

Supplementary Table 2. Odds ratio (95% confidence intervals) of insomnia according to work-related variables in sex subgroup analysis

	Crude	Model 1 ^a	Model 2 ^b	Model 3 ^c
Male sex				
Monthly number of substitute work ^d				
<1	1 (ref.)	1 (ref.)	1 (ref.)	1 (ref.)
1–2	1.408 (1.184–1.674)	1.437 (1.207–1.710)	1.180 (0.971–1.434)	1.219 (0.997–1.490)
3–5	2.040 (1.575–2.643)	2.106 (1.623–2.732)	1.551 (1.153–2.087)	1.648 (1.215–2.235)
>5	2.706 (1.767–4.142)	2.830 (1.846–4.340)	1.678 (1.013–2.780)	1.795 (1.075–2.998)
Timing of schedule change notification ^e				
No change in schedule or several weeks before				
Several days before	1.478 (1.165–1.875)	1.499 (1.180–1.903)	1.412 (1.085–1.837)	1.407 (1.080–1.834)
One day before or on the day	2.173 (1.690–2.795)	2.119 (1.647–2.727)	1.631 (1.232–2.161)	1.615 (1.218–2.143)
Irregular notification	2.248 (1.768–2.859)	2.252 (1.769–2.866)	1.804 (1.379–2.359)	1.812 (1.383–2.373)
Work schedule stability ^f				
Good/Good				
Good/Bad	1.846 (1.555–2.191)	1.810 (1.524–2.149)	1.460 (1.205–1.771)	1.467 (1.209–1.780)
Bad/Good	2.248 (1.654–3.055)	2.295 (1.687–3.121)	1.697 (1.191–2.418)	1.784 (1.249–2.547)
Bad/Bad	2.535 (1.881–3.415)	2.536 (1.881–3.419)	1.755 (1.246–2.472)	1.808 (1.276–2.562)
Female sex				
Monthly number of substitute work ^d				
<1	1 (ref.)	1 (ref.)	1 (ref.)	1 (ref.)
1–2	1.902 (1.051–3.441)	2.106 (1.105–3.680)	2.102 (1.044–4.299)	2.278 (1.084–4.789)
3–5	4.119 (1.700–9.978)	4.188 (1.702–10.304)	5.006 (1.624–15.427)	5.213 (1.612–16.858)
>5	0.992 (0.123–8.021)	1.194 (0.146–9.780)	0.431 (0.042–4.445)	0.568 (0.048–6.678)
Timing of schedule change notification ^e				
No change in schedule or several weeks before				
Several days before	1.668 (0.682–4.082)	1.808 (0.729–4.482)	1.600 (0.544–4.702)	1.755 (0.554–5.559)
One day before or on the day	2.302 (0.899–5.895)	2.277 (0.883–5.870)	2.153 (0.699–6.627)	2.271 (0.676–7.634)
Irregular notification	2.688 (1.083–6.672)	2.651 (1.062–6.618)	2.975 (1.014–8.724)	3.359 (1.066–10.588)
Work schedule stability ^f				
Good/Good				
Good/Bad	1.771 (0.987–3.175)	1.631 (0.899–2.958)	1.904 (0.950–3.817)	2.041 (0.993–4.196)
Bad/Good	2.473 (0.772–7.925)	2.313 (0.711–7.528)	2.209 (0.529–9.222)	3.311 (0.722–15.193)
Bad/Bad	3.339 (1.220–9.142)	3.409 (1.238–9.385)	3.063 (0.837–11.209)	2.745 (0.721–10.442)

The adjusted odds ratio was calculated via binomial logistic regression analyses.

^aModel 1: adjusted for age group; ^bModel 2: adjusted for all variables in Model 1, body mass index, education, smoking status, alcohol consumption, caffeine intake, exercise, hypertension, dyslipidemia, cardiac disease, skin disease, and depressive symptom; ^cModel 3: adjusted for all variables in model 2, shift type, and job; ^dMonthly number of substitute work was classified with Good or Bad (Good: monthly number <3; Bad: monthly number \geq 3); ^eTiming of schedule change notification was classified with Good or Bad (Good: no change or notification several weeks before or several days before; Bad: notification one day before or on the day or irregular notification); ^fWork schedule stability was classified by monthly number of substitute work and timing of schedule change notification.