Table 3 Univariate and multivariable logistic regression analyses of factors associated with multiple tobacco product use among waterpipe smokers in Egypt, 2015–2017

Variable	Univariate analysis		Multivariable logistic regression analysis			
	OR (95% CI)	P-value	β	SE	OR$_a$ (95% CI)	P-value
Female gender	1.75 (1.21–2.53)	0.003	0.383	0.230	1.47 (0.94–2.3)	0.095
Younger age	1.64 (1.32–2.03)	< 0.001	0.317	0.169	1.37 (0.99–1.91)	0.061
Higher education attainment	2.35 (1.82–3.04)	< 0.001	0.592	0.151	1.81 (1.34–2.43)	< 0.001
Unmarried	1.64 (1.32–2.03)	< 0.001	−0.113	0.174	0.89 (0.64–1.26)	0.518
Exposed to second-hand smoke at home	1.37 (1.09–1.69)	0.005	0.082	0.139	1.09 (0.83–1.43)	0.554
Non-daily waterpipe smoker	2.24 (1.71–2.94)	< 0.001	0.408	0.163	1.5 (1.09–2.07)	0.012
Older age at starting to smoke waterpipes	1.58 (1.28–1.93)	< 0.001	0.220	0.117	1.25 (0.99–1.57)	0.060
Usually smokes waterpipes in cafes	1.77 (1.44–2.17)	< 0.001	0.626	0.136	1.87 (1.43–2.44)	< 0.001
Believes waterpipe smoking is more harmful than cigarette smoking	1.31 (1.07–1.61)	0.010	0.030	0.144	1.03 (0.78–1.37)	0.833
Knows of health warning on waterpipe tobacco packs	1.57 (1.25–1.93)	< 0.001	0.827	0.167	2.29 (1.65–3.17)	< 0.001

OR = odds ratio; CI = confidence interval; SE = standard error; OR$_a$ = adjusted odds ratio.