Instilling empathy - is the devil still in third year?

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ABSTRACT

**Background:** An empathetic, humanistic approach has been linked to patient sense of satisfaction, patient safety and compliance with treatment and physician wellness. Although recent cross sectional studies have challenged the notion of decline of empathy in medical school training, longitudinal studies suggest mixed results or that empathy may erode. This project was designed to enable longitudinal assessment of medical students' empathy at the University of Ottawa starting with first year of enrollment and thus help to identify at what point in the curriculum there is a need to develop measures to support these qualities.

**Summary of Work:** The Interpersonal Reactivity Index (IRI) was used to measure emotional and cognitive empathy. It was preferred over other measures due to high psychometric properties, use within medical fields around the world, and validation in multiple languages. Students were contacted by email and participation was voluntary. The four IRI subtests utilized in this project included perspective taking, fantasy taking, empathic concern and personal distress.

**Summary of Results:** Results of student responses gathered longitudinally form year 1 to 3 demonstrated statistically significant increase in IRI subtests of perspective taking, fantasy taking and empathic concern. For personal distress there was similar tendency to experience feelings of personal anxiety and unease in tense interpersonal settings as students progress through their curriculum.

**Discussion and Conclusions:** The Preliminary IRI responses suggest that most of the empathy competencies may improve with training as students gain clinical exposure when provided with supports and learning experiences such as a humanities program, a diverse professionalism curriculum, reflective longitudinal mandatory eportfolio and solid faculty development (as introduced at University of Ottawa). More frequent wellness checks and student support to address pressures of the learning environment may be required in clinical years.

**Take-home Messages:** These findings at our institution are in contrast to previous longitudinal studies measuring empathy in medical students where empathy appeared to decline in the clinical years. It could also be reflective of the shift in medical education designed to foster overall a more positive learning environment. The results indicate also that IRI is a tool that can be applied across a medical school curriculum and assist in tracking impact of educational measures.
Students’ stress coping strategies impact empathy trajectories during medical training: a 5-year longitudinal study

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ABSTRACT

Background: Research suggests that different longitudinal empathy trajectories may exist within a given student population. Empathy might be influenced by several factors during preclinical-to-clinical transition, including anxiety and stress. However, changes in longitudinal inter-individual variability in empathy due to these factors remain insufficiently explored.

Summary of Work: We tested the associations of anxiety and stress coping with pre-analysed students’ empathy trajectories over time during medical studies. Group-based trajectory modeling traced different empathy trajectories among 201 medical students at the Geneva medical school (Mage=20.74, 57% females) from preclinical (Years 1) to clinical years (Years 4, 5). Differences between empathy trajectories were assessed on self-reported anxiety and stress coping strategies at years 1, 2 and at the beginning of clinical training at Year 4. Measures included the student version of the Jefferson Scale of Empathy (Years 1, 4, 5), the Coping Inventory for Stressful Situations (Years 1, 4) and the State-Trait Anxiety Inventory (Years 2 and 4).

Summary of Results: Results evidenced two empathy trajectory groups: low decreasing (n=59; 29%) and high stable (n=142; 71%). The decline of empathy among low decreasing students was evident during clinical years. At Year 4, univariate analysis of covariance (controlling for gender) indicated that low decreasing students were more likely to report low levels of task-oriented coping (i.e., dealing directly with stressful situations) than their high stable peers (p<0.05). No differences in anxiety levels were observed between the two groups. At Year 5, lower empathy levels were predicted by lower levels of task-oriented coping at Year 4 (p<0.05) according to a regression model controlling for gender, avoidance- and emotional-oriented coping strategies.

Discussion and Conclusions: Medical students individually differ in empathy development: for some empathy can remain stable while for others it can decrease especially during clinical training. Furthermore, students who showed lower empathy levels also displayed lower stress coping strategies.

