

Empathy in Osteopathic Medical Students: Is it All in the Hands?



Kyle K. Henderson, Ph.D.
Chicago College of Osteopathic Medicine
September 17-20, 2016



Osteopathic
International
Alliance



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Gueten Abig Guete Daag



G'Day mate!



boa tarde



buon pomeriggio



Добрый день



Goede middag



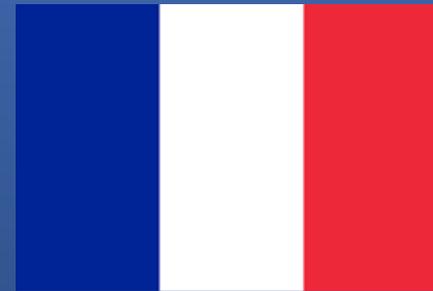
buenas tardes



guten Nachmittag



god eftermiddag



bonjour

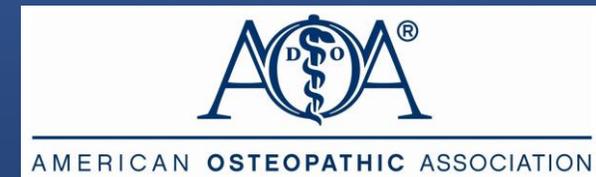


Kia ora

Tena koutou



Good Afternoon



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What is Empathy...Clinical Empathy?



How does it differ from Sympathy?

Clinical Empathy:

Emotive:

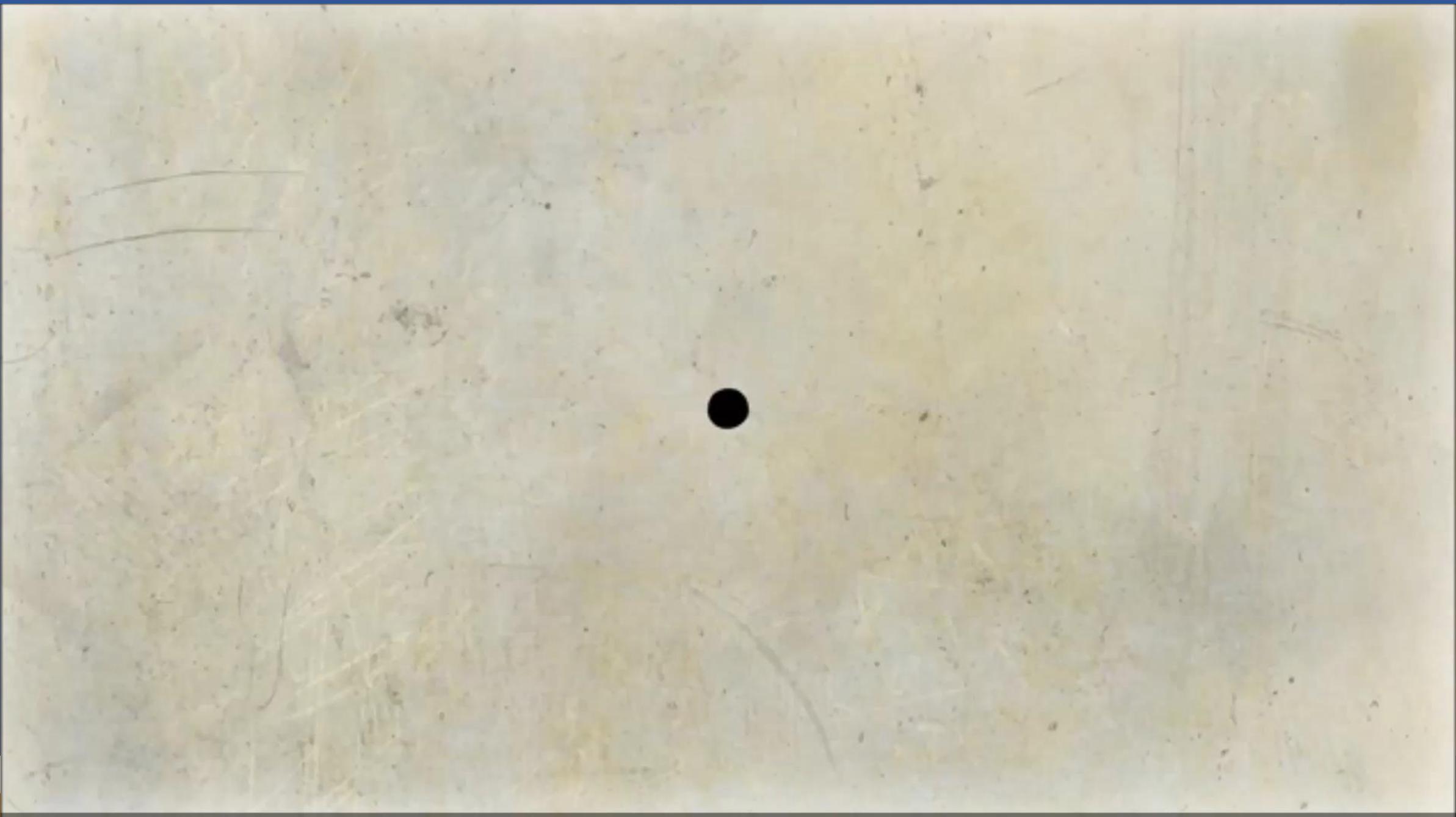
Cognitive:

Behavioral:



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Clinical Sympathy:



Clinical Empathy and Relationships?



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Clinical Empathy and Medical Outcome?

