

Table 2 Bivariate analysis for sociodemographic and health characteristics as determinants of COVID-19 vaccine acceptance among healthcare workers (n = 576) in Sudan, 2021

Characteristic	Vaccine acceptance/ refusal (n = 421) ^a		Unadjusted OR (95% CI)	P
	Accept	Refuse		
	Mean (SD)	Mean (SD)		
Age (years)	36.5 (11.5)	34.1 (9.6)		0.04
Duration of practice (years)	11.6 (10.8)	9.4 (8.6)		0.04
	No. (%)	No. (%)		
Sex				
Male	181 (85.8)	30 (14.2)	2.52 (1.55–4.11)	< 0.01
Female ^b	148 (70.5)	62 (29.5)		
Has comorbidities				
Yes	93 (79.5)	24 (20.5)	1.11 (0.66–1.88)	0.68
No ^b	236 (77.6)	68 (22.4)		
Immune suppressing medication				
Yes	9 (69.2)	4 (30.8)	0.61 (0.18–2.06)	0.49
No ^b	316 (78.4)	87 (21.6)		
Health profession				
Medicine	190 (79.2)	50 (20.8)	1.03 (0.93–1.14)	0.50
Nursing	4 (28.6)	10 (71.4)	0.35 (0.15–0.82)	< 0.01
Pharmacy	31 (72.1)	12 (27.9)	0.91 (0.75–1.10)	0.31
Medical laboratory	13 (76.5)	4 (23.5)	0.97 (0.74–1.27)	0.86
Public health	55 (85.9)	9 (14.1)	1.12 (0.99–1.25)	0.10
Dentistry	14 (82.4)	3 (17.6)	1.05 (0.84–1.32)	0.66
Other	22 (84.6)	4 (15.4)	1.08 (0.91–1.29)	0.41
State where you are practising				
Khartoum	245 (76.3)	76 (23.7)	0.629 (0.34–1.14)	0.12
Other than Khartoum ^b	82 (83.7)	16 (16.3)		
Training on COVID-19				
Yes	167 (82.3)	36 (17.7)	1.60 (1.00–2.57)	0.04
No ^c	162 (74.3)	56 (25.7)		
Weak	4 (57.1)	3 (42.9)	0.67 (0.12–3.83)	0.65
Self-rated knowledge about COVID-19				
Good	14 (66.7)	7 (33.3)	0.57 (0.12–2.70)	0.48
Moderate	79 (69.9)	34 (30.1)	0.26 (0.06–1.23)	0.09
Very good	138 (83.6)	27 (16.4)	0.30 (0.06–1.43)	0.13
Excellent ^d	94 (81.7)	21 (18.3)		
Self-rated knowledge about COVID-19 vaccination				
Weak	38 (59.4)	26 (40.6)	0.50 (0.25–1.00)	0.05
Good	62 (74.7)	21 (25.3)	0.34 (0.17–0.66)	< 0.01
Moderate	103 (81.1)	24 (18.9)	0.28 (0.14–0.59)	< 0.01
Very good	83 (83.8)	16 (16.2)	0.17 (0.06–0.49)	< 0.01
Excellent ^b	43 (89.6)	5 (10.4)		
History of COVID-19 infection				
Yes	67 (77.0)	20 (23.0)	0.92 (0.52–1.61)	0.77
No ^b	262 (78.4)	72 (21.6)		
Family member ever diagnosed with COVID-19				
Yes	120 (78.4)	33 (21.6)	1.02 (0.63–1.66)	0.91
No ^b	209 (78.0)	59 (22.0)		
Directly or indirectly been taking care of COVID-19 patients				
Yes	183 (82.8)	38 (17.2)	1.78 (1.11–2.84)	0.01
No ^b	146 (73.0)	54 (27.0)		

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^aRes p o n d e n t s A s h o k a n s w e r e d A M a y b e A w e n A x c l u d e d f r o m t h e A n a l y s i s A

^bR e f e r e n c e A t e g o r y