

Mindfulness and Empathy in medical doctor students. An Italian study.

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EMPATHY AND PATIENT CENTREDNESS

A well known aspect of Medical Education is the change of medical students' empathy and caring attitude during internship experience (Williams et al., 2014; Mostafa et al., 2014) and gender differences, females being more empathetic than males (Chen et al., 2012; Hasan et al., 2013; Mostafa et al., 2014).

MINDFULNESS

Mindfulness – the **quality of being fully present and attentive in the moment** – facilitates a variety of well-being outcomes for healthcare professionals (Beckman et al., 2012).

Being Mindful for the medical students means to **understand the patients** not only as "objects of care" but as unique and fellow humans by the ongoing **awareness** of patients' and doctor's own emotions, intentions and reactions all over the clinical encounter and after (Krasner et al., 2009). Structured programs of mindfulness training seems to improve psychosocial orientation and empathy among medical students (Beach et al., 2013) but few is known about the **natural development of mindfulness during the medical education** and its link with the different facet of the medical attitude.

GOAL

This cross-sectional study was designed to **a)** compare our Italian students FFMQ profile with the normative Italian sample; **b)** compare 1st year medicine students and 5th year students (after two years and a half of ward experience) profile **c)** evaluate the relationship between the FFMQ and the empathy profile of IRI

METHOD

A sample of 543 first year medical students and 194 fifth year medical students of the Milano-Bicocca School of Medicine completed the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2008) and the Interpersonal Reactivity Index (IRI; Davis, 1980)

IRI

- **Perspective Taking:** the tendency to spontaneously adopt the psychological point of view of others
- **Fantasy:** taps respondents' tendencies to transpose themselves imaginatively into the feelings and actions of fictitious characters in books, movies, and plays
- **Empathic Concern:** assesses "other-oriented" feelings of sympathy and concern for unfortunate others
- **Personal Distress:** measures "self-oriented" feelings of personal anxiety and unease in tense interpersonal settings

FFMQ

- **Observing:** noticing or attending to internal and external experiences.
- **Describing:** labelling internal experiences with words.
- **Acting with Awareness:** attending to one's activities of the moment
- **Nonjudging of inner experience:** taking a nonevaluative stance toward thoughts and feelings
- **Nonreactivity to inner experience:** allowing thoughts and feelings to come and go, without getting caught up in or carried away by them

Statistical analysis

Through the use of predictive analytics software SPSS 22 it was performed a) an analysis of variance (ANOVA) to test the statistical significance of the difference between the average scores obtained at FFMQ by medical students and normative Italian sample; b) an analysis of variance (ANOVA) to check whether there were statistically significant differences in mean scores on FFMQ scales by students in two different academic years; c) Finally regression analysis were performed to investigate the association between the five scales of FFMQ and IRI scales.

