Does empathy change during medical education? A meta-analysis

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Empathy

• “Empathy is seeing with the eyes of another, listening with the ears of another and feeling with the heart of another.”

• Empathy reflects an innate ability to perceive and be sensitive to the emotional states of others coupled with motivation to care for their wellbeing.
Empathy in Medicine

• Empathy is regarded as being crucial to the development of the therapeutic relationship and has been linked to patient enablement. (Mercer SW et al 2001, Dixon DM et al 1999)

• High levels of empathy have been associated with enhanced diagnostic accuracy and favorable patient outcomes. (Del Canale S et al 2012, Hojat M et al 2011)

• Empathy is considered an essential prerequisite for effective medical care and holistic understanding go the patient’s perspective (Walker and Alligood 2001; Reynolds 2000)
Empathy in Medical Education

• “Medical schools need students who are better able to understand their patients and can, therefore, apply the most appropriate treatment” (Cowley 2006)

• Empathy should be an essential objective in undergraduate education (Association of American Medical Colleges)
Empathy in Medical Education

Studies examining the empathy of medical students show **contradictory results**.

- Studies conducted in the US showed a significant reduction in empathy during medical education (*Chen et al* 2012, *Neumann et al* 2011)

- Other studies do not show same trend towards reduction of empathy during medical education (*Paro et al* 2014, *Costa et al* 2013)
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• Consequently it is important to examine reliably whether and how empathy changes through the years of medical education.

• Therefore, the overarching aim of the review was to synthesize the existing evidence examining how empathy changes during undergraduate medical education.

<table>
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<tr>
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Electronic databases searched and number of results.
(28 November 2018)
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- **Number of studies:** n=12

- **Sample size:** n=4906

- **Instrument:** Jefferson’s Scale for Physician Empathy (JSPE) (n=7), The Balanced Emotional Empathy Scale (BEES), the Reading the Mind Eyes test (RME-R test), the Empathy Quotient (EQ) scale and the Interpersonal Reactivity Index (IRI)

- **Origin:** USA (n=3), Ethiopia, India, Iran, Malaysia, Pakistan, Portugal, Turkey and United Kingdom.

- **Design:** cross-sectional (n=9) and longitudinal (n=3).
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RESULTS:

• Overall results indicate a small significant effect (g = 0.487, SE = 0.113, 95% CI= 0.265, 0.709).

• In relation to instruments used to measure empathy, scales using the Jefferson’s Scale for Physician Empathy reported higher effect sizes (g = 0.834, SE = 0.219, 95% CI = 0.406, 1.263), while the effect size of other used scales was smaller and not significant (g = 0.099, SE = 0.052, 95% CI = -0.003, 0.201).

• In terms of origin, there was a smaller effect size for studies conducted in the US (g = 0.209, SE = 0.057, 95% CI = 0.097, 0.321) in comparison with those conducted in non-US countries (g = -0.903, SE = 0.326, 95% CI = 0.264, 1.542).

(Medical Teacher, https://doi.org/10.1080/0142159X.2019.1584275)
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1. Jefferson Scale of Physician Empathy (JSPE)

2. Western cultures (mostly the United States) are more **individualistic**, than cultural products that come from **collectivistic** eastern cultures (including Korea, Japan, China, and Mexico).
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• One needs to be cautious in concluding that empathy decreases during medical education, given the over-reliance on one single measure.

• More **information is needed** before we devote scare resources to training healthcare professionals to be more empathetic, in order to deliver high quality, holistic care. *(Spector 2006)*

• **Integrating cultural issues** at the undergraduate levels can help doctors-in-training to have a better understanding of cultural issues in clinical settings later on. *(Humayun and Herbert 2011)*
Let's stop waiting for a better world. Let's start working on it. Together.

Thank you!!