| **Table S5. Handgrip strength and other factors associated with depression in the Korean eldelry, using 'NOMCAR' option of SAS** |
| --- |
| **Variables** | **Depression (PHQ-9 ≥5)** |
| **Male** |  | **Female** |
| **OR** | **95% CI** |  | **OR** | **95% CI** |
| **Handgrip strength** | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| High | 1.00  | 　 | 　 | 　 | 1.00  | 　 | 　 |
| Medium | 0.97  | 0.62  | 1.53  | 　 | 1.50  | 1.13  | 2.00  |
| Low | 0.94  | 0.56  | 1.57  | 　 | 1.93  | 1.33  | 2.81  |
| **Handgrip strength asymmetry** | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Symmetric | 1.00  | 　 | 　 | 　 | 1.00  | 　 | 　 |
| Moderate asymmetry | 1.28  | 0.87  | 1.88  | 　 | 1.15  | 0.87  | 1.53  |
| Prominent asymmetry | 1.20  | 0.71  | 2.05  | 　 | 1.47  | 1.03  | 2.10  |
| **Handedness** | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Right | 1.00  | 　 | 　 | 　 | 1.00  | 　 | 　 |
| Left | 1.03  | 0.49  | 2.16  | 　 | 1.08  | 0.60  | 1.94  |
| Both | 0.65  | 0.28  | 1.52  | 　 | 0.62  | 0.35  | 1.10  |
|  **Age**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
| 60 ~ 64 | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
| 65 ~ 69 | 0.59  | 0.33  | 1.04  |  | 1.18  | 0.80  | 1.73  |
| 70 ~ 74 | 0.75  | 0.42  | 1.33  |  | 0.66  | 0.44  | 1.00  |
| 75 ~ | 1.08  | 0.59  | 1.96  |  | 0.79  | 0.52  | 1.21  |
|  **Region**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
|  Metropolitans  | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
|  Rurals  | 0.86  | 0.60  | 1.23  |  | 0.83  | 0.64  | 1.07  |
|  **Educational level**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
|  Under highschool  | 1.91  | 1.09  | 3.35  |  | 1.49  | 0.90  | 2.46  |
|  College  | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
|  **Job**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
|  White  | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
|  Pink  | 0.70  | 0.28  | 1.75  |  | 2.63  | 0.75  | 9.25  |
|  Blue  | 0.67  | 0.34  | 1.32  |  | 1.73  | 0.52  | 5.74  |
|  None  | 0.83  | 0.42  | 1.63  |  | 3.06  | 0.94  | 10.00  |
|  **Household income (quartiles)**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
|  High  | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
|  Middle high  | 1.25  | 0.67  | 2.31  |  | 0.94  | 0.60  | 1.48  |
|  Middle low  | 1.61  | 0.88  | 2.96  |  | 1.26  | 0.83  | 1.92  |
|  Low  | 2.11  | 1.08  | 4.13  |  | 1.80  | 1.15  | 2.80  |
| **Marital status** | 　 | 　 | 　 |  | 　 | 　 | 　 |
| With spouse | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
| Without souse | 1.79  | 1.13  | 2.84  |  | 1.34  | 1.01  | 1.78  |
|  **Eating habit**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
|  Regular  | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
|  Irregular  | 1.27  | 0.80  | 2.01  |  | 1.58  | 1.19  | 2.10  |
| **Lifetime smoking experience** | 　 | 　 | 　 |  | 　 | 　 | 　 |
| Yes | 1.24  | 0.77  | 1.99  |  | 1.26  | 0.76  | 2.10  |
| No | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
|  **Drink**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
|  2 ~ 4 times / week  | 0.86  | 0.57  | 1.30  |  | 1.25  | 0.75  | 2.08  |
|  2 ~ 4 times / month  | 1.07  | 0.67  | 1.71  |  | 0.95  | 0.58  | 1.55  |
| Never or occasionally | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
|  **BMI†**  | 　 | 　 | 　 |  | 　 | 　 | 　 |
|  Obese(≥25)  | 0.75  | 0.51  | 1.09  |  | 0.80  | 0.62  | 1.04  |
|  Normal or under-weight(<25)  | 1.00  | 　 | 　 |  | 1.00  | 　 | 　 |
| **Physical activity** | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Sufficient | 1.00  | 　 | 　 | 　 | 1.00  | 　 | 　 |
| Insufficient | 1.06  | 0.75  | 1.52  | 　 | 1.23  | 0.92  | 1.65  |
|  **Stress**  | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
|  Lot  | 7.80  | 5.22  | 11.66  | 　 | 4.59  | 3.53  | 5.97  |
|  Little  | 1.00  | 　 | 　 | 　 | 1.00  | 　 | 　 |
| **Chronic diesease** | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Yes | 1.36  | 0.95  | 1.95  | 　 | 1.12  | 0.86  | 1.47  |
| No | 1.00  | 　 | 　 | 　 | 1.00  | 　 | 　 |
| PHQ-9, Patient Health Questionnaire 9; BMI, Body Mass Index | 　 | 　 | 　 | 　 |
| †Obesity status defined by BMI based on 2014 Clinical Practice Guidelines for Overweight and Obesity in Korea |
| \*Chronic disaseses includes hypertension, diabetes mellitus and dyslipidemia  | 　 | 　 | 　 |