PEDAGOGICAL AND CLINICAL RAMIFICATIONS OF A LONGITUDINAL STUDY ON THE EVOLUTION OF PERSONAL HEALTH CARE PERSPECTIVES AMONG MEDICAL STUDENTS.

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ABSTRACT

For the purpose of a qualitative study, researchers conducted a survey with 49 medical students in their fourth year from two different universities. Using formative assessment statements was the primary method that was utilised for the purpose of acquiring information. For the purpose of conducting an investigation into the data, the researcher utilised the qualitative content analysis methodology. A total of three primary factors were identified as the root reasons of the GP's problems. They are referred to as "prerequisites," "patients' concerns," and "mastery and professional judgement," respectively, and they are representative of the distinctive characteristics of primary care, the manifestation of patients' symptoms, and the perspectives of general practitioners on actual encounters. The following characteristics were highlighted by the students as being crucial in a general practitioner: the capacity to treat a wide range of problems, strong communication skills, and a counselling approach that is straightforward and straightforward. They gathered information from a variety of patients and linked it to the fragmented character of this area of medicine. They took a wide range of perspectives towards their patients. It is essential for students to go through this stage of their education because it is during this time that they are forming their thoughts on general practise. It is becoming more and more apparent that medical students face common and complicated mental and physical health care difficulties. It is not uncommon for training-related stresses to be the root cause of emotional distress, mental disease symptoms, and unhealthy substance use. From what The Researcher can tell, almost all medical students also note issues with their physical health. The stigmatisation of some diseases and the fact that medical students play the dual role of student and patient make patient care for medical students a challenging and multifaceted issue.

Keywords: General Physician, Students in Medicine, Student Perspectives, Writing for Reflection.

INTRODUCTION

It is the patient's responsibility to independently resolve any unforeseen issues. Additionally, this serves as an overview of primary care. Some students' clinical rotation supervisors are remote general practitioners. Some kids have overnight stays and everyday excursions. General practitioners frequently provide students free supervision. After finishing a foundational course, general practitioners want to teach and supervise graduate practitioners. Due to a lack of data, the researcher decided to conduct a qualitative study on students' views on GP competency at Sweden's University of Gothenburg. Perceptions of family doctors' competence among fourth-year medical students were the focus of this research. Anxiety vs. Anxiety Disorders (2019) also aimed to determine whether students thought GPs were better than other specialists at dealing with particular clinical issues (O'Dowd et al., 2019).

The expectations placed on students aspiring to careers in medicine are constantly evolving, and medical schools are ill-equipped to meet these needs. It's possible that the patient's role in treatment will diminish as medical knowledge and scientific methods advance. As the health care system has grown increasingly intricate and interdependent, it is more crucial than ever that doctors understand the significance of putting patients first while providing clinical treatment. Without this, providing medical care would stop being as humanitarian as it already is. In this chapter, The Researcher will discuss what empathy is, why it's important, and how to teach it to future doctors and nurses. The development of qualities that are indicative of a "good doctor" is a primary objective of medical education. One of the most crucial qualities for a healthcare provider to have, according to most people, is empathy. In fact, eighty percent of patients said they would recommend a compassionate doctor to their loved ones. It is tremendously helpful for doctors when they can demonstrate compassion towards nervous patients. found that the emotional results for cancer patients were better when they saw their doctors as compassionate and empathetic. Studies have shown that showing empathy for a patient improves treatment outcomes and adds to the patient's happiness. Compared to patients whose doctors lacked empathy, individuals whose doctors showed empathy had a far easier time controlling their haemoglobin A1c levels (Cherak et al., 2020). They also had a substantially better shot at managing their LDL-C levels. A common cold was less severe and lasted less time for patients who visited specialists who showed empathy. A plausible theory to explain the health-related findings is that people are more likely to divulge personal information about their health and habits to their doctors if they trust them. With the newfound knowledge, the doctor can better care for The Researcher. Many studies have demonstrated that patients are more likely to trust their doctors when they perceive that they empathise with their emotional struggles. Also, seeing a doctor who shows compassion could help ease worries and make it easier to deal with tough situations (Weller et al., 2020).

