frequent | 0.21 | -2.38 – 2.80 | 0.87 |  | -1.73 | -3.81 – 0.36 | 0.10 |
| Occasional | 0.26 | -0.72 – 1.25 | 0.60 |  | 0.54 | -1.55 – 0.47 | 0.30 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Depressant Use |  |  |  |  |  |  |  |
| Frequent | No Data |  |  |  | 1.49 | -4.10 – 7.08 | 0.60 |
| Occasional | 1.34 | -0.72 – 3.41 | 0.20 |  | 0.53 | -1.46 – 2.52 | 0.60 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Other Drug Use |  |  |  |  |  |  |  |
| Frequent | 3.55 | -3.69 – 10.79 | 0.34 |  | -1.21 | -6.82 – 4.39 | 0.67 |
| Occasional | -0.45 | -1.72 – 0.81 | 0.48 |  | -0.44 | -1.95 – 1.07 | 0.57 |
| Never/Once | Ref |  |  |  | Ref |  |  |
| Alcohol consumed (g/week) | 0.004 | -0.015 – 0.023 | 0.67 |  | -0.001 | -0.027 – 0.026 | 0.97 |
| Physical Activity (Metmins/week) | 0.073 | -0.010 – 0.157 | 0.086 |  | -0.012 | -0.118 – 0.094 | 0.82 |
| BMI (kg/m2) | -0.021 | -0.093 – 0.052 | 0.58 |  | -0.027 | -0.081 – 0.028 | 0.34 |
| Other caffeine (g/day) | -0.23 | -2.20 – 1.74 | 0.82 |  | 1.96 | -0.44 – 4.36 | 0.11 |
| DASS depression score | 0.037 | -0.033 – 0.107 | 0.30 |  | **0.057** | **0.004 – 0.111** | **0.036** |
| DASS anxiety score | -0.002 | -0.082 – 0.078 | 0.95 |  | 0.004 | -0.057 – 0.066 | 0.89 |
| DASS stress score | 0.012 | -0.072 – 0.095 | 0.78 |  | 0.003 | -0.063 – 0.068 | 0.94 |
| *Intakes; None/rare (≤once/month), Occasional (>once/month to <once/week), Frequent (≥once/week).*  *Epworth Sleepiness Scale (ESS), BMI (body mass index), Depression Anxiety Stress Scale (DASS)* | | | | | | | |

**Supplement to Table 3 Regression results of the association between energy drink use and ESS Binary (logistic regression - full multivariate model results**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Males** | | |  | | **Females** | | |
|  | **Odds Ratio** | **95% CI** | **p-value** |  | **Odds Ratio** | | **95% CI** | **p-value** |
| Energy drink use |  |  |  |  |  | |  |  |
| Frequent | 0.96 | 0.44 – 2.11 | 0.92 |  | 2.15 | | 0.91 – 5.10 | 0.081 |
| Occasional | 1.31 | 0.58 – 2.96 | 0.51 |  | 0.47 | | 0.18 – 1.23 | 0.12 |
| None/rare | Ref |  |  |  | Ref | |  |  |
| Income at birth |  |  |  |  |  | |  |  |
| High | 0.64 | 0.33 – 1.26 | 0.20 |  | 0.96 | | 0.50 – 1.85 | 0.90 |
| Low | Ref |  |  |  | Ref | |  |  |
| Mother’s education |  |  |  |  |  | |  |  |
| Post-school | 0.88 | 0.46 – 1.70 | 0.71 |  | 1.04 | | 0.56 – 1.94 | 0.91 |
| School | Ref |  |  |  | Ref | |  |  |
| Education completed |  |  |  |  |  | |  |  |
| Post-school | 0.88 | 0.47 – 1.63 | 0.67 |  | 1.08 | | 0.60 – 1.95 | 0.81 |
| School | Ref |  |  |  | Ref | |  |  |
| Smoker |  |  |  |  |  | |  |  |
| Yes | 1.46 | 0.54 – 3.96 | 0.46 |  | 1.75 | | 0.69 – 4.41 | 0.24 |
| No | Ref |  |  |  | Ref | |  |  |
| Marijuana Use |  |  |  |  |  | |  |  |
| Frequent | 0.50 | 0.13 – 1.88 | 0.30 |  | 1.01 | | 0.29 – 3.53 | 0.98 |
| Occasional | 1.20 | 0.53 – 2.73 | 0.66 |  | 0.87 | | 0.39 – 1.92 | 0.73 |
| Never/Once | Ref |  |  |  | Ref | |  |  |
| Stimulant Use |  |  |  |  |  | |  |  |
| Frequent | 1.34 | 0.13 – 13.97 | 0.80 |  | 0.25 | | 0.04 – 1.73 | 0.16 |
| Occasional | 1.54 | 0.64 – 3.73 | 0.34 |  | 0.38 | | 0.13 – 1.09 | 0.073 |
| Never/Once | Ref |  |  |  | Ref | |  |  |
| Depressant Use |  |  |  |  |  | |  |  |
| Frequent | No Data |  |  |  | No Data | |  |  |
| Occasional | 6.93 | 1.30 – 36.88 | 0.023 |  | 2.87 | | 0.68 – 12.20 | 0.14 |
| Never/Once | Ref |  |  |  | Ref | |  |  |
| Other Drug Use |  |  |  |  |  | |  |  |
| Frequent | No Data |  |  |  | No Data | |  |  |
| Occasional | 0.40 | 0.11 – 1.55 | 0.19 |  | 1.43 | | 0.37 – 5.50 | 0.61 |
| Never/Once | Ref |  |  |  | Ref | |  |  |
| Alcohol consumed (g/week) | 0.99 | 0.97 – 1.01 | 0.24 |  | 0.997 | | 0.97 – 1.02 | 0.82 |
| Physical Activity (Metmins/week) | 1.07 | 1.00 – 1.15 | 0.052 |  | 1.03 | | 0.94 – 1.14 | 0.54 |
| BMI (kg/m2) | 0.98 | 0.92 – 1.05 | 0.60 |  | 0.97 | | 0.92 – 1.02 | 0.22 |
| Other caffeine (g/day) | 0.65 | 0.09 – 4.91 | 0.68 |  | 0.61 | | 0.07 – 5.68 | 0.66 |
| DASS depression score | 1.02 | 0.96 – 1.08 | 0.62 |  | 1.02 | | 0.98 – 1.07 | 0.39 |
| DASS anxiety score | 1.03 | 0.96 – 1.11 | 0.45 |  | 1.05 | | 1.00 – 1.10 | 0.066 |
| DASS stress score | 0.96 | 0.89 – 1.04 | 0.33 |  | 0.98 | | 0.93 – 1.04 | 0.48 |
| *Intakes; None/rare (≤once/month), Occasional (>once/month to <once/week), Frequent (≥once/week).*  *Epworth Sleepiness Scale (ESS), BMI (body mass index), Depression Anxiety Stress Scale (DASS)* | | | | | | | | |