**Supplementary Table 6**. RR and 95%CI for the association between baseline vitamin D status and the number of binary depression symptoms across three waves (n=1549)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Overall sample adjusted for sex | | Males | | Females | |
| Unadjusted | Adjusted | Unadjusted | Adjusted | Unadjusted | Adjusted |
| 25(OH)D level at wave 1 |  |  |  |  |  |  |
| None | Reference | Reference | Reference | Reference | Reference | Reference |
| One type of depression symptoms | 0.98(0.96, 1.00) | 0.98(0.96, 1.00) | 0.98(0.96, 1.01) | 0.98(0.95, 1.01) | 0.98(0.94, 1.02) | 0.97(0.94, 1.02) |
| Two types of depression symptoms | 0.98(0.95, 1.00) | 0.98(0.95, 1.01) | **0.97(0.94, 1.00)** | **0.97(0.93, 0.99)** | 0.99(0.95, 1.03) | 0.99(0.95, 1.03) |
| Three types of depression symptoms | 0.98(0.96, 1.01) | 0.98(0.96, 1.01) | 0.98(0.95, 1.01) | 0.98(0.94, 1.01) | 0.99(0.95, 1.03) | 0.99(0.95, 1.04) |
| VDD at wave 1 |  |  |  |  |  |  |
| None | Reference | Reference | Reference | Reference | Reference | Reference |
| One type of depression symptoms | 1.37(1.04, 1.82) | 1.35(0.97, 1.79) | 1.44(1.00, 2.08) | 1.41(0.96, 2.07) | 1.26(0.81, 1.96) | 1.34(0.84, 2.12) |
| Two types of depression symptoms | 1.37(1.01, 1.86) | 1.32(0.97, 1.81) | **1.61(1.07, 2.42)** | **1.59(1.04, 2.44)** | 1.11(0.69, 1.77) | 1.06(0.65, 1.71) |
| Three types of depression symptoms | 1.09(0.79, 1.51) | 1.07(0.77, 1.49) | 1.17(0.75, 1.85) | 1.22(0.76, 1.97) | 0.98(0.62, 1.57) | 1.05(0.99, 1.10) |

Adjusted model included covariates: age at wave 1, only child status, family structure, self-perceived family economic status, BMI at wave 1, physical activity at wave 1 and self-perceived puberty timing at wave 1.