BACKGROUND OF THE STUDY

The skill of a physician to effectively communicate medical knowledge to their patients is a key component in the development of their professional identity. The work of designing a communication plan that respects the patient by including them in a real situation and listens to their concerns in a caring manner is, on the other hand, a more difficult assignment than the process of acquiring factual information. The provision of "patient-centered" consultations may be challenging for a great number of trainees, and in the most dire of circumstances, it may even cause them to completely lose their developing compassion. Active listening is especially important when communicating with medical professionals, such as nurses and doctors, who work in a variety of fields simultaneously. Teachers give a variety of instructional strategies that students can use, such as group projects and individual study, in order to assist students in better comprehending how to engage with one another. For medical students all throughout the world, the shift from graduating from medical school to establishing solo practice appears to be a significant one (Pinilla et al., 2020). It is frequently observed that graduates of medical schools are not adequately equipped for independence in practice. The majority of the prior research on the preparation of students has been cross-sectional. A medical student undergoes a long and ongoing process of transformation into a doctor with professional competencies during their medical school. Basic medical education, clinical rotations, residency, and faculty development are some of the common phases that are broken down into several parts of the process. Students are able to consistently acquire the stage-specific information, abilities, and attitudes because each stage provides a rather uniform learning environment. Students may undergo significant changes, nevertheless, as they move from one level to the next (Mylopoulos et al., 2020). The time between medical school and practice is one of the most formative years of a student's education, regardless of their home country's or system's curriculum. Typically, medical students complete their basic education with a rotational clinical observership before graduating. Clinical placement, clerkship, or (undergraduate) in-ternship are some of the terms used to describe this time. During this time, clinical educators guide students' clinical learning and oversee their development of job-specific competencies in the field. After finishing the program and passing the board exam, students will be able to work independently in a hospital setting under close supervision. This stage following graduation may involve a rotation during the postgraduate year (PGY), a residence, or an internship, depending on the system in place (Henschen et al., 2020).

PURPOSE OF THE RESEARCH

This research aims to investigate the educational and clinical consequences of a longitudinal study on the development of personal health care perspectives among medical students. Specifically, the study will focus on the evolution of these perspectives over time. Throughout the course of their education, students will be monitored to determine how their attitudes on self-care, patient care, and personal health change. The purpose of this study is to determine the influence that medical

training has on these viewpoints. The purpose of this research is to determine, from a pedagogical point of view, how educational methods might be enhanced in order to promote holistic health practices for both students and patients. From a clinical standpoint, it investigates the ways in which these shifting viewpoints impact future patient care, empathy, and overall professionalism in the field of general medicine. In addition, the purpose of the study is to investigate how the pressures and difficulties of medical school influence the health behaviours, well-being, and relationships between work and personal life of the students. In the end, the purpose of the research is to give useful insights into how medical curricula may better support students in maintaining their health and how future physicians can provide care that is compassionate and centred on the patient.

LITERATURE REVIEW

When conducting interviews on health-related matters, for instance, it is essential to put into practise the fundamentals of the communication that takes place between a physician and a patient. During a clinical interview, the primary objective of the physician is to collect medical information for diagnostic purposes. Sharing of information, expert advice, and advocating for the patient's best interests while keeping those interests in mind are all important aspects of patient care. The individual is now looking for direction and aid at this time. As a consequence of this arrangement, the power dynamic between the patient and the accompanying physician is not well balanced. Furthermore, the high moral standards and desires of the physician lend support to a consultation style that centres on the "doctor" and the "disease," with the doctor keeping control over the relationship between the patient and the physician. The aforementioned ethical norms, on the other hand, call for a conversational approach that presumes the physician is willing to share both information and abilities with the patient and that the physician is regarded as an equal participant in the treatment process (Noeverman-Poel et al., 2019). It has been found that patients are now better able to convey their mental problems when they are not being examined in contrast to other patients (Indian Journal of Public Health Research & Development, 2020). Two unique psychological necessities are the "need to know and understand" in terms of one's intellect and "the desire to comprehend" known and understood in terms of one's emotions (van den Broek et al., 2020). Both of these necessities are necessary for one to have. Prior to the 1950s, the biological theory that emphasised the importance of clinical interviews focused primarily on the health problems that both patients and physicians were confronted with. Since that time, there has been a trend towards placing a greater emphasis on the significance of the individual in both relationships and speech. This transition has been brought about by breakthroughs in science and society, such as technical advancements, the rise of consumerist attitudes, and more intense market competition. These new developments include the following, among others: In the 1950s, Balint articulated a humanistic and psychodynamic perspective on the connection between the family physician and the patient. As a consequence of this,

the viewpoint of health and illness moved from being biological to being biopsychosocial. When a physician takes a holistic approach to the treatment of a patient, they are required to be actively involved in the patient's entire life and to analyse how the patient's biological problems may impair their capacity to do daily chores (Mitzmann, 2019).

RESEARCH QUESTION

What is the impact of empathy and compassion on pedagogical ramification?