Discussion

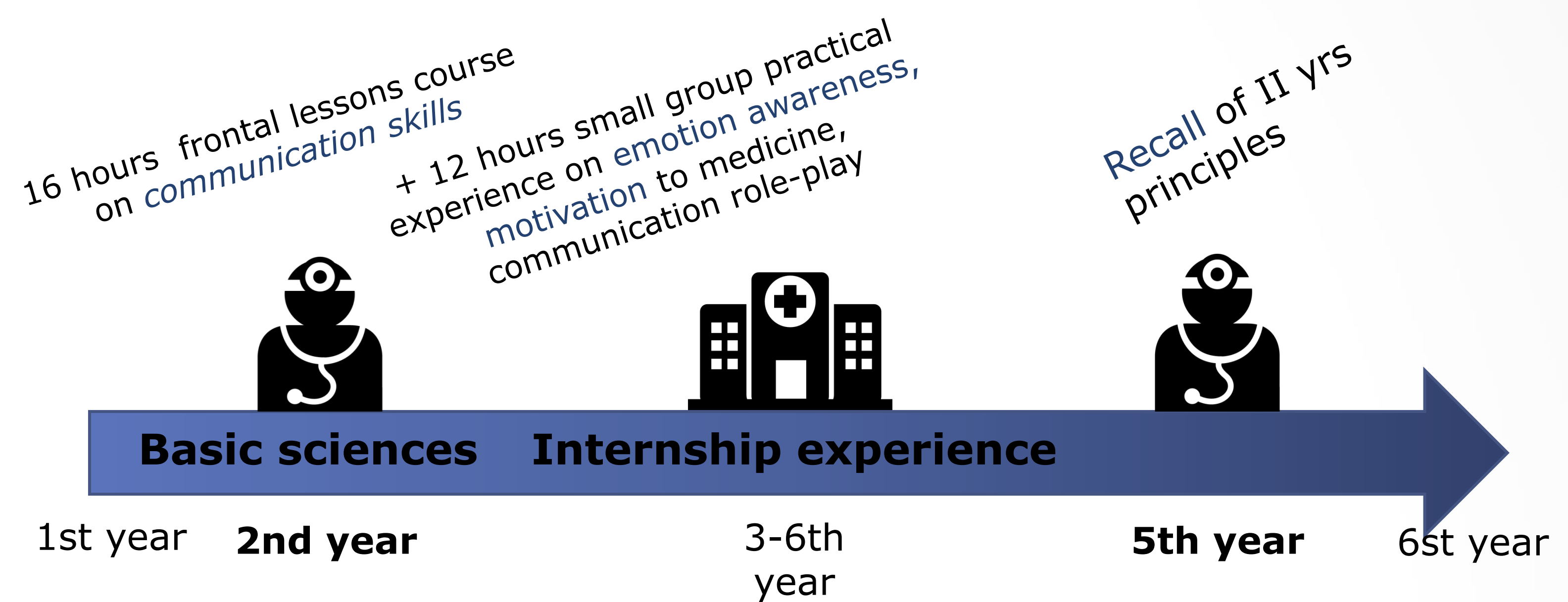
Medical doctor students have a different mindfulness profile from other university students; the relation between mindfulness and empathy is confirmed; the hospital internship seems to have no impact on empathy and mindfulness level, partially because the training has a great focus on communication and human relationship. Many open questions concern Mindfulness research on medical students: **(a)** the possible link with academic performance; **(b)** the connection with positive attitudes in the clinical practice (e.g. patient-doctor communication); **(c)** the role as a protective factor against burnout before and after the medical course.

The term "patient-centered care" refers to actions in service of patient-centeredness, including interpersonal behaviors, technical interventions and health systems innovations (Epstein et al., 2005).

Patient-centeredness describes a global attitude with three core values: **patients' needs, wants, perspectives**. Taking into account individual experiences guarantee the patients to participate in their care enhancing their partnership.

