**Supplementary Table 1.** Variation matrix of time spent in sleep, sedentary behavior (SB), light physical activity (LPA), and moderate-to-vigorous physical activity (MVPA) by sleep duration categories.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Full sample (N = 3443)** | | | | |
|  | **Sleep** | **SB** | **LPA** | **MVPA** |
| **Sleep** | 0 | 0.063 | 0.082 | 0.365 |
| **SB** | 0.063 | 0 | 0.180 | 0.453 |
| **LPA** | 0.082 | 0.180 | 0 | 0.359 |
| **MVPA** | 0.365 | 0.453 | 0.359 | 0 |
| **Sleep duration ≤7.5 hours/day (N = 1939)** | | | | |
|  | **Sleep** | **SB** | **LPA** | **MVPA** |
| **Sleep** | 0 | 0.056 | 0.071 | 0.352 |
| **SB** | 0.056 | 0 | 0.184 | 0.463 |
| **LPA** | 0.071 | 0.184 | 0 | 0.368 |
| **MVPA** | 0.352 | 0.463 | 0.368 | 0 |
| **Sleep duration >7.5 hours/day (N = 1504)** | | | | |
|  | **Sleep** | **SB** | **LPA** | **MVPA** |
| **Sleep** | 0 | 0.044 | 0.066 | 0.349 |
| **SB** | 0.044 | 0 | 0.175 | 0.440 |
| **LPA** | 0.066 | 0.175 | 0 | 0.348 |
| **MVPA** | 0.349 | 0.440 | 0.348 | 0 |