

Table 4 Multivariable logistic regression for determinants of COVID-19 vaccine acceptance among healthcare workers (n = 576) in Sudan, 2021

Determinant	Mean (SD)	P
Age (years)	1.01 (0.98–1.05)	0.32
Duration of practice (years)	0.99 (0.92–1.06)	0.66
Sex	^aOR (95% CI)	
Male	2.39 (1.23–4.63)	0.01
Female ^a		
Health profession		
Medicine ^b	0.25 (0.08–0.74)	0.01
Nursing ^b	0.04 (0.01–0.24)	< 0.00
Pharmacy ^b	0.22 (0.05–0.83)	0.03
Medical laboratory ^b	0.78 (0.12–4.94)	0.80
Public Health ^b	0.90 (0.25–3.22)	0.10
Dentistry ^b	0.41 (0.06–2.80)	0.37
Other ^b	0.45 (0.08–2.46)	0.36
Training on COVID-19		
Yes	1.32 (0.58–3.00)	0.51
No ^a		
Self-rated knowledge about COVID-19		
Weak	1.02 (0.28–3.65)	0.98
Good	0.91 (0.27–3.03)	0.87
Moderate	0.68 (0.17–2.69)	0.58
Very good	0.63 (0.09–4.03)	0.62
Excellent ^a		
Self-rated knowledge about COVID-19 vaccination		
Weak	0.41 (0.06–2.80)	0.12
Good	0.45 (0.08–2.46)	0.01
Moderate	0.56 (0.27–1.16)	0.02
Very good	0.36 (0.19–0.81)	0.02
Excellent ^a		

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Determinant	Mean (SD)	P
Directly or indirectly been taking care of COVID-19 patients		
Yes	1.03 (0.47–2.35)	0.93
No ^a		
Perceived susceptibility		
Yes	1.31 (0.47–3.63)	0.61
No ^a		
Perceived benefit		
Yes	1.51 (0.55–4.14)	0.42
No ^a		
Perceived barriers		
I don't trust pharmaceutical companies making the vaccine ^c	0.19 (0.07–0.47)	< 0.01
Perceived harm		
I don't trust the organizations/ government supervising the COVID-19 vaccination process ^c	0.59 (0.25–1.41)	0.24
I don't believe the vaccine is safe ^c	0.35 (0.13–0.96)	0.04
Perceived severity		
Mild (Yes) ^b	0.33 (0.13–0.86)	0.02
Moderate (Yes) ^b	0.50 (0.14–1.82)	0.29
High (yes) ^b	1.65 (0.76–3.61)	0.21
Cues to action (taking the vaccine)		
To prevent COVID-19 in myself ^b	52.50 (15.90–172.60)	< 0.01
To prevent COVID-19 in friends and family members ^b	85.09 (27.30–264.70)	< 0.01
To prevent COVID-19 in the community ^b	54.55 (20.89–142.43)	< 0.01

SD Standard deviation

^aOR Adjusted Odds Ratio

CI Confidence Interval

^aReference category

^bReference category

^cReference category is agree