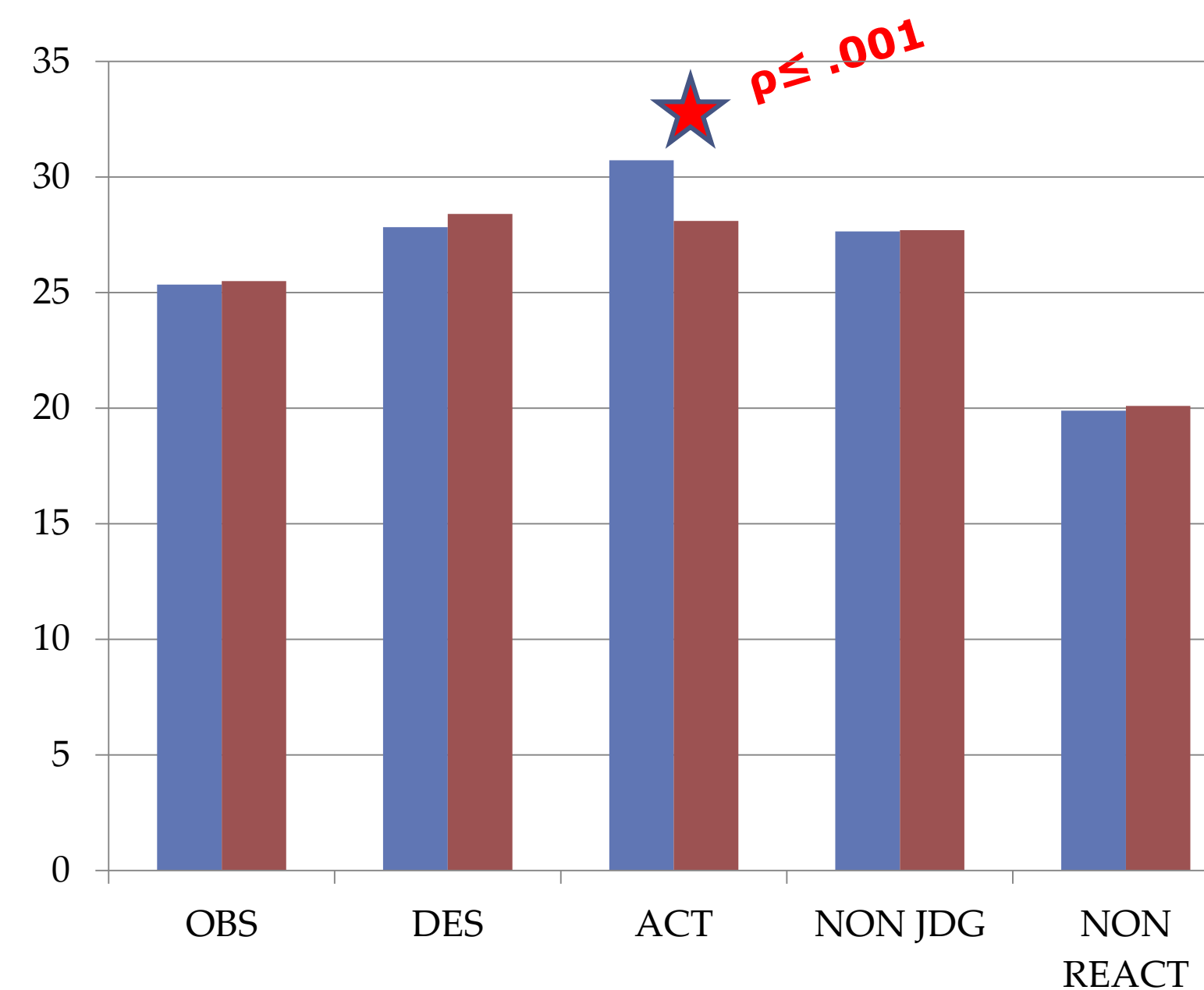
Patient-centeredness implies adequate levels of empathy, cognitive and affective (Hojat et al., 2002), non judging attitude, emotion regulation, the ability not to act impulsively and a general awareness of own and others emotions, motivations and concerns. Last but not least good communications skills are required.

