

Table1 Demographic characteristics of participants (n=749)

Variables	Classification	n (%)	Mean score (SD)
Age	-	749 (100.00)	20.67 (1.88)
Gender	Male	337 (44.99)	81.18 (7.30)
	Female	412 (55.01)	82.05 (7.64)
Specialty	Clinical medicine	552 (73.70)	81.64 (7.01)
	Medical inspection	49 (6.54)	79.82 (8.49)
	Nurse	148 (19.76)	82.32 (9.59)
Grade	Junior grade (undergraduate)	433 (57.81)	82.03 (7.67)
	Senior grade (undergraduate)	273 (36.45)	81.47 (7.17)
	Postgraduate	43 (5.74)	79.05 (6.67)
Practice experience	Yes	272 (36.32)	81.13 (7.92)
	No	477 (63.68)	81.96 (7.18)
Total	-	-	81.66 (7.46)

Table 2 Item-total score correlation and principal component analysis of the Jefferson scale of empathy

Item ⁺	FL Hojat	Factor			Item-total score correlation ⁺⁺
		1	2	3	
Item 1 Physicians' understanding of their patients' feelings and the feelings of their patients' families is a positive treatment factor	0.43 ^b		0.76		0.38
Item 2 Patients feel better when their physicians understand their feelings	0.50 ^a	0.77			0.46
Item 3 It is difficult for a physician to view things from patient' perspectives	0.74 ^c			0.85	0.54
Item 4 Understanding body language is as important as verbal communication in the physician–patient relationship	0.48 ^a	0.44			0.72
Item 5 physician's sense of humor contributes to a better clinical outcome	0.45 ^a	0.73			0.52
Item 6 Because people are different, it is difficult to see things from patients' perspectives	0.66 ^c			0.84	0.42
Item 7 Attention to patients' emotions is not important in history taking	0.55 ^b		0.59		0.65
Item 8 For more effective treatment, physicians must be attentive to their patients' personal experiences	0.59 ^b		0.67		0.42
Item 9 Physicians should try to stand in their patients' shoes when providing care	0.46 ^a	0.46			0.72

for them

Item 10 Patients value a physician's understanding of their feelings, which is therapeutic in its own right	0.58 ^a	0.43	0.58
Item 11 Patients' illnesses can be cured only by medical or surgical treatment, therefore, physicians' emotional ties with their patients do not have a significant influence in medical or surgical treatment	0.60 ^b	0.44	0.52
Item 12 Asking patients about what is happening in their personal lives is not helpful in understanding their physical complaints	0.37 ^b	0.72	0.67
Item 13 Physicians should try to understand what is going on in their patient's minds by paying attention to their non-verbal cues and body language	0.62 ^a	0.82	0.56
Item 14 Emotion has no place in the treatment of medical illness	0.50 ^b	0.80	0.55
Item 15 Empathy is a therapeutic skill without which the physician's success is limited	0.58 ^a	0.80	0.76
Item 16 Physicians' understanding of the emotional status of their patients, as well as that of their families is one important component of the physician-patient	0.70 ^a	0.76	0.54

relationship

Item 17 Physicians should try to think like their patients in order to render better care	0.46 ^a	0.74			0.70
Item 18 It is acceptable for a physician to be touched by intense emotional relationships between patients and their families	0.44 ^b			0.66	0.55
Item 19 I do not enjoy reading nonmedical literature or experiencing the arts	0.37 ^b		0.70		0.66
Item 20 I believe that empathy is an important therapeutic factor in medical treatment	0.60 ^a	0.95			0.58
Eigenvalue	-	7.97	2.05	1.20	-
%Variance	-	39.82	10.26	6.01	-

Notes: * Principal component factor extraction with oblique rotation was used, ** there are partial correlations between score of each item and total score, Values greater than |0.40| were shown; ^a represents the item belongs to factor 1 in research conducted by Hojat (Mohammadreza, et al., 2002), ^b represents the item belongs to factor 2 in in research conducted by Hojat (Mohammadreza, et al., 2002), ^c represents the item belongs to factor 3 in research conducted by Hojat (Mohammadreza, et al., 2002).

Table 3 Comparison of factor structures between the original model and the proposed model

Original model (20 items)		Proposed model (20 items)	
component	item	component	item
Perspective taking (PT)	2,4,5,9,10,13,15,16,17,2 0	Perspective taking (PT)	2,4,5,9,10,13,15,16,17,2 0
Compassionate care (CC)	1,7,8,11,12,14,18,19	Compassionate care (CC)	1,7,8,12,14,18,19
Standing on patients' shoes (SPS)	3,6	Emotional Detachment (ED)	3,6,18

Notes: Original model was a model reported by Hojat et al (Mohammadreza, et al., 2002).

Table 4 Model fit indices for the different models of the JSE-S (Chinese version)

Model	Original model (20 items)	Proposed model 1 (20 items)
χ^2	492.41	411.93
χ^2/df	2.95	2.48
CFI	0.91	0.93
IFI	0.91	0.93
GFI	0.88	0.90
TLI	0.89	0.92
RMSEA	0.072	0.063

Notes: Original model represents three-factors model put forward by Hojat (Mohammadreza, et al., 2002); CFI, comparative fit index; IFI, incremental fit index; GFI, goodness-of-fit index; TLI, Tucker-Lewis index; RMSEA, root mean square error for approximation.