Appendix 4. Association between variables and MAR by cutoff value at 0.5

|  |  |
| --- | --- |
| **Variables** | **MAR**  |
| **Male** |  | **Female** |  |  |
| **OR** | **95% CI** | **OR** | **95% CI** |
| **Eating Behaviour** |  |  |  |  |  |  |  |  |
| Alone | 0.52  | 0.27  | - | 1.01  | 0.84  | 0.54  | - | 1.31  |
| Some Together | 1.07  | 0.66  | - | 1.74  | 0.98  | 0.73  | - | 1.33  |
| Together | 1.00  |  | - |  | 1.00  |  | - |  |
| **Living Arrangement** |  |  |  |  |  |  |  |  |
| Living Alone | 1.40  | 0.65  | - | 3.02  | 0.79  | 0.48  | - | 1.31  |
| Living with Others | 1.00  |  | - |  | 1.00  |  | - |  |
| **Age Group** |  |  |  |  |  |  |  |  |
| Age<30 | 0.68  | 0.25  | - | 1.83  | 0.56  | 0.31  | - | 1.04  |
| Age<40 | 0.37  | 0.14  | - | 0.95  | 0.46  | 0.24  | - | 0.87  |
| Age<50 | 0.31  | 0.11  | - | 0.85  | 0.50  | 0.25  | - | 0.99  |
| Age<60 | 0.25  | 0.08  | - | 0.74  | 0.51  | 0.24  | - | 1.09  |
| Age<70 | 1.00  |  | - |  | 1.00  |  | - |  |
| **Residential Area** |  |  |  |  |  |  |  |  |
| Urban | 0.93  | 0.54  | - | 1.60  | 1.01  | 0.69  | - | 1.47  |
| Rural | 1.00  |  | - |  | 1.00  |  | - |  |
| **BMI** |  |  |  |  |  |  |  |  |
| Underweight | 0.73  | 0.23  | - | 2.27  | 0.77  | 0.44  | - | 1.36  |
| Overweight | 0.91  | 0.58  | - | 1.42  | 1.00  | 0.73  | - | 1.37  |
| Normal | 1.00  |  | - |  | 1.00  |  | - |  |
| **Weight Changes** |  |  |  |  |  |  |  |  |
| Same | 1.00  |  | - |  | 1.00  |  | - |  |
| Decreased | 0.54  | 0.32  | - | 0.92  | 0.83  | 0.56  | - | 1.24  |
| Increased | 0.96  | 0.52  | - | 1.74  | 0.92  | 0.67  | - | 1.27  |
| **Marital Status** |  |  |  |  |  |  |  |  |
| Married | 2.03  | 0.91  | - | 4.54  | 2.55  | 1.48  | - | 4.37  |
| Separated | 0.92  | 0.38  | - | 2.26  | 1.74  | 0.94  | - | 3.23  |
| Single | 1.00  |  | - |  | 1.00  |  | - |  |
| **Education Level** |  |  |  |  |  |  |  |  |
| Primary | 0.27  | 0.12  | - | 0.60  | 0.39  | 0.23  | - | 0.68  |
| Secondary | 0.89  | 0.34  | - | 2.33  | 0.44  | 0.26  | - | 0.75  |
| Upper Secondary | 0.47  | 0.25  | - | 0.88  | 0.73  | 0.49  | - | 1.08  |
| Tertiary  | 1.00  |  | - |  | 1.00  |  | - |  |
| **Income Level** |  |  |  |  |  |  |  |  |
| Lowest | 0.35  | 0.16  | - | 0.81  | 0.25  | 0.15  | - | 0.43  |
| Lower-Middle | 0.47  | 0.21  | - | 1.06  | 0.39  | 0.23  | - | 0.66  |
| Upper-Middle | 0.49  | 0.21  | - | 1.16  | 0.47  | 0.27  | - | 0.82  |
| Highest | 1.00  |  | - |  | 1.00  |  | - |  |
| **Occupation** |  |  |  |  |  |  |  |  |
| White | 1.75  | 0.81  | - | 3.79  | 1.30  | 0.84  | - | 2.00  |
| Pink | 3.17  | 1.17  | - | 8.56  | 1.36  | 0.92  | - | 2.01  |
| Blue | 1.71  | 0.98  | - | 2.97  | 1.71  | 1.13  | - | 2.58  |
| Others | 1.00  |  | - |  | 1.00  |  | - |  |
| **Alcohol Consumption** |  |  |  |  |  |  |  |  |
| Yes | 1.09  | 0.37  | - | 3.21  | 1.17  | 0.78  | - | 1.74  |
| No | 1.00  |  | - |  | 1.00  |  | - |  |
| **Cigarettes**  |  |  |  |  |  |  |  |  |
| Smoker | 0.53  | 0.28  | - | 1.01  | 1.00  | 0.58  | - | 1.73  |
| Ex-Smoker | 0.96  | 0.47  | - | 1.95  | 0.50  | 0.32  | - | 0.79  |
| Non-Smoker | 1.00  |  | - |  | 1.00  |  | - |  |
| **Stress Level** |  |  |  |  |  |  |  |  |
| High | 1.03  | 0.52  | - | 2.01  | 0.76  | 0.48  | - | 1.22  |
| Medium | 1.21  | 0.66  | - | 2.20  | 0.89  | 0.58  | - | 1.37  |
| Low | 1.00  |  | - |  | 1.00  |  | - |  |
| **Nutritional Education** |  |  |  |  |  |  |  |  |
| No | 1.29  | 0.42  | - | 3.95  | 0.49  | 0.18  | - | 1.35  |
| Yes | 1.00  |  | - |  | 1.00  |  | - |  |
| **Nutrition Supplement Intake (more than2 weeks/year)** |  |  |  |
| No | 0.39  | 0.22  | - | 0.68  | 0.65  | 0.49  | - | 0.86  |
| Yes | 1.00  |  | - |  | 1.00  |  | - |  |
| **Nutritional Fact Usage** |  |  |  |  |  |  |  |  |
| No | 0.49  | 0.22  | - | 1.09  | 0.61  | 0.44  | - | 0.86  |
| Yes | 1.00  | 　 | - | 　 | 1.00  | 　 | - | 　 |

