

Table

Table1 Modifying factors: demographic and socio-economic characteristics and knowledge on preventive measures (N=5675)

Characteristics	Count	Percentage (%)
Sex		
Male	1970	34.7
Female	3705	65.3
Age (year)		
18-29	2177	38.4
30-49	2463	43.4
≥50	1035	18.2
Educational attainment		
Junior and senior high school and below	1375	24.2
College	1607	28.3
University and above	2693	47.5
Occupation		
Health professionals	798	14.1
Government or public institution staff	2169	38.2
Factory workers	483	8.5
Students	1202	21.2
Others	1023	18.0
Annual household income		
Lower	994	17.5
Lower middle	1287	22.7
Upper middle	1886	33.2
Upper	1508	26.6
Having family member who was health professional		

Yes	2042	36.0
No	3633	64.0
Living area at risk level of COVID-19 prevalence		
High	230	4.1
Middle	2201	38.8
Low	3244	57.2
Knowledge		
Wear face mask when you went out	5669	99.9
Wash hands frequently	5667	99.9
Indoor ventilation for more than 2 hours per day	5661	99.8
Maintain good respiratory hygiene habits	5531	97.5
Deliberately keep away from people when you went out	5577	98.3
Well known	5439	95.8

Table2 Individual beliefs and behavioral adoptions of advised measures

Constructs	Count	Percentage (%)
Perceived severity		
The first death caused by COVID-19 announced by the Wuhan Health Committee	353	6.2
“human-to-human” transmission confirmed and announced	2239	39.5
Answered “yes” either of them	2592	45.7
Perceived benefits		
Suspending operation of public transportation	4680	82.5
Mandatory wearing face mask when going out	5340	94.1
Community lock-down	4615	81.3
Ticked all 3 items	4290	75.6
Perceived anxiety		
Feel anxiety during the epidemic of COVID-19	3558	62.7
Action		
Increase the frequency and length of hand wash	5536	97.6
Keep indoor ventilation for more than 2 hours per day	5292	93.3
Maintain good respiratory hygiene habits ^a	4235	93.6
Keep social distance (home isolation and deliberately keep away from people when you went out)	4942	87.1
Wear a mask when you went out ^b	3705	98.5
Adoption all 5 basic protection knowledge ^c	3613	79.9

Note: a: There were 1152 respondents who reported never cough/ sneeze during this period, the denominator of this item was 4523.

b: 1913 respondents never went out since the outbreak occurred, the denominator was 3762.

c: Exclude 1152 respondents who reported never coughed/ sneezed during the period, the denominator was 4523.

Table3 Bivariate logistic regression analysis of individual beliefs in the Chinese public (N=5675)

Factors	Groups	Perceived severity		Perceived benefits		Perceived anxiety	
		Crude OR	95%CI	Crude OR	95%CI	Crude OR	95%CI
Sex	Male	1		1		1	
	Female	1.122*	1.006-1.253	1.304***	1.151-1.478	1.806***	1.614-2.020
Age (year)	≥50	1		1		1	
	18-29	0.478***	0.411-0.555	1.336***	1.136-1.572	1.394***	1.199-1.620
	30-49	0.699***	0.604-0.810	1.840***	1.562-2.167	1.443***	1.244-1.673
Education attainment	Junior and senior high school and below	1		1		1	
	College	0.650***	0.562-0.751	2.086***	1.758-2.475	1.548***	1.336-1.793
	University and above	0.508***	0.446-0.580	1.372***	1.188-1.584	1.653***	1.447-1.887
Occupation	Health professionals	1		1		1	
	Government or public institution staff	0.967	0.821-1.138	0.467***	0.367-0.594	1.105	0.932-1.309
	Factory workers	1.628***	1.296-2.044	0.297***	0.222-0.398	0.639***	0.508-0.804
	Students	0.662***	0.552-0.795	0.293***	0.228-0.376	0.962	0.799-1.159

	Others	1.499 ^{***}	1.245-1.806	0.293 ^{***}	0.227-0.379	0.775 ^{**}	0.640-0.937
Annual household income	Lower	1		1		1	
	Lower middle	0.865	0.733-1.021	1.423 ^{***}	1.175-1.724	1.326 ^{**}	1.120-1.571
	Upper middle	0.752 ^{***}	0.645-0.878	1.304 ^{**}	1.095-1.553	1.303 ^{**}	1.114-1.524
	Upper	0.609 ^{***}	0.518-0.716	1.120	0.936-1.341	1.467 ^{***}	1.245-1.730
Having family member who was health professional	No	1		1		1	
	Yes	0.968	0.868-1.079	2.176 ^{***}	1.895-2.500	1.202 ^{**}	1.073-1.345
Living area at risk level of COVID-19 prevalence	Low	1		1		1	
	High	1.037	0.793-1.356	2.105 ^{***}	1.474-3.005	1.462 [*]	1.097-1.949
	Middle	1.047	0.940-1.168	1.917 ^{***}	1.678-2.188	1.294 ^{***}	1.156-1.448
Do you know all 5 basic protection measures?	No	1		1		1	
	Yes	2.008 ^{***}	1.513-2.665	1.561 ^{**}	1.182-2.061	0.944	0.719-1.238

Note: ^{***}: P<0.001, ^{**}: P<0.01, ^{*}: P<0.05.