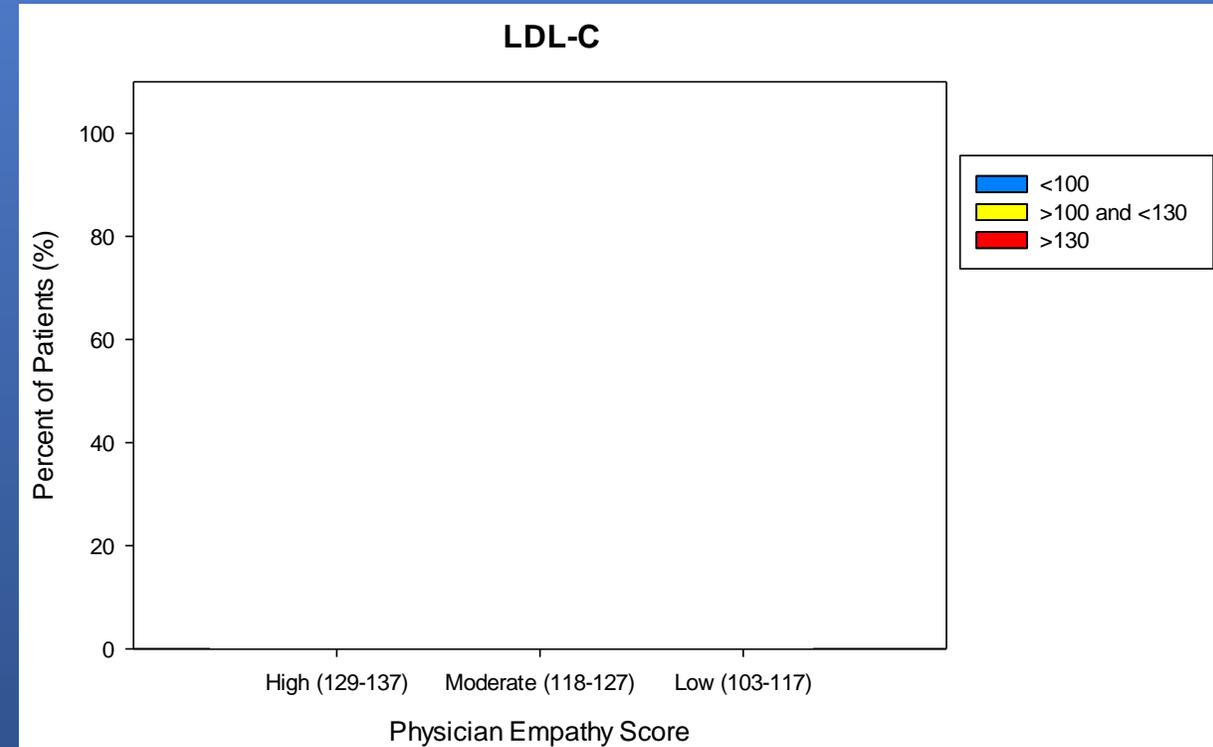
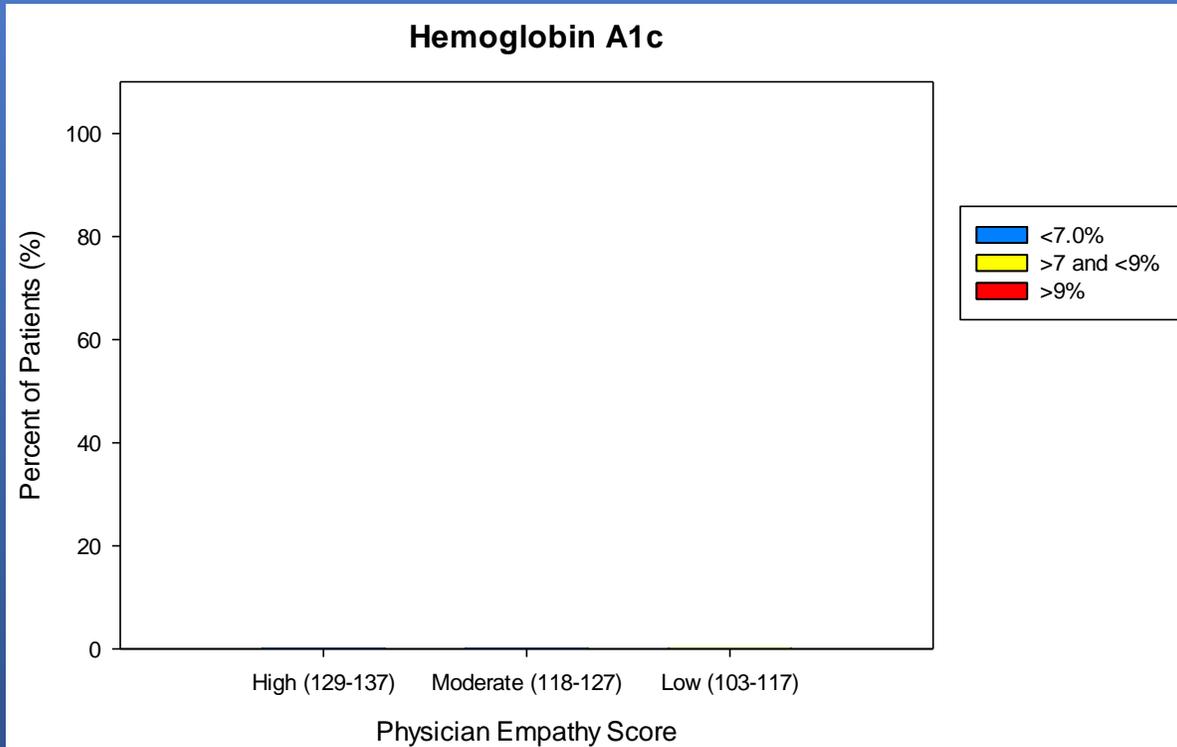


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891 Diabetic Patients (July 2006-June 2009)

Hemoglobin A1c and LDL-C Levels

Sorted by Physician Empathy



Findings are significant after controlling for physicians' and patients' gender, age, and health insurance.

Hojat et al, 2011



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Does Medical School Encourage Empathy?

Likened to “battered child syndrome”,
dehumanization and traumatic de-idealization.

The emphasis on emotional detachment, clinical neutrality, and lack of role models may contribute to 75% of medical students feeling more cynical about academics and their profession. (Hojat et al. 2004).



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Does Medical School Reduce Empathy?

J Med Educ. 1981 Dec;56(12):1004-10.

An analysis of empathy in medical students before and following clinical experience.

Diseker RA, Michielutte R.

Abstract

The nature and direction of changes in **empathy** as measured by Hogan's **empathy** scale was explored over time (1975, 1976, and 1979) for **medical students** in the class of 1979 at the Bowman Gray School of Medicine. Results indicated that **empathy** scores declined slightly over time, correlated negatively with **Medical** College Admission Test scores, and were unrelated to academic performance or performance on Part I or Part II examinations of the National Board of **Medical** Examiners.

PMID: 7310834

In 2002, the Jefferson Scale of Empathy was developed by Hojat et al.
20 questions, 7pt Likert scale, Score range (20-140)
Facilitates standardized assessment of empathy levels



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A Cross-sectional Measurement of Medical Student Empathy

Daniel Chen, MD¹, Robert Lew, PhD^{2,3}, Warren Hershman, MD, MPH¹,
and Jay Orlander, MD, MPH^{1,4}

¹Section of General Internal Medicine, Evans Department of Medicine, Boston University School of Medicine, Boston, MA, USA; ²Department of Biostatistics, Boston University School of Public Health, Boston, MA, USA; ³MAVERIC, VA Boston Healthcare System, Boston, MA, USA; ⁴Medical Service, VA Boston Healthcare System, Boston, MA, USA.

BACKGROUND: Empathy is important in the physician-patient relationship. Prior studies have suggested that physician empathy may decline with clinical training.

KEY WORDS: empathy; medical student education; physician attitudes.
J Gen Intern Med 22(10):1434-8
DOI 10.1007/s11606-007-0298-x
© Society of General Internal Medicine 2007

Table 3. JSPE-S Scores by Medical School Class

Class	JSPE-S score	Standard error
Incoming	115.5 ^A	1.8
First-year	118.5 ^B	1.8
Second-year	118.2 ^B	1.8
Third-year	112.7 ^{A,C}	1.9
Fourth-year	106.6 ^C	2.3

The class was adjusted for gender, age, anticipated financial indebtedness, career preference, and gender-class interaction.

Groups that share the same superscript are not significantly different from one another. All other differences in JSPE-S scores are significant at the $P < .05$ level.



The Devil is in the Third Year: A Longitudinal Study of Erosion of Empathy in Medical School

Mohammadreza Hojat, PhD,
George Brainard, PhD, S
Jon Veloski, MS, and Jos

Table 2

Changes in Mean Empathy Scores During Four Years in Medical School of 456 Matriculants of Jefferson Medical College in 2002 and 2004, Philadelphia, Pennsylvania

Year	Matriculants of 2002			Matriculants of 2004			All participants		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
0 (orientation day)	227	114.5	10.0	229	115.8	10.0	456	115.1	10.0
End of year 1	198	114.9	10.9	201	116.2	116.2	399	115.5	11.1
End of year 2	208	115.2	11.4	167	115.0	115.0	375	115.1	11.0
End of year 3	154	108.5	11.4	185	109.6	109.6	339	109.1	11.8
End of year 4	178	109.6	13.2	178	108.5	108.5	356	109.1	14.1

* Total number of students varies in different years as a result of their voluntary participation.

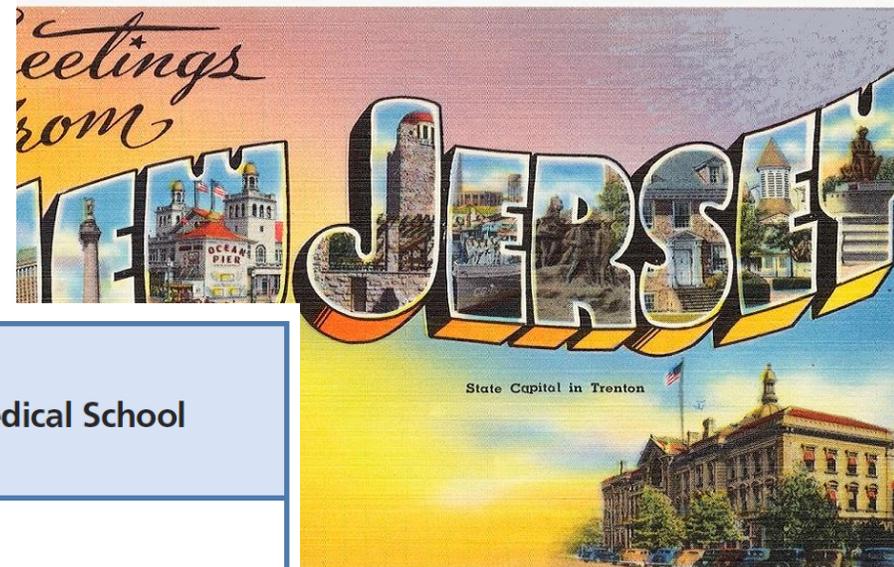
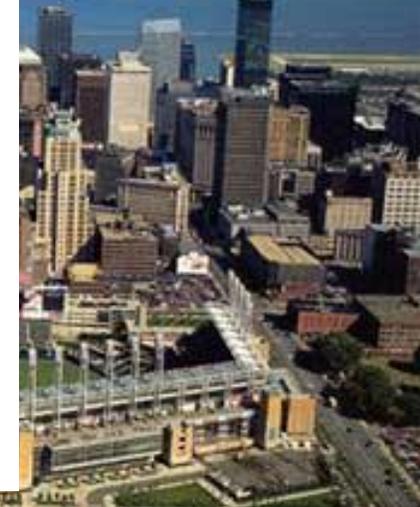


