effects of overtime work hours and exercise habits on psychological distress.

Methods We used data from a health examination of 1082 workers in FY 2013. We obtained information on working hours in the most recent month from the personnel records of the surveyed company. Overtime work hours per month were classified into three groups: short (<45 hours), medium (45–79 hours), and long (≥80 hours). Exercise habits were classified into two groups using a self-administered questionnaire: yes or no. Odds ratios (ORs) of psychological distress, defined as scores≥4 on the 12-item General Health Questionnaire, were calculated using multiple logistic regression analyses adjusting for age, gender, marital and residence status, occupation, drinking habits, smoking history and psychosocial work characteristics.

Results Compared to the short overtime with exercise habits group, the ORs (95% confidence intervals) for psychological distress were significant for the medium overtime with exercise habits group (OR=1.81 [1.20–2.75]), medium overtime without exercise habits group (OR=2.11 [1.37–3.25]), and long overtime without exercise habits group (OR=3.03 [1.64–5.58]). No significant ORs were observed for any other group combinations.

Discussion In the medium overtime group, overtime work hours were significantly associated with psychological distress regardless of exercise habits. However, in the long overtime group, this significant association disappeared among those with exercise habits. Our findings suggest that exercise habits reduce psychological distress in relation to long (i.e., ≥80 hours) overtime work hours.