**Supplementary Table 9.** OR and 95%CI for theassociation between conditional changes of serum 25(OH)D concentrations and the trajectory of depression symptoms across three waves (n=1512)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Overall sample adjusted for sex | | Males | | Females | |
| Unadjusted | Adjusted | Unadjusted | Adjusted | Unadjusted | Adjusted |
| None | Reference | Reference | Reference | Reference | Reference | Reference |
| Low | 1.03(0.98, 1.07) | 1.01(0.98, 1.04) | 0.99(0.94, 1.05) | 1.01(0.98, 1.05) | 1.07(1.00, 1.15) | 1.00(0.95, 1.05) |
| Increasing | 1.03(0.98, 1.09) | 1.01(0.98, 1.03) | 0.99(0.92, 1.05) | 0.99(0.96, 1.04) | 1.10(1.02, 1.19) | 1.03(0.98, 1.08) |
| Decreasing | 1.03(0.98, 1.08) | 0.98(0.93, 1.02) | 1.00(0.94, 1.06) | 1.00(0.95, 1.06) | 1.08(1.00, 1.17) | 0.93(0.87, 1.01) |

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.