Medical Education at Milano-Bicocca



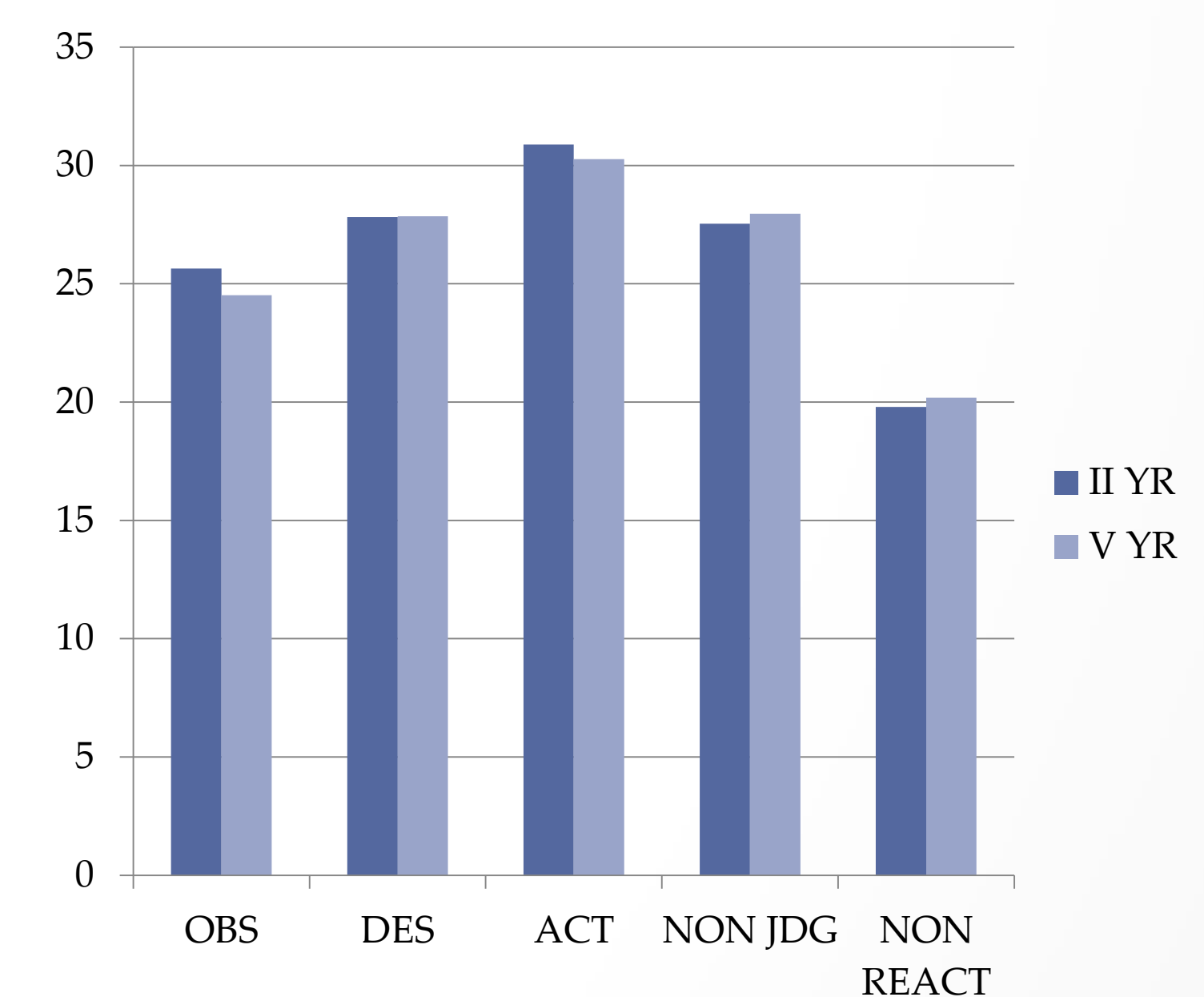
RESULTS

(a) Profile



Medical students **act with more awareness** than other university students

(b) Cross-sectional



No change of medical students' mindfulness after internship experience

(c) Mindfulness and Empathy

MODEL	OBS		DES		ACT		NON JDG		NON REACT			
	%R ²	F	B	p	B	p	B	p	B	p		
FS	17.0	18.99	.278	<.001	.139	<.01	-.185	<.001	-.029	n.s.	-.249	<.001
EC	12.4	13.49	.125	<.001	.087	<.01	.045	n.s.	-.054	n.s.	-.152	<.001
PT	10.0	10.72	.163	<.001	.033	n.s.	.105	<.01	-.001	n.s.	.134	<.01
PD	21.3	24.93	-.009	n.s.	-.103	<.01	-.161	<.001	-.049	n.s.	-.264	<.001

Mindfulness facets are differently associated with medical students' empathy

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