Table 4.
Mean Jefferson Scale of Physician Empathy–Student Version (JSPE-S) Scores by Year in Medical School for Osteopathic and Allopathic Medical Students (N=405)^a

Year	Osteopathic ^a		Allopathic ^b		Statistic	P Value	Cohen's d
	No.	Mean Score (SD)	No.	Mean Score (SD)			
First	127	108.6 (15.0)	399	115.5 (10.0)	$t_{163}=4.83$	<.0001	0.52
Second	105	111.2 (12.6)	375	115.1 (11.1)	$t_{478}=3.11$	<.002	0.28
Third	88	109.4 (10.8)	339	109.1 (11.8)	$t_{425}=0.24$.81	0.02
Fourth	85	107.0 (15.2)	356	109.1 (14.1)	$t_{439}=1.23$.22	0.12

^a The 405 osteopathic medical students attended the University of Medicine and Dentistry of New Jersey-School of Osteopathic Medicine in Stratford.

^b The means and standard deviations (SDs) for the JSPE-S scores were reported by Hojat et al⁶ for 1469 allopathic medical students who attended the Jefferson Medical School of Thomas Jefferson University in Philadelphia, Pennsylvania.



Correlates and Attitudes Toward in Osteopathic

Leonard H. Calabrese, D
and Mohammadreza Hoja

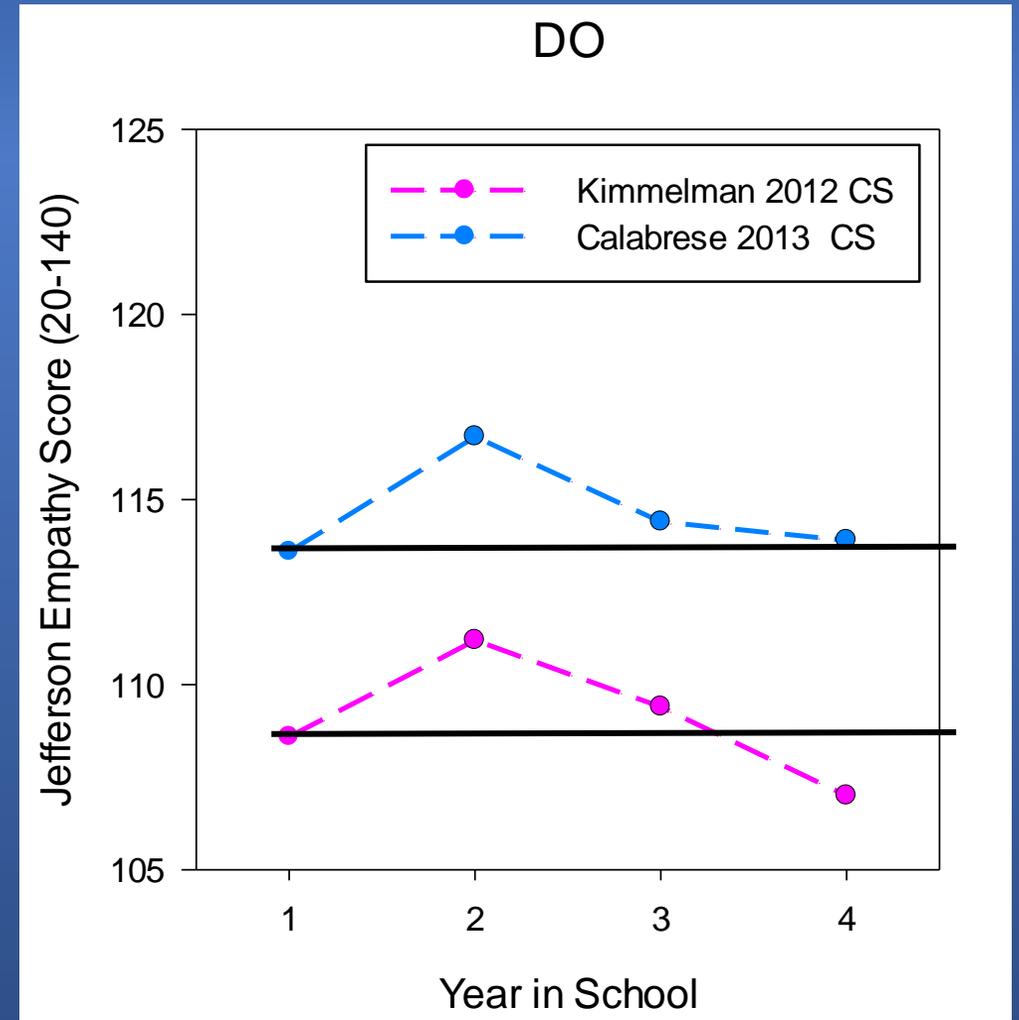
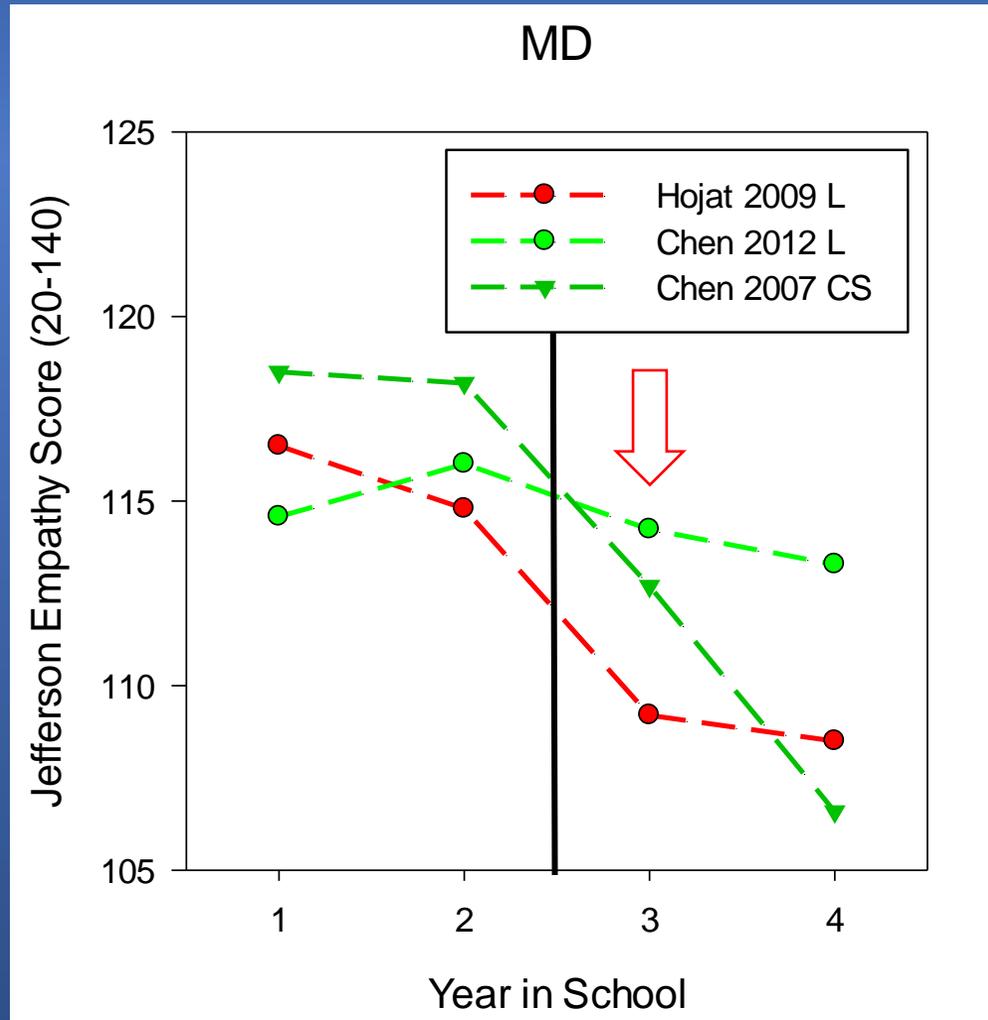
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David Massello, BA;

