

Supplementary Materials

Table S1. Result of multivariable ordinal logistic regression analysis for knee pain (numeric rating scale) in subjects with radiographic OA.

Variables	Univariable			Multivariable		
	OR	95% CI	<i>p</i> -value	OR	95% CI	<i>p</i> -value
Female sex	2.79	2.37–3.29	<0.001	1.50	1.18–1.91	0.001
Age	1.04	1.02–1.05	<0.001	1.01	0.99–1.02	0.444
BMI	1.07	1.04–1.09	<0.001	1.04	1.01–1.07	0.011
Residential area (rural)	1.25	1.05–1.48	0.010	1.07	0.89–1.29	0.497
Household income			<0.001			0.020
Quartile 4 (high)	1			1		
Quartile 3	1.06	0.83–1.36		1.09	0.84–1.42	
Quartile 2	1.45	1.15–1.84		1.35	1.05–1.74	
Quartile 1 (low)	1.69	1.37–2.09		1.38	1.08–1.76	
Alcohol consumption			<0.001			0.638
High	1			1		
Moderate	1.29	0.91–1.83		1.00	0.64–1.54	
Low	2.20	1.66–2.92		1.21	0.78–1.62	
Physical activity			<0.001			0.796
High	1			1		
Moderate	1.16	0.96–1.41		1.09	0.86–1.38	
Low	1.46	1.22–1.74		1.05	0.85–1.30	
Education attainment			<0.001			<0.001
Graduate school	1			1		
University	1.26	0.37–4.34		1.72	0.45–6.60	
College	1.47	0.26–8.34		1.32	0.21–8.22	
High school	2.38	0.81–7.03		2.13	0.65–6.96	
Middle school	4.85	1.66–14.19		4.01	1.24–12.96	
Elementary school	6.91	2.42–19.92		4.60	1.45–14.61	
Less than elementary school	11.71	4.02–34.06		6.88	2.10–22.55	
None	8.85	2.71–28.91		4.02	1.09–14.86	
KL grade			<0.001			<0.001
Grade 4	1			1		
Grade 3	0.35	0.29–0.42		0.37	0.30–0.45	
Grade 2	0.15	0.12–0.18		0.21	0.17–0.26	
Metabolic syndrome	1.28	1.09–1.50	0.002	1.03	0.85–1.25	0.752
Hypercholesterolemia	1.37	1.13–1.65	0.001	1.24	1.02–1.52	0.033

OA, osteoarthritis; OR, odds ratio; CI, confidence interval; BMI, body mass index; KL, Kellgren–Lawrence; Bold, *p*-value < 0.05.

Table S2. Result of multivariable ordinal logistic regression analysis for knee pain (numeric rating scale) in subjects without radiographic OA.

Variables	Univariable			Multivariable		
	OR	95% CI	<i>p</i> -value	OR	95% CI	<i>p</i> -value
Female sex	3.07	2.47–3.82	<0.001	2.05	1.49–2.82	<0.001
Age	1.03	1.01–1.05	0.003			0.802
BMI	1.07	1.03–1.11	0.002			0.003
Residential area (rural)	1.44	1.15–1.80	0.002	1.31	1.02–1.67	0.032
Household income			<0.001			0.172
Quartile 4 (high)	1			1		
Quartile 3	1.42	0.96–2.10		1.25	0.82–1.89	
Quartile 2	1.77	1.22–2.56				
Quartile 1 (low)	2.19	1.55–3.10				
Alcohol consumption			<0.001			0.712
High	1			1		
Moderate	1.41	0.89–2.23		1.16	0.71–1.88	
Low	2.35	1.64–3.36		1.19	0.79–1.81	
Current smoking	0.52	0.38–0.71	<0.001	0.80	0.55–1.16	0.235
Physical activity			0.049			0.819
High	1			1		
Moderate	1.24	0.92–1.67		1.10	0.81–1.51	
Low	1.40	1.07–1.84		1.08	0.80–1.46	
Education attainment			<0.001			<0.001
Graduate school	1			1		
University	0.35	0.12–1.02		0.33	0.11–1.04	
College	0.50	0.14–1.78		0.33	0.08–1.31	
High school	0.56	0.23–1.38		0.45	0.17–1.16	
Middle school	1.18	0.47–2.91		0.82	0.30–2.19	
Elementary school	1.69	0.70–4.08		0.89	0.34–2.32	
Less than elementary school	3.62	1.46–8.96		1.74	0.64–4.71	
None	2.44	0.69–8.69		1.55	0.40–5.97	
Hypercholesterolemia	1.33	1.03–1.72	0.027	1.14	0.88–1.49	0.329

OA, osteoarthritis; OR, odds ratio; CI, confidence interval; BMI, body mass index; Bold, *p*-value < 0.05.

Table S3. Result of multivariable ordinal logistic regression analysis for severity of radiographic OA (KL grade).

Variables	Univariable			Multivariable		
	OR	95% CI	<i>p</i> -value	OR	95% CI	<i>p</i> -value
Female sex	2.86	2.62–3.12	<0.001	2.41	2.13–2.73	<0.001
Age	1.08	1.07–1.09	<0.001	1.09	1.08–1.11	<0.001
BMI	1.11	1.10–1.13	<0.001	1.15	1.13–1.17	<0.001
Residential area (rural)	1.42	1.25–1.62	<0.001	1.32	1.15–1.52	<0.001
Household income			<0.001			0.814
Quartile 4 (high)	1			1		
Quartile 3	1.06	0.91–1.24		1.03	0.88–1.20	
Quartile 2	1.23	1.05–1.43		1.08	0.92–1.27	
Quartile 1 (low)	1.55	1.34–1.80		1.03	0.87–1.21	
Alcohol consumption			<0.001			0.606
High	1			1		
Moderate	1.14	0.94–1.38		1.04	0.86–1.25	
Low	1.94	1.65–2.27		1.09	0.91–1.30	
Current smoking	0.56	0.49–0.64	<0.001	0.97	0.83–1.13	0.682
Physical activity			<0.001			
High	1			1		
Moderate	1.12	0.99–1.27		1.09	0.95–1.25	
Low	1.33	1.18–1.49		1.10	0.97–1.25	
Education attainment			<0.001			<0.001
Graduate school	1			1		
University	1.00	0.70–1.42		0.96	0.64–1.42	
College	1.01	0.59–1.72		1.17	0.66–2.07	
High school	1.50	1.07–2.09		1.35	0.93–1.98	
Middle school	1.83	1.29–2.58		1.43	0.96–2.13	
Elementary school	2.85	2.03–3.98		1.67	1.13–2.48	
Less than elementary school	4.92	3.49–6.93		1.74	1.16–2.62	
None	5.80	3.29–10.23		1.84	0.94–3.60	
Hypertension	1.53	1.39–1.69	<0.001	1.16	1.03–1.31	0.012
Metabolic syndrome	1.43	1.28–1.58	<0.001	1.15	1.02–1.29	0.018
Hypercholesterolemia	1.13	1.00–1.29	0.056			

OA, osteoarthritis; OR, odds ratio; CI, confidence interval; BMI, body mass index; KL, Kellgren-Lawrence; Bold, *p*-value < 0.05.