

Supplementary file 2

Regression analysis results of various dimensions of AI literacy among nursing students

Supplementary Table 1 Multiple linear regression analysis of knowledge scores of nursing students ($n=546$)

Factors	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>	95% <i>CI</i>	VIF
Constant	18.005	0.301	——	59.751	<0.001	17.413~18.597	
Gender	-0.141	0.133	-0.046	-1.062	0.289	-0.401~0.120	1.044
Monthly household income (RMB) (<5,000=contrast)							
5,000~10,000	0.103	0.116	0.050	0.888	0.375	-0.124~0.330	1.718
>10,000	0.112	0.123	0.051	0.909	0.364	-0.130~0.354	1.740
Attitude towards AI (positive=contrast)							
Neutral	-0.129	0.097	-0.061	-1.323	0.186	-0.320~0.062	1.171
Negative	0.045	0.128	0.016	0.349	0.727	-0.207~0.296	1.159
Participated in AI-related education/training	-0.072	0.096	-0.033	-0.755	0.451	-0.260~0.116	1.031

Note: $R^2=0.011$, Adjusted $R^2=0.000$; $F=1.016$, $P=0.414$

Supplementary Table 2 Multiple linear regression analysis of skills scores of nursing students ($n=546$)

Factors	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>	95% <i>CI</i>	VIF
Constant	46.285	0.617	——	75.063	<0.001	45.074~47.496	
Gender	-0.493	0.271	-0.077	-1.817	0.070	-1.026~0.040	1.044
Monthly household income (RMB) (<5,000=contrast)							
5,000~10,000	0.067	0.237	0.015	0.281	0.778	-0.398~0.531	1.718
>10,000	0.732	0.252	0.158	2.901	0.004	.236~1.227	1.740
Attitude towards AI (positive=contrast)							
Neutral	-0.313	0.199	-0.070	-1.569	0.117	-0.704~0.079	1.171
Negative	-0.798	0.262	-0.136	-3.047	0.002	-1.313~-0.284	1.159
Participated in AI-related education/training	-0.656	0.196	-0.141	-3.356	<0.001	-1.041~-0.272	1.031

Note: $R^2=0.079$, Adjusted $R^2=0.069$; $F=7.710$, $P<0.001$

Supplementary Table 3 Multiple linear regression analysis of values scores of nursing

students ($n=546$)

Factors	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>	95%<i>CI</i>	VIF
Constant	34.784	0.617	—	56.384	<0.001	33.572~35.996	
Gender	-0.473	0.272	-0.075	-1.741	0.082	-1.006~0.061	1.044
Monthly household income (RMB)							
(<5,000=contrast)							
5,000~10,000	-0.337	0.237	-0.078	-1.423	0.155	-0.802~0.128	1.718
>10,000	0.163	0.252	0.036	0.647	0.518	-0.332~0.659	1.740
Attitude towards AI (positive=contrast)							
Neutral	-0.278	0.199	-0.063	-1.395	0.163	-0.670~0.113	1.171
Negative	-0.793	0.262	-0.136	-3.023	0.003	-1.308~-0.278	1.159
Participated in AI-related education/training	-0.510	0.196	-0.111	-2.603	0.009	-0.894~-0.125	1.031

Note: $R^2=0.054$, Adjusted $R^2=0.043$; $F=5.087$, $P<0.001$

Supplementary Table 4 Multiple linear regression analysis of ethics scores of nursing

students ($n=546$)

Factors	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>	95%<i>CI</i>	VIF
Constant	43.544	0.769	—	56.594	<0.001	42.032~45.055	
Gender	-1.302	0.339	-0.158	-3.845	<0.001	-1.968~-0.637	1.044
Monthly household income (RMB)							
(<5,000=contrast)							
5,000~10,000	0.874	0.295	0.156	2.962	0.003	0.294~1.454	1.718
>10,000	1.206	0.315	0.203	3.831	<0.001	0.588~1.824	1.740
Attitude towards AI (positive=contrast)							
Neutral	-0.610	0.249	-0.106	-2.453	0.014	-1.098~-0.122	1.171
Negative	-1.388	0.327	-0.183	-4.245	<0.001	-2.030~-0.746	1.159
Participated in AI-related education/training	-1.008	0.244	-0.168	-4.129	<0.001	-1.487~-0.528	1.031

Note: $R^2=0.133$, Adjusted $R^2=0.124$; $F=13.834$, $P<0.001$