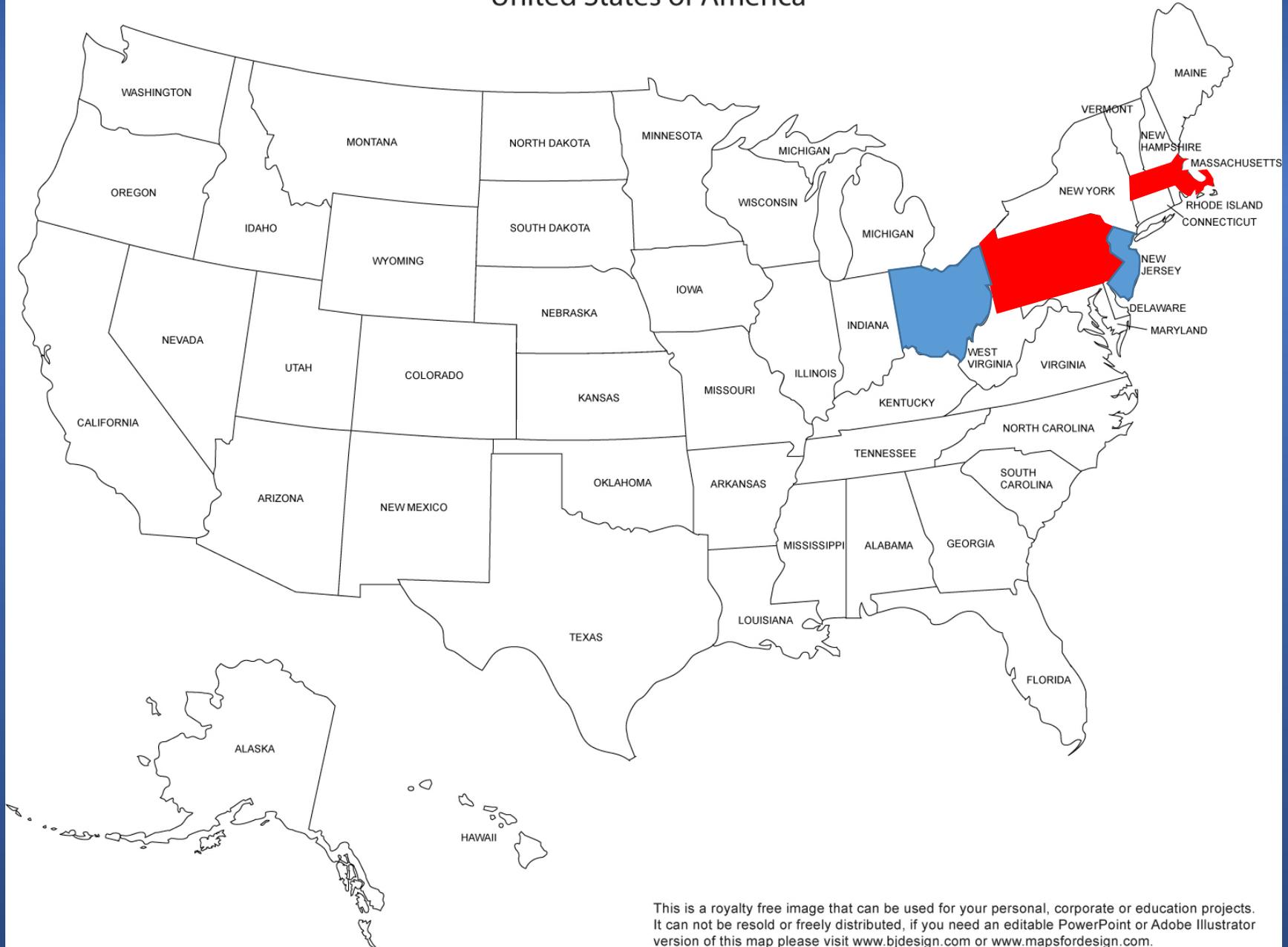
Table 2.
Scores on the JSE and the JSAPNC by Sex, Specialty Interest, and Class Year for 373 Osteopathic Medical Students During the 2011-2012 Academic Year

Groups	n	Score, ^a mean (SD)	
		JSE	JSAPNC
Sex^b			
Men	197	111.9 (11.0)	48.7 (5.6)
Women	176	117.1 (11.4)	50.1 (5.0)
Specialty Interest^c			
People oriented	150	115.8 (10.7)	49.9 (5.5)
Technology/procedure oriented	170	114.1 (12.1)	49.0 (5.1)
Other	53	113.3 (12.0)	49.9 (5.7)
Class Year^d			
First	109	113.6 (11.7)	50.2 (4.8)
Second	94	116.7 (12.2)	50.7 (4.8)
Third	101	114.4 (11.2)	48.5 (5.7)
Fourth	69	113.9 (10.5)	48.2 (5.8)

Allopathic vs. Osteopathic Medical School Empathy Levels:



United States of America



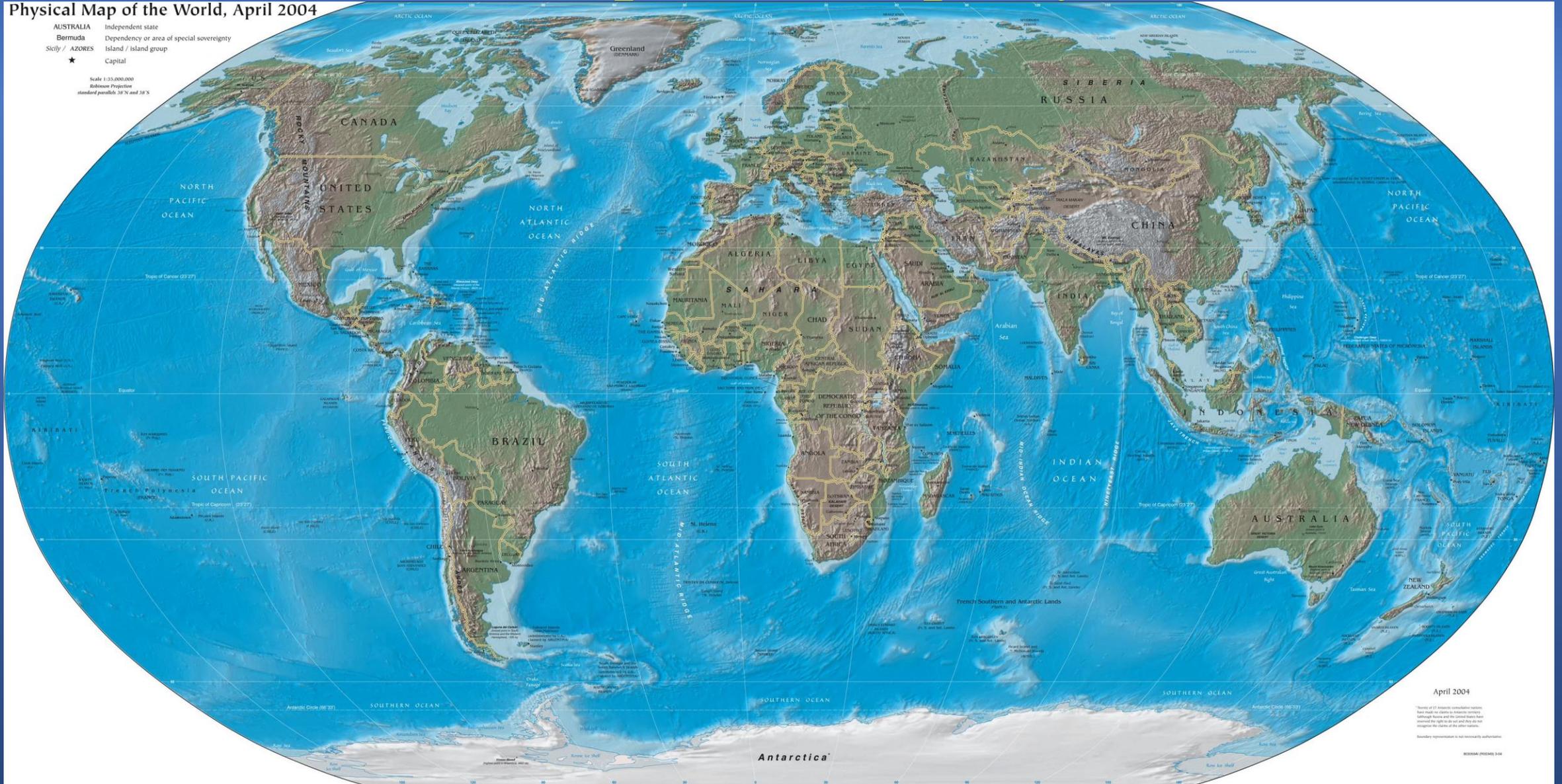
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Global Osteopathic Empathy Levels?