METHODOLOGY

Qualitative methodologies facilitate the acquisition of more comprehensive data during study on a topic. An obvious advantage is the sustained focus on the performers throughout the process. Nonetheless, specific sequences are essential for analysing the video observations. Regardless of the efficacy of the execution, the ultimate outcome will invariably reflect the researcher's perspective. Rather, these decisions ought to be grounded in research enquiries. Identical caution must be applied when inferring inferences from the data. To guarantee the data acquired for this study was of the utmost quality, it is crucial to note that the researcher was present throughout the entire video recordings. Given their physical presence, it is likely that someone possesses interest in and familiarity with the studied topics. The researcher presented excerpts from the transcripts to educators and other scholars to obtain their perspectives on the topic and asked their thoughts. Another characteristic of case studies is that their conclusions can only be partially generalised to other situations with analogous attributes to those in the case study. The study's design—patient-centered exploratory interviews with first-year medical students—may preclude the extrapolation of findings to more seasoned physicians or to alternative consultation situations (such as delivering adverse news). Although this is a possibility, it does not diminish the importance of the results in any other context. In contrast, the insights gained from an individual case study may provide foundational ideas for subsequent case-based research. Considering that these data were collected in 2001, it is likely that some of the subjects addressed by the researcher have diminished in relevance over time. Numerous course organisers affirmed that the reoccurring themes would persist still.

SAMPLING

A pilot study was conducted using a questionnaire with a group of 20 consumers from China, followed by a final study utilising the questionnaire on a sample of 369 customers. A total of questionnaires was distributed to clients selected using rigorous random sampling. All completed questionnaires were included in the study, whilst partial questionnaires were discarded by the researcher.

DATA AND MEASUREMENT

The core data for the research study was collected through a questionnaire survey. The questionnaire consisted of two sections: (A) Demographic information and (B) Factor responses assessed using a 5-point Likert scale for both online and offline methods. Secondary data was collected from many sources, primarily online resources.

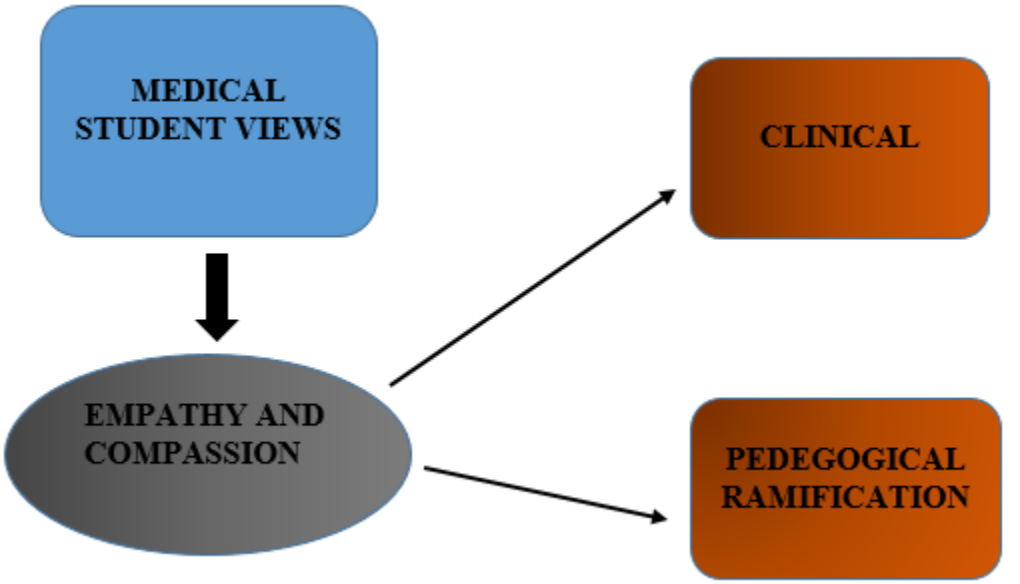
STATISTICAL SOFTWARE

Statistical analysis will be conducted using MS-Excel and SPSS 25.

STATISTICAL TOOLS

Descriptive analysis was utilised to comprehend the fundamental characteristics of the data. Validity will be assessed via factor analysis.

CONCEPTUAL FRAMEWORK



RESULT

The article "Talking with Clients and Peers: Medical Students' Difficulties in Learning Communication Skills" (A. Lumma, L. Sellentin) identified seven categories of student grievances:

Creating a secure environment 2. Analysing and arranging the patient's financial documentation Introducing contentious topics The classroom atmosphere The educational significance of group conversations A prevalent concern among medical students is whether their patients perceive them as competent physicians. Insufficient biological understanding was identified as a significant factor contributing to students' sentiments of inadequacy. Trustworthiness was evaluated in conjunction with exterior elements, like white jackets and seating arrangements. Secondly, when confronted with comprehensive explanations, numerous students

