Association between shift work and suicidal ideation: data from the Korea National Health and Nutrition Examination Survey (2008–2016) [1]

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1. *Supplementary tables*
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Supplemental table S1. Characteristics of final participants and excluded individuals due to missing data on mental health. [SD=standard deviation]

	Included (n=17,756)		Excluded (n=6,485)		
	N (%)	Mean (SD)	N (%)	Mean (SD)	p-value
Demographics					
Age, years		45.6 (15.1)		46.7 (14.9)	<0.001
Female	8,876 (50.0)		3,298 (50.9)		0.232
Marital status					
Married	12,586 (89.2)		4,630 (88.4)		0.086
Unmarried[a]	1,517 (10.8)		609 (11.6)		
Household income					
High	10,795 (61.3)		4,065 (62.8)		0.031
Low	6,816 (38.7)		2,406 (37.2)		
Lifestyle factors					
Obese	5,658 (32.0)		2,164 (33.4)		0.040
Current smoker	3,972 (22.4)		1,288 (20.1)		<0.001
Problem drinker	982 (5.5)		409 (6.3)		0.021
Common comorbidities					
Hypertension	2,741 (15.4)		1,101 (17.0)		0.004
Diabetes	990 (5.6)		387 (6.0)		0.243
Arthritis	1,438 (8.1)		484 (7.5)		0.105
Work hours per week		41.7 (25.7)		40.3 (18.1)	<0.001

Occupational type[b]			
Non-manual	9,211 (59.8)	3,571 (62.6)	<0.001
Manual	6,197 (40.2)	2,138 (37.5)	
Shift work type			
Day	15,286 (86.1)	5,683 (87.6)	<0.001
Evening	1,928 (10.9)	668 (10.3)	
Night	542 (3.1)	134 (2.1)	

[a]Includes single, separated, divorced, and windowed.

[b]Recategorized according to physical strain from the Korean Standard Classification of Occupation.

Supplementary table S2. Factors associated with mental health issues in the current sample by sex.

	Male worker (n=5,283)			Female worker (n=4,711)		
	Perceived stress	Depressive mood	Suicidal ideation	Perceived stress	Depressive mood	Suicidal ideation
	OR[a] (95% CI)	OR[a] (95% CI)	OR[a] (95% CI)	OR[a] (95% CI)	OR[a] (95% CI)	OR[a] (95% CI)
Increased age (per 1-year)	0.97 (0.96–0.98)***		1.03 (1.02–1.04)***	0.99 (0.98–1.00)**	—	—
Low income	—	1.40 (1.13–1.75)**	1.60 (1.28–2.01)***	1.39 (1.21–1.60)***	1.31 (1.10–1.56)**	1.45 (1.20–1.75)***
Unmarried	—	1.61 (1.03–2.51)*	1.75 (1.16–2.65)**	—	1.52 (1.23–1.88)***	—
Obese	—	—	—	—	—	—
Current smoker	1.33 (1.16–1.52)***	1.41 (1.13–1.75)**	1.80 (1.44–2.25)***	1.75 (1.28–2.39)***	1.71 (1.19–2.46)**	2.01 (1.38–2.90)***
Problem drinker	—	1.49 (1.09–2.04)*	1.42 (1.04–1.94)*	2.47 (1.47–4.13)**	1.83 (1.03–3.26)*	2.10 (1.16–3.80)*

Regular exercise	—		—		—	1.37	(1.16–1.61)***	1.33	(1.09–1.64)**	1.52	(1.23–1.87)***
Hypertension	1.21	(1.01–1.46)*	1.52	(1.18–1.97)**	—	1.23	(1.02–1.47)*	—		—	
Arthritis	1.41	(1.01–1.96)*	1.68	(1.12–2.53)*	—	1.39	(1.15–1.68)**	1.27	(1.02–1.58)*	1.71	(1.37–2.12)***
Longer work (per 1-hour)	1.01	(1.00–1.02)***	—		—	1.01	(1.00–1.01)***	—		—	
Manual work	0.58	(0.50–0.66)***	—		—	0.77	(0.66–0.90)**	—		1.36	(1.13–1.64)**

OR, odds ratio; CI, confidence interval.
[a]From a stepwise multivariate logistic analysis.

*P<0.05; **P<0.01; ***P<0.001.