Physical Map of the World, April 2004

AUSTRALIA Independent state
Bermuda Dependency or area of special sovereignty
St. Peter / AZORES Island / island group
★ Capital

Scale 1:35,000,000
Robinson Projection
standard parallels 38° N and 38° S



April 2004
"Many of the names and symbols have been changed to reflect current usage. Although names and symbols have been changed, the right to use and they do not constitute the names of the other nations.
Boundary representation is not necessarily authoritative.

Antarctica

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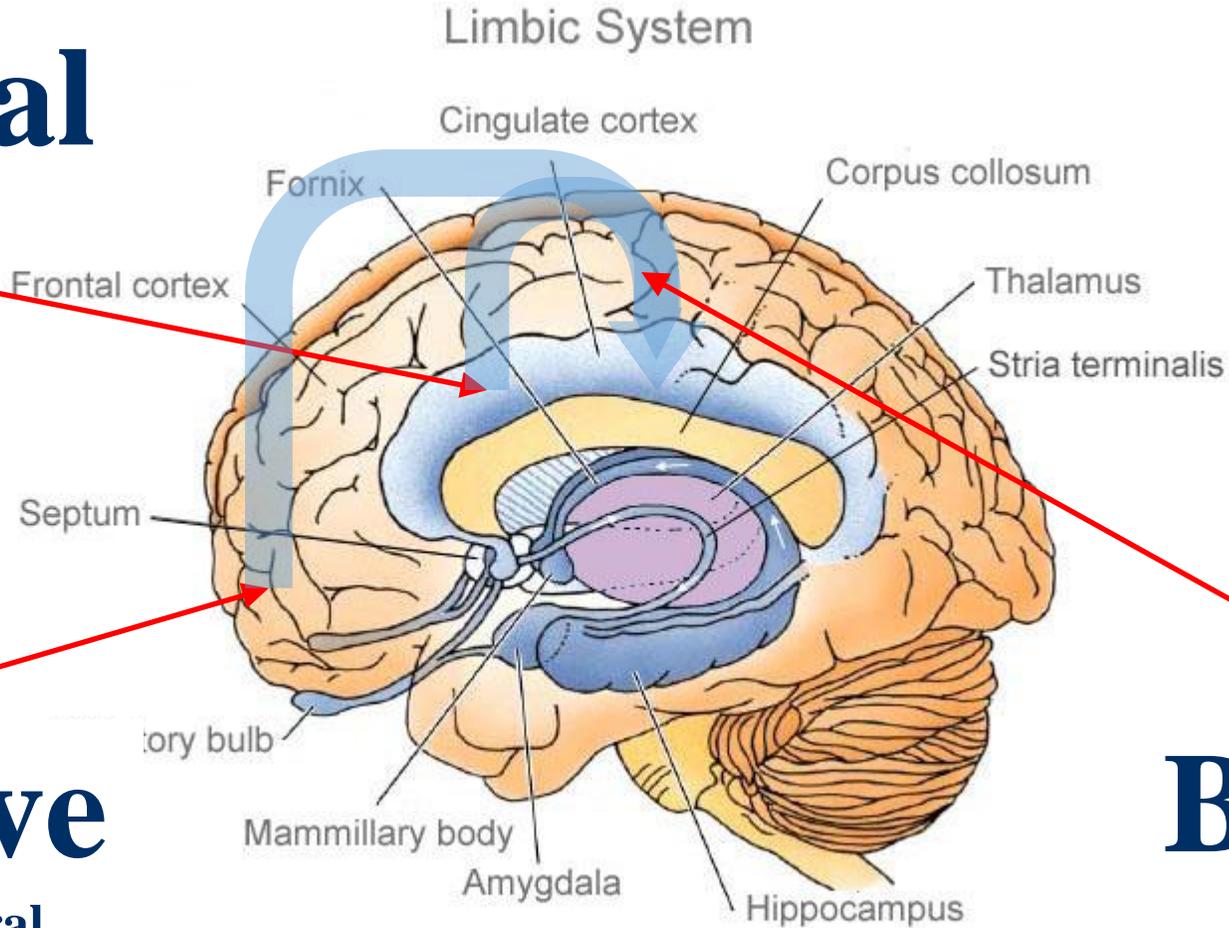


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Components of Empathy

Emotional

frontal-parietal



Cognitive

prefrontal-temporal

Behavior

Motor

Hypothesis: Is Empathy in OMM and Our Hands?