Table 4 Influencing factors analysis of Chinese public behavioral adoptions (N=4523)

Factors	Groups	Adoption all 5 advised measures		Bivariate analysis		Adjusting for modifying factors		Adjusting for individual beliefs		Adjusting for all	
		Full adoption n(%)	Partial adoption(%)	Crude OR	95%CI	OR	95%CI	OR	95%CI	OR	95%CI
Modifying factors											
Sex	Male	1249 (77.0)	373 (23.0)	1		1		1			
	Female	2364 (81.5)	537 (18.5)	1.315***	1.133-1.526	1.312**	1.118-1.540	1.303**	1.107-1.534		
Age (year)	≥50	668 (79.4)	173 (20.6)	1		1		1			
	18-29	1254 (76.6)	384 (23.4)	0.846	0.691-1.036	1.229	0.922-1.638	1.198	0.897-1.599		
	30-49	1691 (82.7)	353 (17.3)	1.241*	1.013-1.519	1.114	0.895-1.387	1.068	0.856-1.333		
Education attainment	Junior and senior high school and below	820 (77.9)	232 (22.1)	1		1		1			
	College	1115 (85.4)	190 (14.6)	1.660***	1.343-2.052	1.275	0.986-1.649	1.222	0.942-1.584		
	University and above	1678 (77.5)	488 (22.5)	0.973	0.815-1.161	0.987	0.763-1.277	0.970	0.748-1.257		
Occupation	Health professionals	596 (87.0)	89 (13.0)	1		1		1			
	Government or public	1468 (82.1)	320 (17.9)	0.685**	0.532-0.883	0.788	0.598-1.038	0.829	0.628-1.095		

	institution staff								
	Factory workers	292 (72.6)	110 (27.4)	0.396***	0.290-0.542	0.589**	0.400-0.867	0.618*	0.419-0.913
	Students	613 (70.1)	261 (29.9)	0.351***	0.269-0.457	0.562**	0.383-0.824	0.607*	0.413-0.893
	Others	644 (83.2)	130 (16.8)	0.740*	0.553-0.990	1.054	0.729-1.523	1.116	0.771-1.615
Annual household income	Lower	579 (75.4)	189 (24.6)	1		1		1	
	Lower middle	818 (80.4)	200 (19.6)	1.335*	1.066-1.673	1.220	0.961-1.549	1.209	0.950-1.538
	Upper middle	1226 (81.0)	288 (19.0)	1.390**	1.128-1.712	1.290*	1.031-1.613	1.308*	1.044-1.638
	Upper	990 (80.9)	233 (19.1)	1.387**	1.116-1.724	1.305*	1.026-1.661	1.359*	1.065-1.734
Having family member who was health professional	No	2179 (77.0)	651 (23.0)	1		1		1	
	Yes	1434 (84.7)	259 (15.3)	1.654***	1.411-1.939	1.168	0.954-1.431	1.123	0.915-1.377
Living area at risk level of COVID-19 prevalence	Low	1934 (77.0)	579 (23.0)	1		1		1	
	High	150 (79.4)	39 (20.6)	1.151	0.800-1.658	0.995	0.674-1.469	0.919	0.620-1.363
	Middle	1529 (84.0)	292 (16.0)	1.568***	1.341-1.832	1.140	0.948-1.371	1.121	0.932-1.350
Do you know all 5 basic protection knowledge?	No	73 (34.9)	136 (65.1)	1		1		1	
	Yes	3540 (82.1)	774 (17.9)	8.521***	6.345-11.442	7.194***	5.300-9.765	7.237***	5.313-9.859

Individual beliefs									
Perceived severity	No	1934 (78.8)	521 (21.2)	1		1		1	
	Yes	1679 (81.2)	389 (18.8)	1.163*	1.004-1.346	1.172*	1.011-1.359	1.078	0.921-1.261
Perceived benefits	No	788 (70.5)	330 (29.5)	1		1		1	
	Yes	2825 (83.0)	580 (17.0)	2.040***	1.744-2.385	2.056***	1.757-2.405	1.845***	1.561-2.182
Perceived anxiety	No	1327 (80.6)	319 (19.4)	1		1		1	
	Yes	2286 (79.5)	591 (20.5)	0.930	0.799-1.083	0.905	0.776-1.055	0.840*	0.714-0.989

Note: ***: P<0.001, **: P<0.01, *: P<0.05.