Take-home Messages: Clinical years substantially impacted empathy levels in nearly one-third of medical students. Lower stress coping strategies when beginning clinical training predict lower empathy levels in the following training year.
Embodied empathy, a phenomenological study of physician touch

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ABSTRACT

Background: Empathic physician behavior is associated with improved patient outcomes. One way to demonstrate empathy is effective use of nonverbal communication skills (NVC). NVC include facial expression, body language, gestures, and touch. While touching someone's arm, in a moment of distress can express empathy, touch is also liable to misinterpretation. Touch is a sensitive practice in medicine, and the literature shows learners would value more guidance. To develop a better understanding of touch as a form of empathic behavior, we explored physicians' experiences communicating with touch.

Summary of Work: We used interpretative phenomenology, the study of human experience, to guide study design. We conducted in-depth interviews (40-100 mins) with fifteen physicians (7 men) of varying experience (less than five year, six-fifteen year and more than sixteen years, from a range of specialties. Participants described specific examples of touch from clinical practice. We identified themes using template analysis, followed by a process of dialectic questioning, moving back and forth between the data, to synthesize a final interpretation.

Summary of Results: Physicians used touch to acknowledge emotions, demonstrate empathy and presence. We situation our findings in the writings of Merleau-Ponty, using Finlay's model of embodied empathy to illustrate three levels of empathic engagement through touch; physicians embodied responses in a given context informed possible use of touch. Physicians 'act[ed]-into' the situation, by imagining how a patient might feel. Finally, some physicians, recalled instances where they were unable to differentiate between physical and emotional ‘touch’, illustrating a ‘merg[ing]-with’ patient experience. Empathic touch involved attending to shared context, as an intersubjective experience, rather than focusing on the individuality of either experiencer.

Discussion and Conclusions: Touch is relatively unexplored in medicine but our results indicate it plays a valuable role in nonverbal communication, particularly expression of empathy. Given its complexity, we suggest initial strategies for teaching could include raising the topic with learners as part of communication skills curricula or video analysis of recorded consultations.

Take-home Messages: Touch shows empathy in clinical practice. Phenomenological accounts of empathy, which emphasize its embodied intersubjective nature, could inform pedagogical approaches to touch in medical education and deepen our understanding of empathy.
Empathy microskills training program for undergraduate medical students in Chile

AUTHOR(S):

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ABSTRACT

Background: In the last 20 years research have supported the importance of empathy and communication skills for doctors and patient interactions, mainly having a positive effect in adherence and outcome. However, there is not a proven way to teach students these abilities. We took the microskills proposal from Beck & Kulzer (2018) and developed an empathy microskills training program for undergraduate medical students. The aim of this study is to evaluate this program.

Summary of Work: An experimental design with two groups (A and B) was realized. Students were randomly allocated in each group. The program was divided in two part: a theory and discussion module and a workshop module. Both groups received both modules but in different times. Group A received the workshop first and then the theory module. Group B, otherwise. There were four measures, one at the beginning, one after the first month (end of theory module “middle term of workshop module”), one after the second month (end of workshop module) and one at the end. Video recording of simulated patient interview was done for each student in each measure time. Five judges evaluated the student microskills through the microskills rubric for the five microskills: silence, active listening, non verbal communication, conveying empathy, and resonance.

Summary of Results: 28 students participated in this study. In the first measurement, there were no statistical differences between the groups in any of the skills. In the second measurement, an improvement of 0.7 (ir=1.0) was observed for both groups, with no statistical differences between them. In the third measurement, there was a decline of 0.6 (ir=1.3), but also with no statistical differences between the groups. In the last measure, there were statistical differences between the groups for every microskills, in exception of silence.

Discussion and Conclusions: It is crystal clear that we can teach empathy, and that it can be done with theory and discussion groups or through workshop where students can apply and practice these abilities. A combination of both is preferred. Simulated patients are also needed for teaching empathy.

