

Longitudinal relationships between motivation and empathy among medical students during clinical years



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Background and aim of the study

Previous studies found that medical students with higher empathy reported higher interest in people oriented medical specialties, and that psychosocial values including being empathic, patient-centred and sensitive to patients' psychosocial needs correlated with internal motivations for becoming a doctor. However, the relationship between different sources of motivation (i.e., internal or external) to pursue a medical career and empathy among medical students remains partially unclear and the mutual longitudinal effects between these constructs in the context of medical studies are yet to be tested.

Summary of work

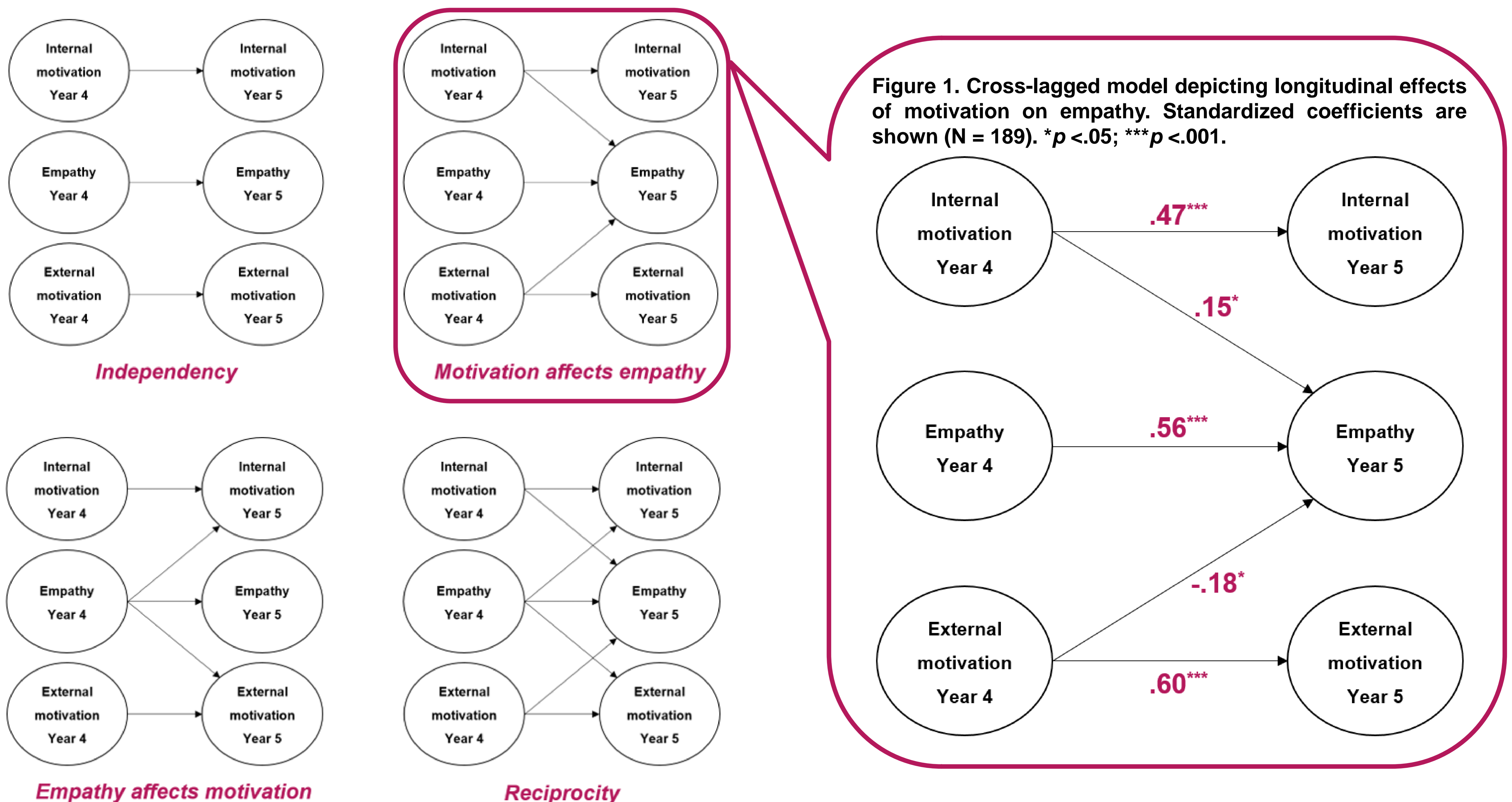
Longitudinal cross-lagged modeling tested four different hypotheses on the reciprocal relations between internal and external motivations for becoming doctors on one hand and empathy on the other hand: *independency*, *motivation affects empathy*, *empathy affects motivation*, and *reciprocity*. Participants were 189 medical students ($M_{age}=24.51$ years, $SD=2.15$, 56% females) from Geneva Medical School. Measures included internal (e.g., care for patients, save lives) and external (e.g., future earning potential, prestige) motivations to become doctors and the student's version of the Jefferson Scale of Empathy. Covariates included age and gender. Baseline and follow-up data collections took place respectively at the beginning (4th study year) and end (5th study year) of the clinical training in the medical school.

Results

Table 1. Results of nested model comparisons between the four hypotheses (N=189)

Models	χ^2	df	p	RMSEA	CFI	TLI	Model comparison	ΔCFI	$\Delta\chi^2$	Δdf	p(d)
Independence	10.926	6	.091	.066	.968	.905					
Empathy → Motivation	8.500	4	.075	.077	.971	.870	vs. Independence	.003	2.426	2	.297
Motivation → Empathy	3.302	4	.509	.000	1.000	1.020	vs. Independence	.030	7.624	2	.022
Reciprocity	1.154	2	.562	.000	1.000	1.049	vs. Empathy → Motivation	.032	7.346	2	.025
							vs. Motivation → Empathy	-	2.148	2	.342

RMSEA: Root Mean Square Error of Approximation; CFI: Comparative Fit Index; TLI: Tucker–Lewis Index; ΔCFI = difference in Comparative Fit Index; $\Delta\chi^2$ = difference in likelihood ratio tests; Δdf = difference in df; p(d) = probability of the difference texts.



Discussion and conclusions

Our analyses support the hypothesis according to which internal and external motivations for becoming doctors can positively or negatively affect the development of empathy among medical school students during their clinical years. Conversely, self-reported levels of empathy do not explain students' motivations to become doctors. This is true for both genders. Empathy development among students wishing to pursue a medical career is modulated by individual differences in motivation.

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