

Supplementary Table 3. Multivariate logistic regression analysis for the high-risk group of obstructive sleep apnea, compared by gender of the study population

Variable	Male						Female					
	Model 1			Model 2			Model 1			Model 2		
	OR (95% CI)	p value		OR (95% CI)	p value		OR (95% CI)	p value		OR (95% CI)	p value	
Age	1.02 (1.01–1.02)	<0.001		1.02 (1.01–1.02)	<0.001		1.03 (1.01–1.05)	<0.001		1.03 (1.01–1.05)	<0.001	
Education		0.336			0.013			0.160			0.959	
Elementary	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Middle	1.34 (0.93–1.93)			1.53 (1.06–2.22)			0.86 (0.38–1.95)			1.03 (0.43–2.44)		
High	1.25 (0.94–1.66)			1.65 (1.21–2.25)			0.57 (0.31–1.05)			0.84 (0.38–1.85)		
College	1.13 (0.85–1.51)			1.64 (1.19–2.25)			0.48 (0.23–1.01)			0.78 (0.28–2.30)		
Household income		0.044			0.056			0.015			0.189	
Q1	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Q2	1.01 (0.73–1.41)			1.10 (0.79–1.53)			0.74 (0.36–1.52)			0.85 (0.42–1.70)		
Q3	0.94 (0.68–1.30)			1.12 (0.80–1.57)			0.37 (0.19–0.74)			0.47 (0.22–0.99)		
Q4	0.73 (0.53–1.00)			0.90 (0.64–1.27)			0.45 (0.20–1.02)			0.58 (0.25–1.36)		
Q5	1.08 (0.79–1.47)			1.33 (0.95–1.87)			0.30 (0.13–0.67)			0.39 (0.17–0.90)		
Occupation, no	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Yes	0.96 (0.77–1.18)	0.681		1.21 (0.95–1.56)	0.126		0.56 (0.33–0.96)	0.035		0.67 (0.37–1.20)	0.175	
Smoking		0.027			0.049			0.445			0.394	
Non	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Former	1.35 (1.07–1.70)			1.33 (1.06–1.67)			1.82 (0.56–5.86)			2.05 (0.64–6.58)		
Current	1.14 (0.89–1.46)			1.19 (0.93–1.53)			0.46 (0.06–3.43)			0.54 (0.07–4.02)		
Alcohol consumption		0.004			<0.001			0.908			0.642	
Non	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Mild to moderate	0.96 (0.76–1.23)			1.06 (0.83–1.36)			0.93 (0.54–1.59)			1.22 (0.66–2.23)		
Heavy	1.43 (1.06–1.93)			1.65 (1.21–2.25)			1.25 (0.29–5.33)			1.92 (0.42–8.72)		
Physical activity, no	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Yes	0.96 (0.80–1.16)	0.687		0.98 (0.81–1.18)	0.821		0.51 (0.29–0.90)	0.019		0.56 (0.32–0.98)	0.042	
DM, no	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Yes	2.24 (1.78–2.82)	<0.001		2.14 (1.69–2.71)	<0.001		4.00 (2.41–6.63)	<0.001		3.49 (1.99–6.10)	<0.001	
HTN, no	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Yes	5.61 (4.62–6.83)	<0.001		5.65 (4.59–6.96)	<0.001		15.61 (6.54–37.28)	<0.001		18.54 (7.27–47.31)	<0.001	
Hypercholesterolemia, no	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Yes	1.90 (1.59–2.28)	<0.001		1.87 (1.56–2.25)	<0.001		1.96 (1.17–3.28)	0.011		1.66 (0.99–2.80)	0.055	
CKD, no	1 (ref)			1 (ref)			1 (ref)			1 (ref)		
Yes	1.32 (0.84–2.06)	0.223		1.08 (0.68–1.72)	0.755		4.09 (1.73–9.67)	0.001		2.86 (1.16–7.09)	0.023	

Supplementary Table 3. Continued

Variable	Male			Female		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Obesity, no	1 (ref)	<0.001	1 (ref)	<0.001	1 (ref)	<0.001
Yes	3.00 (2.47–3.63)		2.35 (1.91–2.91)		20.89 (9.55–45.73)	
Abdominal obesity, no	1 (ref)	<0.001	1 (ref)	<0.001	1 (ref)	0.106
Yes	3.02 (2.52–3.63)		1.57 (1.24–2.00)		15.41 (6.67–35.58)	
BMI level, kg/m ²		<0.001	<0.001	<0.001	<0.001	<0.001
< 18.5	0.19 (0.04–0.82)		0.18 (0.04–0.81)		-	-
< 23	1 (ref)		1 (ref)		1 (ref)	1 (ref)
< 25	2.51 (1.86–3.38)		2.29 (1.65–3.18)		0.26 (0.06–1.10)	0.20 (0.05–0.88)
< 30	3.96 (2.99–5.25)		3.11 (2.26–4.27)		5.26 (2.00–13.81)	3.47 (1.26–9.57)
< 35	26.45 (15.71–44.52)		23.16 (13.55–39.60)		71.73 (28.97–177.60)	46.45 (18.53–116.43)
≥ 35	20.26 (5.70–72.03)		16.02 (4.76–53.94)		165.09 (46.17–590.26)	65.53 (17.23–249.29)
Obesity group	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Low BMI, low WC	1 (ref)		1 (ref)		1 (ref)	1 (ref)
Low BMI, high WC	1.72 (1.22–2.41)		1.25 (0.87–1.81)		1.29 (0.29–5.92)	0.92 (0.19–4.38)
High BMI, low WC	1.65 (1.14–2.41)		1.37 (0.92–2.04)		4.75 (0.89–25.19)	4.64 (0.82–26.24)
High BMI, high WC	3.76 (3.05–4.65)		2.74 (2.17–3.47)		25.07 (9.90–63.48)	15.79 (6.10–40.90)
DM + HTN + obesity, no	1 (ref)	<0.001	1 (ref)	<0.001	1 (ref)	<0.001
Yes	5.73 (4.31–7.61)		3.56 (2.61–4.86)		9.98 (5.60–17.79)	4.71 (2.62–8.48)

Model 1 was unadjusted; Model 2 was adjusted for age and sex; Model 3 was adjusted for age, sex, education, household income, occupation, smoking, drinking, physical activity, DM, hypertension, hypercholesterolemia, CKD, obesity, and abdominal obesity (weight circumference: men ≥ 90/women 85 cm). Abdominal obesity was defined as WC ≥ 90 cm in men, and ≥ 85 cm in women. Low and high WC was determined by this standard. Obesity was defined as subjects with BMI ≥ 25 kg/m². OR, odds ratio; CI, confidence interval; DM, diabetes mellitus; HTN, hypertension; CKD, chronic kidney disease; BMI, body mass index; WC, waist circumference.