

Appendix 1—Association between sleep quality, duration and the EQ-5D index and VAS scores (linear regression analysis) for women and men

	Women		Men	
	EQ-5D index score	EQ-5D VAS score	EQ-5D index score	EQ-5D VAS score
Sleep quality*				
Poor	-0.048 (-0.063, -0.034)	-5.9 (-7.7, -4.1)	-0.061 (-0.081, -0.040)	-3.8 (-6.5, -1.1)
Intermediate	-0.017 (-0.028, -0.006)	-4.5 (-5.9, -3.1)	-0.028 (-0.041, -0.015)	-2.6 (-4.4, -0.9)
Good	Ref.	Ref.	Ref.	Ref.
Sleep duration 24-hour period (hours)*				
≤6	-0.003 (-0.029, 0.023)	0.3 (-3.5, 4.2)	-0.016 (-0.034, 0.002)	-0.6 (-3.5, 2.4)
6.01-7	0.003 (-0.012, 0.019)	-0.4 (-2.5, 1.7)	-0.007 (-0.020, 0.006)	-0.7 (-2.6, 1.3)
7.01-8	Ref.	Ref.	Ref.	Ref.
8.01-9	-0.003 (-0.013, 0.007)	-0.9 (-2.2, 0.5)	-0.001 (-0.009, 0.007)	-0.5 (-1.8, 0.9)
9.01-10	-0.005 (-0.017, 0.007)	-2.3 (-4.0, 0.6)	-0.002 (-0.011, 0.008)	-0.9 (-2.5, 0.7)
>10	-0.013 (-0.027, 0.002)	-3.5 (-5.5, -1.6)	-0.006 (-0.018, 0.007)	-2.7 (-4.7, -0.7)

EQ-5D: European Quality of Life-5 Dimensions; VAS: visual analogue scale; CI: confidence interval.

*Multiple logistic regression adjusted for sociodemographic characteristics age, gender, education level, marriage status, working, dwelling space, monthly income; health conditions obesity, hypertension, hyperlipidemia, diabetes, cataract, history of heart disease, history of stroke, cognitive impairment; and lifestyle habits smoking, alcohol consumption, dietary, outdoor activities.

Bold indicates $P < .05$.

Appendix 2—Odds ratios (95% confidence interval) of sleep quality and duration in predicting health problems

	Hypertension	Hyperlipidemia	Diabetes	Cataract	History of heart disease	History of stroke	Cognitive dysfunction	Obesity
Sleep quality*								
Poor	0.81 (0.62, 1.07)	0.91 (0.57, 1.45)	0.89 (0.61, 1.29)	1.01 (0.77, 1.30)	1.93 (1.34, 2.79)	1.97 (0.99, 3.92)	1.64 (1.22, 2.21)	0.98 (0.43, 2.21)
Intermediate	0.90 (0.72, 1.14)	0.83(0.55, 1.25)	0.79 (0.57, 1.10)	1.21 (0.97, 1.50)	1.45 (1.02, 2.06)	0.94 (0.41, 2.17)	1.34 (1.03, 1.75)	0.65 (0.29, 1.45)
Good	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Sleep duration per 24-hour period* (hours)								
≤6	0.64 (0.42, 1.01)	1.96(0.95, 4.04)	1.45 (0.77, 2.76)	0.90 (0.57, 1.41)	2.19 (1.08, 4.47)	1.82 (0.38, 8.68)	0.72 (0.31, 1.64)	2.49 (0.86, 7.22)
6.01-7	1.02 (0.75, 1.38)	1.09 (0.62, 1.92)	1.39 (0.91, 2.12)	1.16 (0.87, 1.55)	1.67 (1.01, 2.79)	1.31 (0.44, 3.89)	1.15 (0.76, 1.75)	0.51 (0.15, 1.78)
7.01-8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8.01-9	1.27 (1.03, 1.57)	1.16 (0.80, 1.68)	1.25 (0.92, 1.68)	0.89 (0.73, 1.08)	1.04 (0.70, 1.52)	0.39 (0.14, 1.07)	1.23 (0.93, 1.64)	0.93 (0.48, 1.80)
9.01-10	1.52 (1.18, 1.96)	0.89 (0.57, 1.39)	1.73 (1.26, 2.39)	0.68 (0.54, 0.85)	1.15 (0.76, 1.74)	1.04 (0.44, 2.44)	1.54 (1.14, 2.09)	1.64 (0.84, 3.19)
>10	1.59 (1.08, 2.12)	1.26 (0.80, 1.99)	1.43 (1.00, 2.06)	0.62 (0.48, 0.80)	1.35 (0.88, 2.06)	1.95 (0.89, 4.30)	2.09 (1.52, 2.85)	0.79 (0.32, 1.93)

*Multiple logistic regression adjusted for sociodemographic characteristics age, gender, education level, marriage status, working, dwelling space, monthly income; health conditions included all the other conditions except for the condition analyzed; and lifestyle habits smoking, alcohol consumption, dietary, outdoor activities.

Bold indicates $P < .05$.