**Supplemental tables**

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| **Supplemental table 1.** Relative risk of depression during pregnancy and the separate lifestyle behaviours diet quality, smoking, vitamin D status, and social support in participants of the GUSTO cohort |
|  |  | Crude |  | Model 1 |  | Model 2 |
|  | n | RR | 95 % CI | p | RR | 95 % CI | p | RR | 95 % CI | p |
| HEI-SGP\* | 1055 | 0.97 | 0.96, 0.98 | <0.001 |  | 0.98 | 0.96, 0.99 | 0.009 |  | 0.98 | 0.96, 1.00 | 0.027 |
| Smoking† | 1127 | 3.01 | 1.97, 4.60 | <0.001 |  | 2.10 | 1.26,3.46 | 0.005 |  | 1.98 | 1.17, 3.34 | 0.011 |
| Vitamin D† | 902 | 2.32 | 1.41, 3.82 | 0.001 |  | 1.58 | 0.98, 2.56 | 0.059 |  | 1.05 | 0.63, 1.76 | 0.854 |
| Social support† | 723 | 2.26 | 1.28, 4.00 | 0.005 |  | 2.12 | 1.21, 3.70 | 0.008 |  | 1.58 | 0.90, 2.78 | 0.112 |
| Model 1: Adjusted for age, ethnicity, education level, household income, employment status, parity, pre-pregnancy BMI, and physical activity |
| Model 2: Additionally adjusted for overall sleep quality scores |
| \*Additionally adjusted for energy intake and smoking |
| †Additionally adjusted for diet quality |

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| **Supplemental table 2.** Comparison of characteristics\* of included and excluded participants  |
|  | Included (n=535) | Excluded (n=712) | P for difference |
| Age (y) | 30.6 (5.2) | 30.6 (5.1) | 0.993 |
| Pre-pregnancy BMI (kg/m2; n=1089) | 22.8 (4.5) | 22.6 (4.3) | 0.577 |
| Energy intake (kcal; n=1170) | 1847 (601) | 1878 (575) | 0.373 |
| Ethnicity |  |  | 0.246 |
|  Chinese | 285, 53% | 413, 58% |  |
|  Malay | 145, 27% | 179, 25% |  |
|  Indian | 104, 19% | 120, 17% |  |
| Educational level (n=1187) |  |  | <0.001 |
| Primary/secondary | 127, 25% | 242, 36% |  |
|  Postsecondary | 57, 11% | 66, 10% |  |
|  University | 330, 64% | 365, 54% |  |
| Household income (n=1160) |  |  | <0.001 |
|  S$0 - S$1999 | 61, 12% | 122, 19% |  |
|  S$2000 – S$5999 | 131, 26% | 220, 33% |  |
|  > S$6000 | 309, 62% | 317, 48% |  |
| Probable antepartum anxiety (n=1035) | 125, 24% | 143, 28% | 0.129 |
| Probable antepartum depressed (n=1146) | 38, 7% | 48, 7.9 % | 0.629 |

\*Mean (SD) or n, %

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| **Supplemental table 3**. Linear associations\* between depressive symptoms and the number of lifestyle risk factors in 535 pregnant women – poor diet quality defined using 75th percentiles (HEI-SGP<63.2) |
|  |  | Antepartum depressive symptoms |  |  | Postpartum depressive symptoms† |
|  | n | β | 95% CI | p value |  | n | β | 95% CI | p value |
| 0-1 | 151 | 0.00 | Ref  | - |  | 105 | 0.00 | Ref | - |
| 2 | 164 | 0.71 | -0.19, 1.61 | 0.124 |  | 112 | 0.33 | -0.75, 1.41 | 0.551 |
| 3 | 139 | 2.32 | 1.36, 3.28 | <0.001 |  | 84 | 0.003 | -1.20, 1.20 | 0.996 |
| 4-6 | 81 | 4.37 | 3.21, 5.53 | <0.001 |  | 55 | 1.06 | -0.44, 2.55 | 0.166 |
| B trend‡ | 535 | 1.41 | 1.05, 1.76 | <0.001 |  | 356 | 0.23 | -0.23, 0.68 | 0.330 |
| \*Adjusted for age, ethnicity, educational level, household income, employment status and parity |
| †Additionally adjusted for depressive symptoms at 26-28 weeks’ gestation |
| ‡Determined by linear regression of depressive symptoms on a continuous lifestyle factor score. |

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| **Supplemental table 4**. Linear associations\* between depressive symptoms and the number of lifestyle risk factors in 516 pregnant women – excluding those who reported severe sleeping difficulties due to depressive symptoms |
|  |  | Antepartum depressive symptoms |  |  | Postpartum depressive symptoms† |
|  | n | β | 95% CI | p value |  | n | β | 95% CI | p value |
| 0-1 | 202 | 0.00 | Ref  | - |  | 138 | 0.00 | Ref | - |
| 2 | 142 | 1.08 | 0.23, 1.92 | 0.013 |  | 96 | 0.08 | -0.97, 1.13 | 0.880 |
| 3 | 114 | 2.10 | 1.16, 3.04 | <0.001 |  | 70 | -0.25 | -1.47, 0.96 | 0.680 |
| 4-6 | 58 | 4.19 | 2.96, 5.43 | <0.001 |  | 40 | 0.58 | -1.02, 2.19 | 0.478 |
| B trend‡ | 516 | 1.26 | 0.90, 1.62 | <0.001 |  | 344 | 0.07 | -0.40, 0.53 | 0.782 |
| \*Adjusted for age, ethnicity, educational level, household income, employment status and parity |
| †Additionally adjusted for depressive symptoms at 26-28 weeks’ gestation |
| ‡Determined by linear regression of depressive symptoms on a continuous lifestyle factor score. |