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Determinants of Restrictive Spirometric Pattern in a Sub-Saharan Urban Setting: A Cross-sectional Population-based Study

Eric Walter Pefura-Yone^{1,2,*}, Adamou Dodo Balkissou^{1,2} and Andre Pascal Kengne^{3,4}¹Department of Internal Medicine and Specialties, Faculty of Medicine and Biomedical Sciences, University of Yaounde I, Yaounde, Cameroon²Pneumology Service, Yaounde Jamot Hospital, Yaounde, Cameroon³South African Medical Research Council, Cape Town, South Africa⁴University of Cape Town, Cape Town, South Africa, Cape Town, South Africa

Supplementary Table 1. Univariable association between spirometric restrictive pattern by fixed cut-off (FVC < 80%, FEV1/FVC ≥ LLN) and selected determinants.

Determinants	Restrictive pattern N=150 (%)	Normal CVF N=853 (%)	COR (95%CI)	p-value
Gender				
Male	79(52.7)	410(48.1)	1.20(0.85-1.70)	0.299
Female	71(47.3)	443(51.9)	1	
Age, mean (SD), years	37.5(14.4)	33.0(11.5)	1.03(1.02-1.04)	<0.001
Age group, years				
19-39	95(63.3)	635(74.4)	1	
40-59	39(26)	190(22.3)	1.37(0.91-2.06)	0.127
≥ 60	16(10.7)	28(3.3)	3.82(1.99-7.32)	<0.001
Education				
≤ secondary	110(73.3)	554(64.9)	1.49(1.01-2.19)	0.045
Higher	40(26.7)	299(35.1)	1	
Subject/chamber				
≤ 2	79(52.7)	482/853(56.6)	0.85(0.60-1.21)	0.374
> 2	71(47.3)	370/853(43.4)	1	
Tobacco smoking				
Current smoker	16(10.7)	74/849(8.7)	1.28(0.72-2.27)	0.350
Ex-smokers	12(8)	52/849(6.1)	1.37(0.71-2.64)	0.397
Non smokers	122(81.3)	723/849(85.2)	1	
Cooking fuel				
Biomass	17/147(11.6)	59/835(7.1)	1.81(0.99-3.31)	0.053
Mixed	68/147(46.3)	386/835(46.2)	1.11(0.76-1.61)	0.588
Clean	62/147(42.2)	390/835(46.7)	1	
Past history of TB				
Yes	8(5.3)	10(1.2)	4.75(1.84-12.24)	0.001
No	142(94.7)	843(98.8)	1	
Past history of pneumonia				

(Table 1) contd....

Determinants	Restrictive pattern N=150 (%)	Normal CVF N=853 (%)	COR (95%CI)	p-value
Yes	7(4.7)	21(2.5)	1.94(0.81-4.65)	0.137
No	143(95.3)	832(97.5)	1	
Self-reported asthma				
Yes	3(2)	20(2.3)	0.85(0.25-2.90)	0.795
No	147(98)	833(97.7)	1	
History of stroke				
Yes	2(1.3)	2(0.2)	5.75(0.80-41.14)	0.081
No	148(98.7)	851(99.8)	1	
Self-reported diabetes mellitus				
Yes	4(2.7)	8(0.9)	2.89(0.86-9.73)	0.086
No	146(97.3)	845(99.1)	1	
Self-reported hypertension				
Yes	7(4.7)	33(3.9)	1.22(0.53-2.80)	0.646
No	143(95.3)	820	1	
History of heart disease				
Yes	5(3.3)	9(1.1)	3.23(1.07-9.79)	0.038
No	145(96.7)	844(98.9)	1	
Self-reported HIV infection				
Yes	0(0)	7(0.8)	/	/
No	120(80)	667(78.2)	1.07(0.69-1.65)	0.748
Don't know	30(20)	179(21)	1	
Respiratory symptoms				
Chronic cough	7(4.7)	15(1.8)	2.73(1.09-6.83)	0.031
Chronic expectoration	2(1.3)	6(0.7)	1.91(0.38-9.54)	0.432
Recent wheezing	4(2.7)	20(2.3)	1.14(0.38-3.39)	0.057
Dyspnea	47(31.3)	206(24.2)	1.43(0.98-2.09)	0.063
mMRC dyspnea > 2	13(8.7)	32(3.8)	2.44(1.25-4.76)	0.007
Any respiratory symptoms	50(33.3)	221(25.9)	1.43(0.99-2.08)	0.059
BMI, Kg/m ² , Mean (SD)	26.0(5.9)	26.5(5.2)	0.98(0.95-1.02)	0.306
BMI classes				
Underweight	5(3.4)	4(0.5)	6.74(1.77-25.69)	0.005
Overweight	37(24.8)	273(32.1)	0.73(0.48-1.12)	0.147
Obese	33(22.1)	175(20.6)	1.02(0.65-1.59)	0.942
Normal	74(49.7)	399(46.9)	1	

LLN, lower limit of normal; FVC, forced vital capacity; FEV₁, forced expiratory volume in 1s; COR, crude odds ratio; TB, tuberculosis; mMRC, modified Medical Research Council scale; BMI, body mass index.

Supplementary Table 2. Independent determinants of spirometric restrictive pattern by fixed cut-off (FVC < 80%, FEV₁/FVC ≥ LLN).

Determinants	AOR	95% CI	p-value
Male gender	0.79	0.54-1.16	0.232
Age group, years			
19-39	1		
40-59	1.31	0.82-2.07	0.258
≥ 60	3.19	1.52-6.67	0.002
Education ≤ secondary	1.40	0.92-2.14	0.118
Cooking fuel			
Biomass	1.57	0.81-3.03	0.178
Mixed	1.10	0.74-1.64	0.627
Clean	1		
Past history of TB	3.79	1.39-10.35	0.009
History of stroke	4.68	0.49-44.85	0.181

(Table 2) contd.....

Determinants	AOR	95% CI	p-value
Self-reported diabetes mellitus	1.22	0.27-5.44	0.794
History of cardiac disease	1.64	0.45-5.94	0.450
Chronic cough	2.01	0.71-5.68	0.187
Recent wheezing	0.94	0.29-3.04	0.913
mMRC dyspnea > 2	2.04	0.94-4.40	0.070
BMI classes			
Underweight	6.94	1.71-28.21	0.007
Overweight	0.65	0.41-1.03	0.063
Obese	0.76	0.46-1.28	0.187
Normal	1		

LLN, lower limit of normal; FVC, forced vital capacity; AOR, adjusted odds ratio; TB, tuberculosis; mMRC, modified Medical Research Council scale; BMI, body mass index.

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