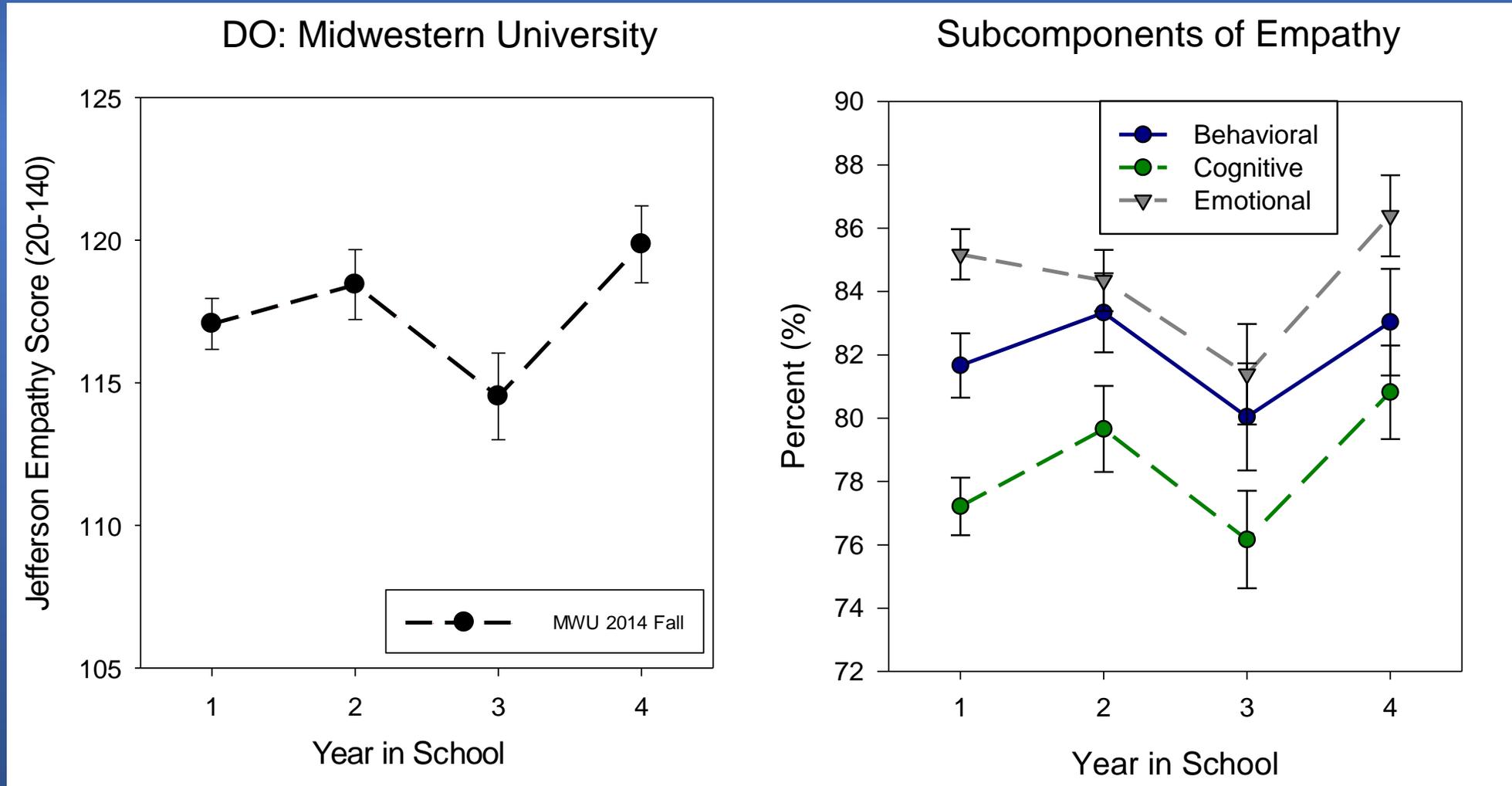


Communication, “Hands-on” training, feed-back, collaborative treatment, alleviation of pain...



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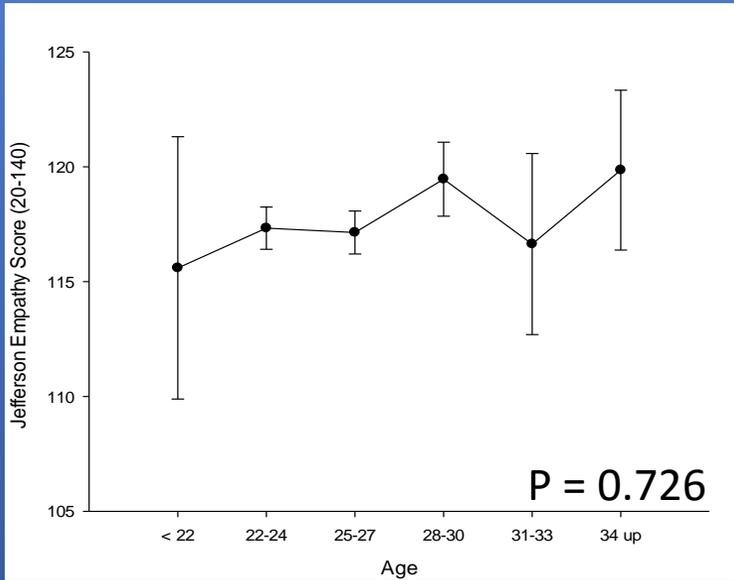
Preliminary cross-sectional data from CCOM



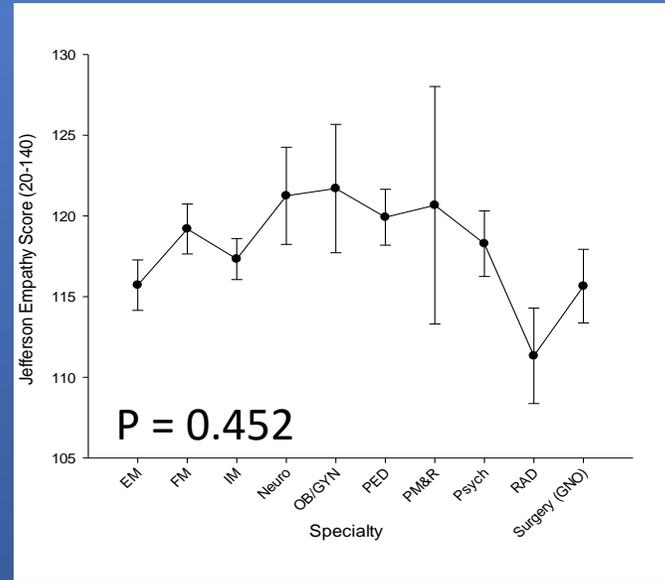
JSE, anonymous, voluntary, *Fall Semester, 256 students (Class Year 1-4: N's = 115, 61, 38, 42; respectively). Third year data were not significantly lower...



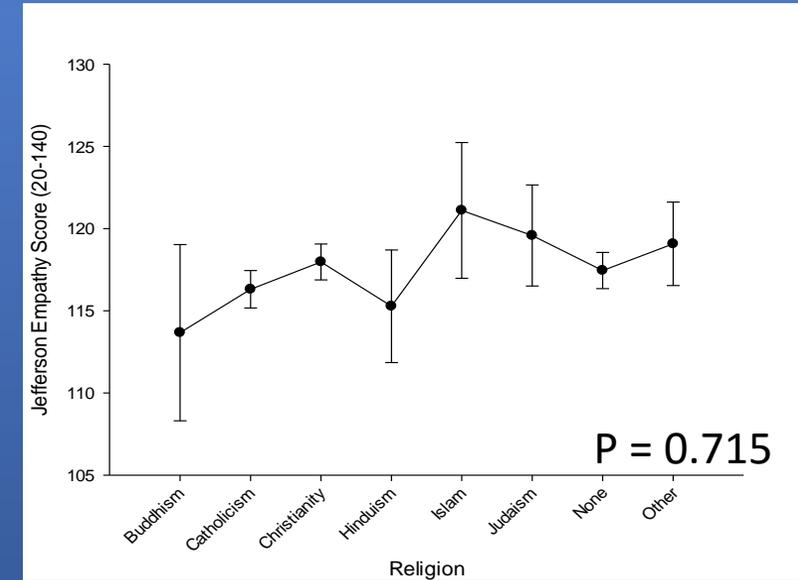
Empathy Scores are Not Influenced by Age, Specialty, or Ethnicity



Age



Specialty

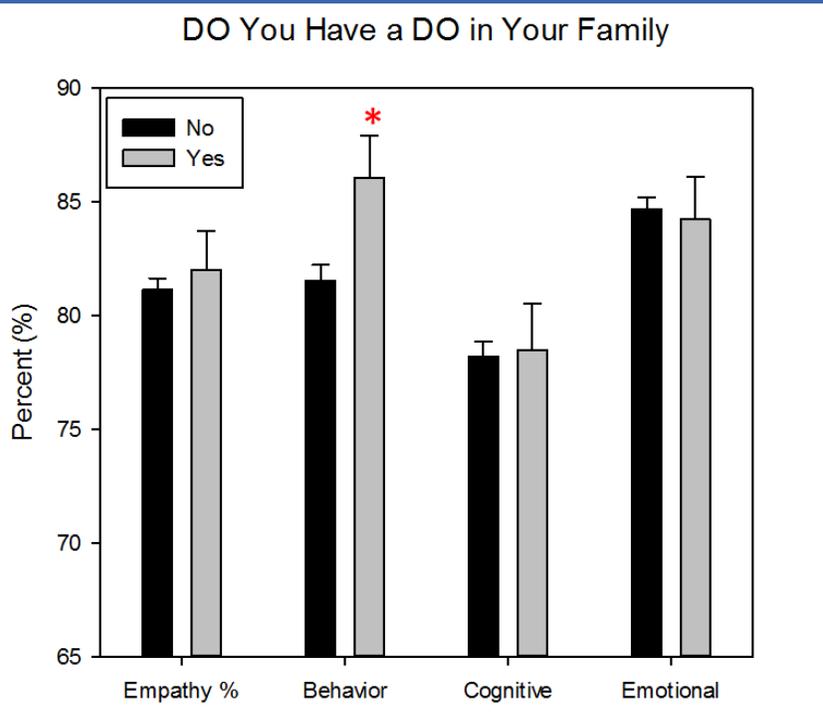


Religion

*Females scored higher than males in empathy as well as empathy subcomponents.
Empathy scores by specialty were NS; students (N = 3; 2F, 1M) pursuing radiology scored the lowest.

