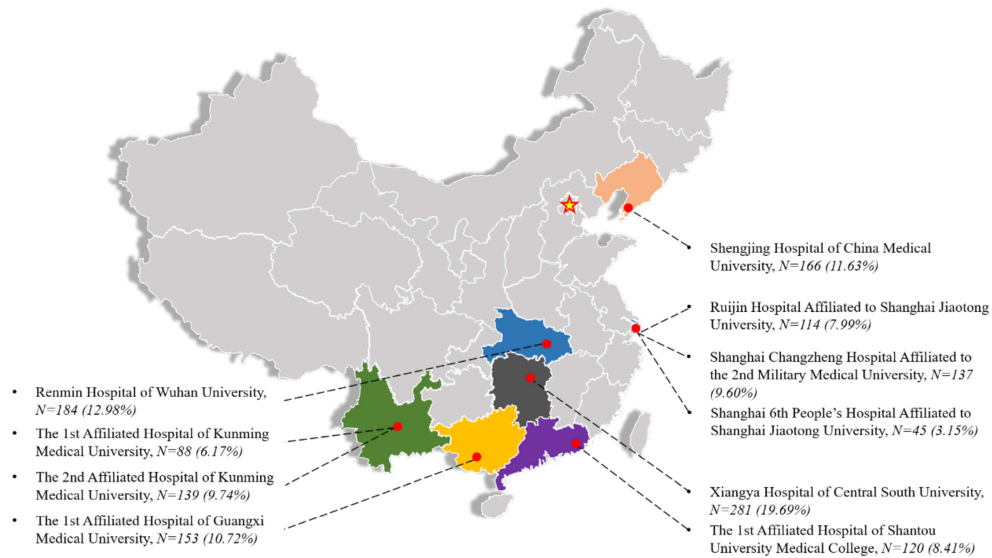


Appendix

Appendix 1 The number of sampled residents by the institution of standardized residency training programs (n=1,414).



Appendix 2. VIF tests after multiple linear regressions in Table 3

Variable	VIF (Model 1)	VIF (Model 2)
Age Group		
24-28		1.65
>28		2.05
Gender (Female)		1.22
Marital Status (Married)		1.24
Annual Income Level		
50-100,000 RMB	1.14	1.36
>100,000 RMB	1.11	1.25
Education		
Master		1.22
Doctor		1.44
Year of training		
2	3.00	3.05
3	3.03	3.31
Specialty		
Surgery	1.43	1.59
Gynecology & Obstetrics, General Medicine and Pediatrics	1.38	1.40
Neurology, Psychiatry, Emergency, and Anesthesiology	1.32	1.33
Others	1.36	1.37
Nightshift interval (≥7 days)	1.04	1.05
Working hours		
45~54 hours/week	1.26	1.27
>54 hours/week	1.28	1.28
Career in Medicine	1.15	1.15
Necessity of Training		
Neutral	2.02	2.06
Necessary	2.20	2.24
Satisfaction with Income		
Neutral	1.24	1.25
Satisfied	1.23	1.24
Job Satisfaction	2.67	2.70
Resilience	2.42	2.44
Burnout	1.39	1.41
Mean VIF	1.71	1.66

Note: VIF, variance inflation factor.

Appendix 3. Modeling High Turnover intention using logistic regressions (n=1,414)

High Turnover Intention	Univariate Logistic Regression Odds Ratio (SE)	Multiple Logistic Regression (Model 3) Odds Ratio (SE)	Multiple Logistic Regression (Model 4) Odds Ratio (SE)
Age Group			
<24	Ref	Ref	Ref
24-28	1.218 (0.166)	1.163 (0.197)	1.173 (0.201)
>28	1.514 (0.290)**	1.621 (0.407)	1.521 (0.401)
Gender			
Male	Ref		Ref
Female	1.052 (0.114)		1.185 (0.164)
Marital Status			
Single/Divorced	Ref		Ref
Married	1.316 (0.194)		1.262 (0.239)
Education			
Bachelor	Ref	Ref	Ref
Master	0.998 (0.12)	0.998 (0.146)	0.935 (0.142)
Doctor	1.696 (0.42)*	1.578 (0.5)	1.41 (0.469)
Annual Income Level			
<50,000 RMB	Ref		Ref
50-100,000 RMB	0.796 (0.102)		1.105 (0.187)
>100,000 RMB	1.67 (0.681)		1.553 (0.844)
Year of training			
1	Ref	Ref	Ref
2	0.925 (0.172)	0.839 (0.175)	0.869 (0.184)
3	0.616 (0.113)**	0.511 (0.109)**	0.538 (0.117)**
Specialty			
Internal Medicine	Ref	Ref	Ref
Surgery	0.695 (0.107)*	0.557 (0.102)**	0.595 (0.116)**
Gynecology & Obstetrics, General Medicine and Pediatrics	0.555 (0.091)***	0.589 (0.112)**	0.579 (0.111)**
Neurology, Psychiatry, Emergency, and Anesthesiology	0.869 (0.149)	0.702 (0.142)	0.712 (0.145)
Others	0.655 (0.104)**	0.54 (0.099)**	0.54 (0.099)**
Nightshift interval			
<7 days	Ref		Ref
≥7 days	0.854 (0.092)		0.913 (0.115)
Working hours			
<45 hours/week	Ref	Ref	Ref
45~54 hours/week	1.154 (0.135)	1.06 (0.147)	1.064 (0.148)
>54 hours/week	1.57 (0.264)**	1.153 (0.227)	1.161 (0.229)
Career in Medicine			
Yes	Ref	Ref	Ref
No	0.411 (0.047)***	0.477 (0.065)***	0.474 (0.065)***
Necessity of Training			
Unnecessary	Ref	Ref	Ref
Neutral	0.89 (0.14)	1.05 (0.193)	1.043 (0.193)
Necessary	0.635 (0.093)**	0.835 (0.149)	0.844 (0.152)
Satisfaction with Income			
Dissatisfied	Ref	Ref	Ref
Neutral	0.578 (0.077)***	0.694 (0.114)*	0.67 (0.114)*
Satisfied	0.322 (0.096)***	0.512 (0.177)	0.453 (0.165)*
Psychological Resilience	1.017 (0.003)***	1.058 (0.006)***	1.058 (0.006)***
Job Satisfaction	1.003 (0.003)	0.996 (0.006)	0.995 (0.007)
Burnout	1.045 (0.004)***	1.063 (0.006)***	1.063 (0.006)***
Pseudo r-squared		0.193	0.196
Chi-square		378.532***	383.036***

Turnover Intention Score was transformed into binary variable: High turnover intention=1 if score >12.

*0.01<p<0.05, **0.001<p<0.01, ***p<0.001

Appendix 4. Model fitness index for the original SEM model and the final model

Fit statistic	χ^2 (P)	df	χ^2/df	CFI	TLI	RMSEA	SRMR	CD	Diagnosis
Recommended value	P>0.05	/	<5.0	≥ 0.90	≥ 0.91	<0.05	<0.08	Δ	
Original SEM Model (Without mediators)	424.128 (<0.001)	9	47.13	0.592	0.139	0.181	0.101	0.211	Not fit
Final SEM Model (Figure. 2)	12.568 (0.128)	8	1.57	0.998	0.993	0.02	0.008	0.705	Fit

Notes: RMSEA, Root mean squared error of approximation; CFI, Comparative fit index; TLI, Tucker-Lewis index; SRMR, Standardized root mean squared residual; CD, Coefficient of determination.

Δ , CD is like R-squared for the whole model, the higher value indicate higher percentage of data can be explained by the model.