**Supplementary material 1:**

**Figure: Change of HADS score: Before surgery to 6-month post-surgery**





**Supplementary material 2: Parameter estimates, interaction for anxiety and depression**

**Table A: Linear mixed model: Parameter estimates†**

|  |  |
| --- | --- |
| **Anxiety** | **Depression** |
| **Factors** | **Mean(SE)** | **95% CI** | **P value** | **Factors** | **Mean(SE)** | **95% CI** | **P value** |
| **Main effects** |
| **1. Visit number**  |  |  | <0.001 | **1. Visit number**  |  |  | <0.001 |
| Before surgery | 8.43(0.80) | 6.85-10.02 |  | Before surgery | 4.88(0.60) | 3.69-6.07 |  |
| Week-1 | 7.17(0.80) | 5.58-8.76 |  | Week-1 | 5.34(0.60) | 4.15-6.53 |  |
| Week-4 | 5.94(0.81) | 4.35-7.53 |  | Week-4 | 4.30(0.60) | 3.00-5.49 |  |
| Month-3 | 5.67(0.81) | 4.08-7.26 |  | Month-3 | 3.96(0.60) | 2.76-5.15 |  |
| Month-6 | 5.66(0.81) | 4.07-7.26 |  | Month-6 | 4.08(0.60) | 2.89-5.27 |  |
| **2. Ethnicity** |  |  | <0.001 |  |  |
| European | 5.80(0.78) | 4.27-7.35 |  |  |  |  |  |
| Other | 7.34(0.88) | 5.60-9.08 |  |  |  |  |  |

OR- Odds Ratio, CI- Confidence Interval, SE- Standard Error.

†Income for anxiety and hypertension for depression was interacted with visit number and showed statistically significant association (p<0.05). The parameter of estimates and line graph is presented in the Supplementary material 2.

**Table A: Interaction for anxiety and depression**

|  |  |  |  |
| --- | --- | --- | --- |
| **Factors** | **Mean (Standard Error)** | **95% Confidence Interval** | **P value** |
| **Anxiety: Income\*Visit number** |  | <0.001 |
| ≥AUS$40,001\*Before surgery | 8.71(0.61) | 7.51-9.90 |  |
| Not stated \* Before surgery  | 8.55(0.64) | 7.28-9.82 |  |
| <AUS$40,000\*Before surgery | 6.91(0.38) | 6.17-7.65 |  |
| ≥AUS$40,001\*Week-1 | 5.60(0.61) | 4.40-6.79 |  |
| Not stated \*Week-1 | 6.64(0.65) | 5.36-7.92 |  |
| <AUS$40,000\*Week-1 | 5.14(0.38) | 4.39-5.89 |  |
| ≥AUS$40,001\*Week-4 | 5.13(0.61) | 3.93-6.34 |  |
| Not stated \*Week-4 | 4.75(0.65) | 3.47-6.04 |  |
| <AUS$40,000\*Week-4 | 4.43(0.38) | 3.68-5.18 |  |
| ≥AUS$40,001\*Month-3 | 4.95(0.62) | 3.73-6.17 |  |
| Not stated \*Month-3 | 4.83(0.67) | 3.51-6.16 |  |
| <AUS$40,000\*Month-3 | 3.84(0.38) | 3.08-4.60 |  |
| ≥AUS$40,001\*Month-6 | 4.49(0.62) | 3.27-5.71 |  |
| Not stated\*Month-6 | 5.41(0.68) | 4.06-6.75 |  |
| <AUS$40,000\*Month-6 | 3.78(0.39) | 3.01-4.55 |  |
| **Depression: Hypertension\*Visit number** |  | 0.03 |
| No\*Before surgery | 4.83(0.47) | 3.89-5.76 |  |
| Yes\*Before surgery | 4.09(0.45) | 3.20-4.99 |  |
| No\*Week-1 | 4.94(0.48) | 4.00-5.89 |  |
| Yes\*Week-1 | 3.76(0.46) | 2.85-4.67 |  |
| No\*Week-4 | 3.64(0.48) | 2.70-4.58 |  |
| Yes\*Week-4 | 3.07(0.56) | 2.17-3.97 |  |
| No\*Month-3 | 2.94(0.48) | 1.99-3.90 |  |
| Yes\*Month-3 | 2.48(0.46) | 1.57-3.39 |  |
| No\*Month-6 | 3.23(0.49) | 2.25-4.21 |  |
| Yes\*Month-6 | 2.90(0.47) | 1.97-3.83 |  |



**Figure A: Line graph between the interaction of anxiety and income at five different time point**



**Figure B: Line graph between the interaction of depression and hypertension (HTN) at five different time point**