Appendix 5. Results of adjusted and unadjusted model related to socioeconomic factors

|  |  |
| --- | --- |
| **Variables** | **MAR**  |
|  | **Male** |  |  | **Female** |  |
| **β** | **S.E** | ***p*-VALUE** | **β** | **S.E** | ***p*-VALUE** |
| **Model 1** | **Eating Behaviour** |
|  | Alone | -0.114  | 0.035  | 0.001  | -0.076  | 0.024  | 0.002  |
|  | Some-with others | -0.002  | 0.018  | 0.923  | -0.010  | 0.014  | 0.474  |
|  | With others | Ref. |  |  | Ref. |  |  |
| **Model 2** | **Eating Behaviour** |  |  |  |  |  |  |
|  | Alone | -0.117  | 0.035  | 0.001  | -0.068  | 0.024  | 0.006  |
|  | Some-with others | -0.003  | 0.018  | 0.887  | -0.007  | 0.014  | 0.593  |
|  | With others | Ref. |  |  | Ref. |  |  |
| **Model 3** | **Eating Behaviour** |  |  |  |  |  |  |
|  | Alone | -0.115  | 0.035  | 0.001  | -0.068  | 0.024  | 0.005  |
|  | Some-with others | -0.002  | 0.018  | 0.932  | -0.010  | 0.014  | 0.464  |
|  | With others | Ref. |  |  | Ref. |  |  |
| **Model 4** | **Eating Behaviour** |  |  |  |  |  |  |
|  | Alone | -0.123  | 0.035  | 0.000  | -0.075  | 0.025  | 0.002  |
|  | Some-with others | -0.003  | 0.018  | 0.883  | -0.007  | 0.014  | 0.617  |
|  | With others | Ref. |  |  | Ref. |  |  |
| **Model 5** | **Eating Behaviour** |  |  |  |  |  |  |
|  | Alone | -0.118  | 0.035  | 0.001  | -0.074  | 0.024  | 0.003  |
|  | Some-with others | -0.002  | 0.018  | 0.930  | -0.010  | 0.014  | 0.474  |
|  | With others | Ref. |  |  | Ref. |  |  |
| **Model 6** | **Eating Behaviour** |  |  |  |  |  |  |
|  | Alone | -0.125  | 0.035  | 0.000  | -0.067  | 0.024  | 0.006  |
|  | Some-with others | -0.004  | 0.018  | 0.844  | -0.009  | 0.014  | 0.531  |
|  | With others | Ref. |  |  | Ref. |  |  |
| **Model 7** | **Eating Behaviour** |  |  |  |  |  |  |
|  | Alone | -0.131  | 0.035  | 0.000  | -0.074  | 0.024  | 0.002  |
|  | Some-with others | -0.004  | 0.018  | 0.824  | -0.008  | 0.014  | 0.555  |
| 　 | With others | Ref. | 　 | 　 | Ref. | 　 | 　 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Model 1 | Fully adjusted except education level |
| Model 2 | Fully adjusted except income level |
| Model 3 | Fully adjusted except occupation |
| Model 4 | Fully adjusted except education level and income level |
| Model 5 | Fully adjusted except education level and occupation |
| Model 6 | Fully adjusted except income level and occupation |
| Model 7 | Fully adjusted except education level, income level, and occupation |

Appendix 6. Interaction between variables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Variable** | **Estimate** | **S.D** | **P-value** |
| Male | edu\*EAT | 1.080 | 0.120 | 0.044 |
| Female | edu\*EAT | 4.094 | 0.455 | <.0001 |
|  |  |  |  |  |
| Male | incm\*EAT | 1.690 | 0.188 | 0.001 |
| Female | incm\*EAT | 2.710 | 0.301 | <.0001 |
|  |  |  |  |  |
| Male | occp\*EAT | 1.119 | 0.124 | 0.036 |
| Female | occp\*EAT | 1.708 | 0.190 | 0.008 |

EAT: eating behaviour, edu: education, incm: income, occp: occupation