Take-home Messages: Empathy can be taught to medical students from a microskills perspective.
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**Fostering social empathy in medical students**

**AUTHOR(S):**  
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**ABSTRACT**

**Background:** The Social Empathy Index (SEI) is a validated instrument that measures self-reported empathy for both individuals and vulnerable groups. The social empathy component is comprised of two categories: Contextual Understanding of Societal Barriers and Macro Self-Other Perspective-taking.

**Summary of Work:** We published a study of all first-year medical students’ SEI scores before and after completing a required course on the social determinants of health. In a follow-up publication, we re-administered the SEI to the original student cohort entering their 4th year to determine longitudinal changes in individual and especially social empathy.

**Summary of Results:** Of 130 4th-year eligible medical students, 76 (58%) completed all three surveys. Significant changes occurred in 2 categories of individual empathy and in one category of social empathy. The mean 'Affective Mentalizing' score increased by 0.15 points from the first to fourth year of medical school, P<0.05. A concomitant decline was observed in 'Emotional Regulation' decreasing 0.68 points, P<0.001. ‘Contextual Understanding of Systemic Barriers’ (CU) increased in mean score by 0.26 points, P=0.006. Fourth-year students who indicated their plan to enter primary care specialties had higher scores at base-line and at follow-up.

**Discussion and Conclusions:** Our findings support promoting interventions to combat a decline of emotional regulation in their clinical years. The consistent increase in CU at each follow-up testing point may indicate a need to place greater emphasis on students’ sense of self-efficacy in addressing the social determinants of health, as CU represents a focus on barriers rather than a doorway to efficacious action. One measurable gauge of success in instilling a sense of agency would be improvement in the second social empathy category, Macro Self-Other Perspective-taking (MSP), which in our studies did not change over time. Social empathy scores also might predict on entry into medical school which students are likely to choose primary care specialties.

**Take-home Messages:** The SEI can be used to gauge students’ empathy for social groups. 2. Helping students regulate their emotions may stop empathy decline and reduce burnout. 3. When teaching social determinants of health, educators should engage students in practical, actionable solutions. 4. Higher Social Empathy Index scores on matriculation may predict students’ entry into primary care specialties.
Measuring the level of clinical empathy in Moscow medical students and residents by the Jefferson Scale of Empathy - the first pilot study in Russia

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ABSTRACT

Background: Empathy is considered to be a core competence of practicing physician who is expected to master it before launching unsupervised medical practice. On the other hand most Russian medical educators use research tools designed to estimate empathy in general population. The aim of this study was to evaluate the level of empathy in Moscow medical students and residents using Russian translation of Jefferson Scale of Empathy version for medical students (JSE-S).

Summary of Work: This cross-sectional study was conducted in September-December 2018 at the A.I. Yevdokimov Moscow State University of Medicine and Dentistry. The paper version of JSE-S translated into Russian was filled out anonymously by 161 (30.4% males) final year medical students and 138 (30.6% males) first year medical residents. The mean empathy scores were analyzed with regard to gender, age and future specialty. The data were processed by Statistica 13.2 software.

Summary of Results: The JSE-S Russian version was well perceived by our respondents and displayed acceptable internal consistency in both students and residents (Cronbach’s alpha = 0.81 and 0.79 resp.). Total empathy scores did not differ significantly between students and residents (96.1 vs 98.1). Gender differences between student male and female respondents were not significant (94.8 vs 97.6), but female residents were obviously more empathetic than their male colleagues (100.1 vs 93.3, p=0.0188). No association was found between age, specialty interests and the level of empathy in both students and residents groups.

Discussion and Conclusions: Mean empathy scores of our respondents were comparable to those obtained in most Asian countries but noticeably lower than the data reported by researchers from Western countries. Interestingly, these findings match geographical position of Russia and might reflect local cultural traditions as well as certain tension within the medical profession caused by ongoing reforms of healthcare system in this country.

Take-home Messages: Encouraging results of our preliminary study substantiate further appraisal and validation of the JSE-S Russian version in national system of medical education. More targeted teaching on communicative skills could raise the level of empathy in medical trainees before they start their independent medical practice.