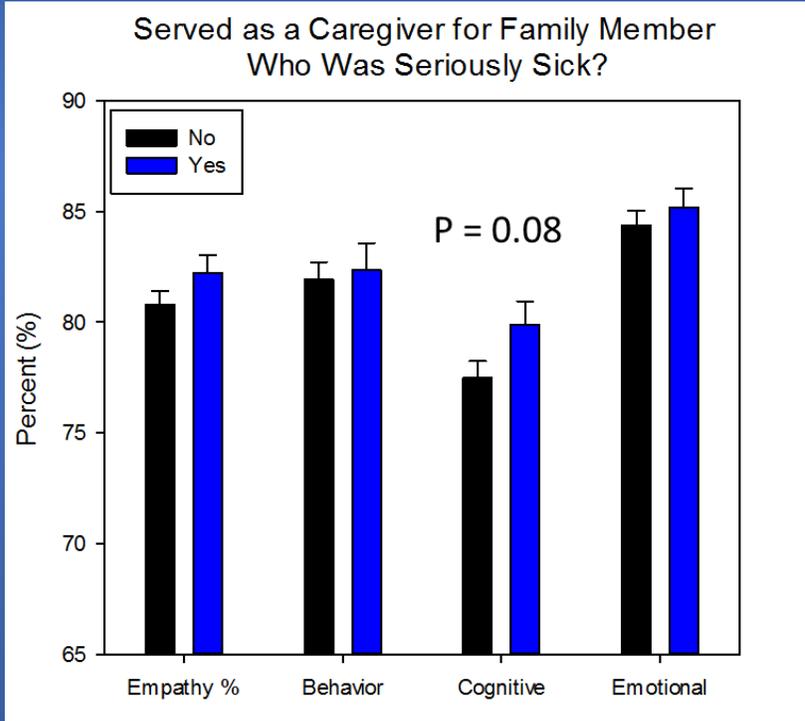


Empathy and Subcomponents vs. Interest in OMM

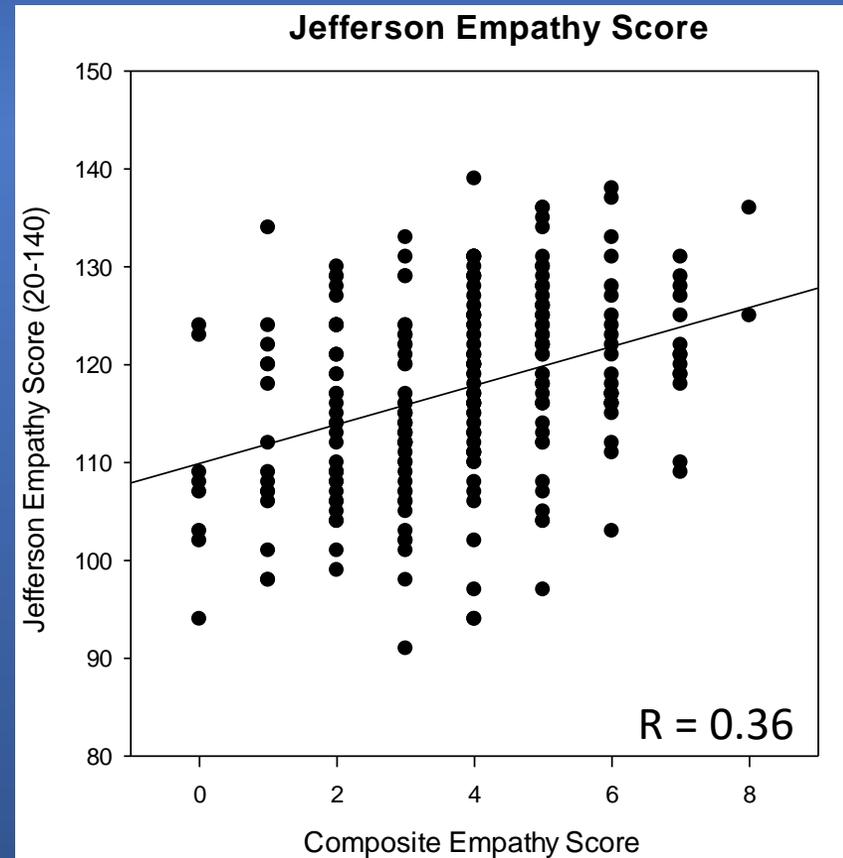


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Empathy and Subcomponents vs. Interest in OMM



Student Empathy and Correlations to OMM



OMM Composite Score: Responses related to the use of OMM (past/present/future) were positively correlated to empathy levels.

Question: Receiving OMM?

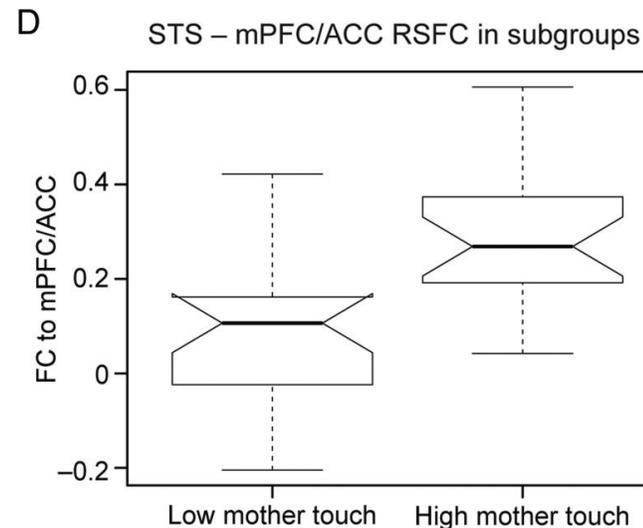
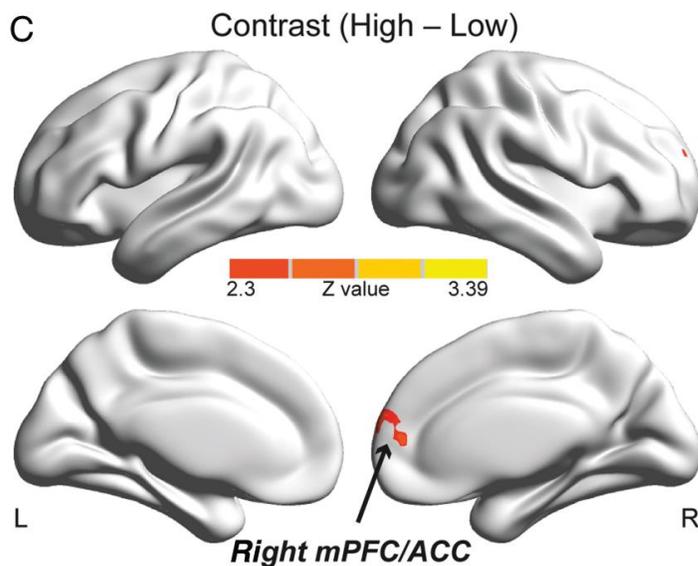
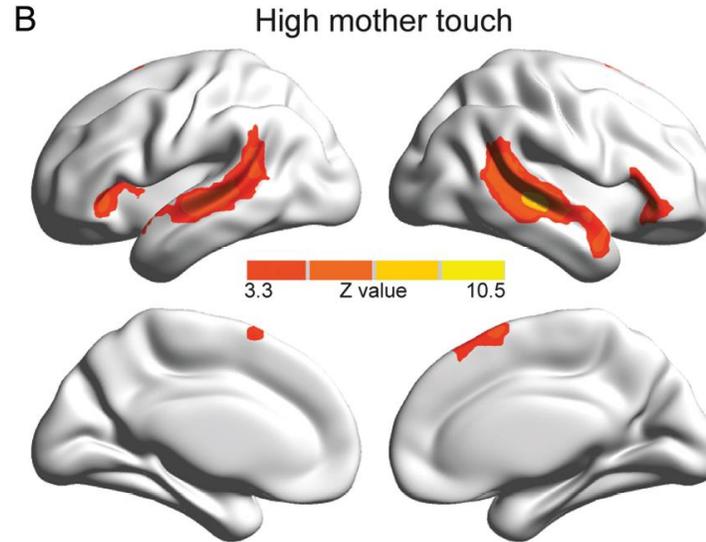
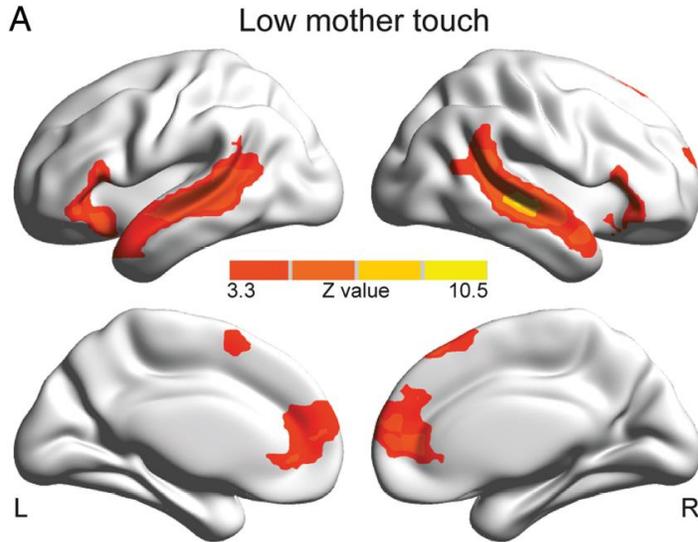
ORIGINAL

Frequency
and Correlation

Jens Brauer
Annett School

¹Department of
Psychology, ²LIFE
Neurobiology/
Graduate Medicine

Address correspondence
Email: brauer@cbs.mn
Email: schirmer@nu



ing Activity
rain

rici¹ and

Sciences, Leipzig,
of Psychology and ⁴LSI
re and ⁵Duke/NUS

, 04103 Leipzig, Germany.
.17570, Singapore.



Summary:

- Physician empathy leads to better health outcomes via increased trust, compliance, and also reduces physician burnout.
- Empathy declines during the 3rd year of Allopathic medical school.
- Empathy levels do not decline during Osteopathic medical school.

- Preliminary data suggest empathy levels are positively correlated with interest and use of OMM.

Osteopathic Philosophy

Empathy and Educational Implications
Beyond the Classroom and Clinic?



Cleveland Clinic: 2/27/2013: The Human Connection to Patient Care:
https://www.youtube.com/watch?v=cDDWvj_q-o8



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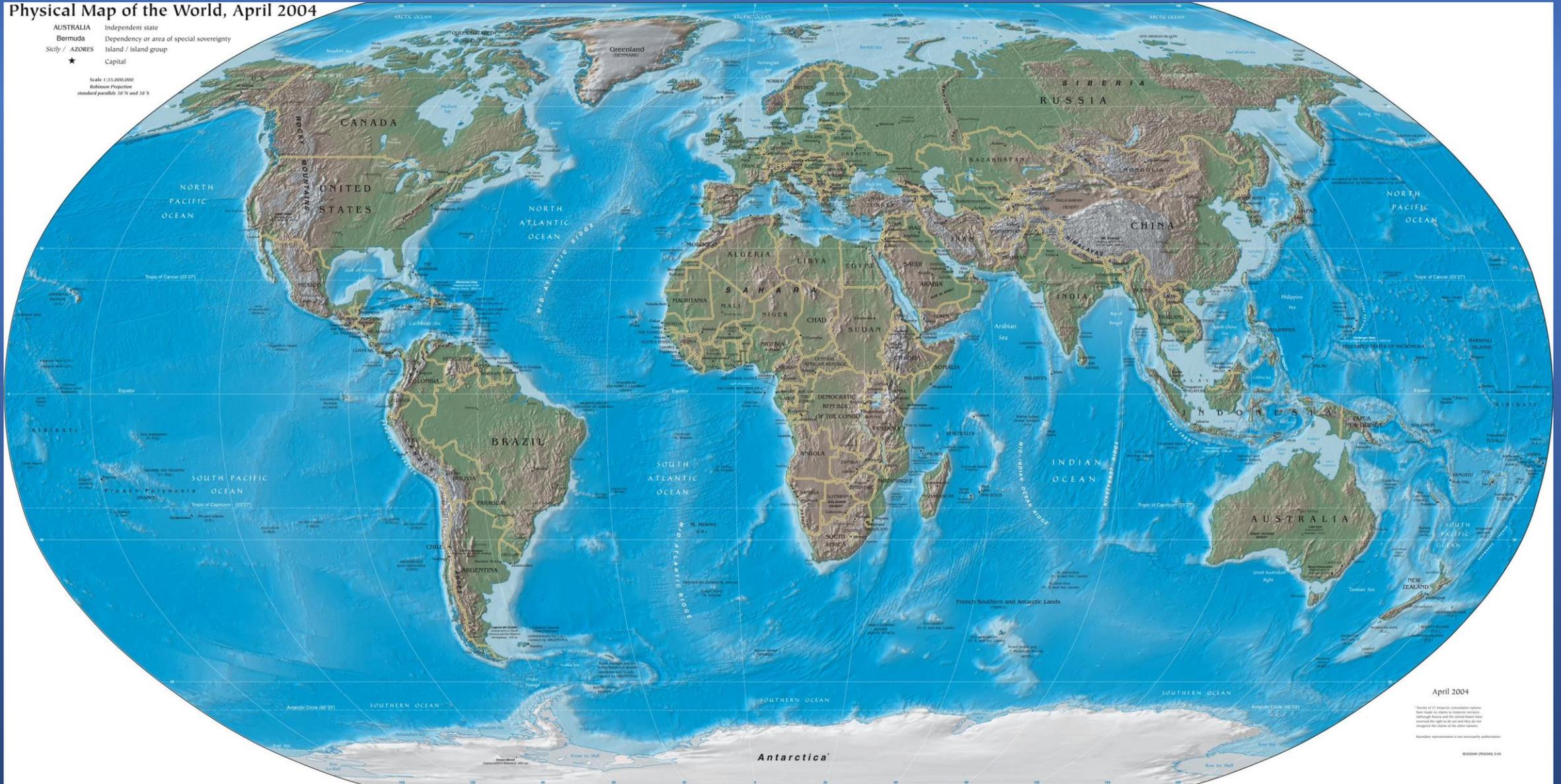
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Osteopathic Philosophy → Global Empathy

Physical Map of the World, April 2004

- AUSTRALIA Independent state
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- ★ Capital

Scale 1:35,000,000
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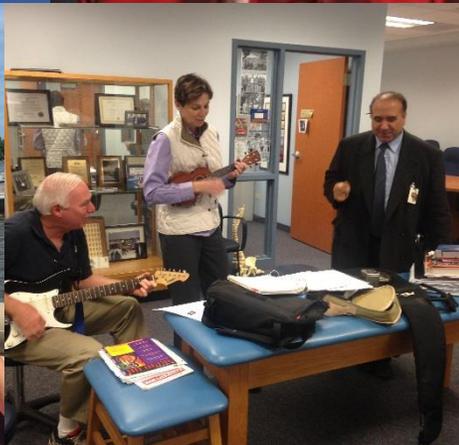
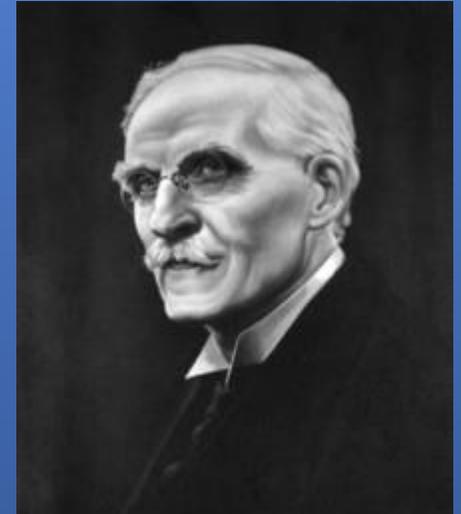
April 2004

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- Dr. Karen Nichols, D.O.



Thank-you! Any Questions?



Health is in our Hands



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