reported difficulty in comprehending the findings. At other times, they indicated that patients were excessively reserved. Interrupting patients during conversation and posing straight enquiries may be perceived as impolite. Third, while addressing the patient's personal life or mental health concerns such as occupational stress, isolation, depression, or dysfunctional family dynamics, students frequently experienced feelings of intrusiveness or curiosity. Many individuals were uncertain about the extent to which patients' personal histories influenced their ailments. The emotional needs of their patients, particularly those in pain, created perplexity for the trainees. Numerous individuals had a deficiency in emotional intelligence, hindering their ability to offer authentic empathy to their patients. 5. Self-assessing one's interview performance by juxtaposing personal behaviour with the theoretical model may induce cognitive overload and hinder the flow of discourse. The management endorsed the implementation of simplified approaches, including formulas for typical situations. They aided the students in establishing a specialist vocabulary that encompassed metaphorical and categorical terminology for frequently encountered situations and patient classifications. The meticulous evaluation of their own performance may be perceived as emotionally burdensome. This involved fabricating comments for evaluation. While engaging with real patients was appreciated, the presence of a video camera was perceived as an impediment to authenticity and openness. Peer students were utilised for role plays designed to execute diverse strategies. Study III: "Medical Students' Perspectives on Collaborative and Autonomous Learning" (Lumma Sellenthin, A., 2012) 6.3 Researchers investigated how demographic characteristics, together with problem-based and blended curriculum, affected freshmen students' perceptions of and engagement in group work for academic objectives. No substantial gender differences were observed in students' perceptions of the importance of solitary versus group study or in their knowledge of study practices. Students with prior health care experience reported enhanced group learning ($t(341) = 2.971$, $p = .003$), increased knowledge ($t(340) = 2.258$, $p = .025$), and improved management of learning processes ($t(333) = 3.307$, $p < .001$). Students with parents employed in the healthcare sector shown greater familiarity with their learning methodologies ($t(340) = 2.255$, $p = .025$). Participants indicated a heightened perception of social norms favouring engagement in group learning ($t(337) = 3.014$, $p = .003$). The most significant mean difference was observed between students from the German problem-based school in Witten/Herdecke and those from the German program at Marburg, which employs more traditional teaching methods. Marburg (Witten/Herdecke) = 1.45 (on a scale from 1 to 7), standard deviation = 0.181 ($p < 0.001$). The greatest percentage of students with direct experience in the health care sector was observed at Witten/Herdecke (90%), compared to 48% at Linköping, 64% at Marburg, and 51% at Gothenburg. It was disclosed that group learning experiences in Swedish schools were not markedly distinct from one another. Students from Witten/Herdecke outperformed those from Gothenburg in adjusting their learning strategies (mean difference 0.18, standard error 0.084, $p = .034$).

Ultimately, in comparison to students from other universities, those from Linköping indicated markedly elevated levels of social pressure to engage in collaborative learning (mean difference Linköping vs. Witten/Herdecke 1.71, standard error = .303, p = .000; Linköping vs. Gothenburg 1.81, standard error = .281, p = .000; Linköping vs. Marburg 2.24, standard error = . Consequently, no association existed between students' gender or age and their comprehension of learning approaches or their attitudes towards independent study and collaborative work. Fifty-four Work experience, whether personal or parental, was associated with enhanced metacognitive abilities and collaborative work experience. This indicates that students' pre-academic clinical experience may provide essential conditions for the attainment of professional competence. The demographics of students, their metacognitive abilities, and their assessment of patient-centered care were examined alongside their perspectives on the importance of developing communication skills within conventional and problem-based curricula in Germany and Sweden. The favourable dispositions of students towards the enhancement of communication abilities were predicted by a compassionate patient orientation, strong self-regulation of learning processes, and female gender (R2= .23, F(9,310) = 9.72, p < .001). The students' age, gender, and motivation to develop communication skills forecasted a compassionate patient orientation (R2=.23, F(9,307) = 13.48, p < .001). Compared to students in Witten/Herdecke (Positive Attitude Scale (PAS): mean difference 0.49, on a 7-point Likert scale; SE = 0.07, p < 0.001), Linköping (PAS: mean difference 0.46, SE = 0.09, p < 0.001), and students in Marburg's conventional German curriculum (PAS: mean difference.

Table 1: Demographic characteristics of panel members.

	Number	Occupation	Gender
	02	Clinical teacher	Female
	02	Unit coordinator	Female
	02	Graduate nurse	Male
	02	Head nurse	01 Male, 01 Female
	02	Staff nurse	Female
Total	10		

The panellists received a four-point Likert scale for each of the four criteria and were instructed to assess their level of agreement with each item in the Inventory. The criteria encompassed the grading scale's relevancy, clarity, grasp, and appropriateness. Furthermore, The Researcher solicited feedback from the panel members regarding potential modifications to any item, along with recommendations for enhancing the clarity of the Inventory's phrasing. The content validity index (CVI) was computed at both the item and scale levels to assess the conceptual and content equivalency of the translated inventory.

The findings indicate that the CVI for each item fell within acceptable parameters. The Item-level Content Validity Index (I-CVI) shown a minimal average of 0.85 (Appendix M), whereas the Scale-level Content Validity Index (S-CVI/Ave) demonstrated an average of 0.995.

Table 2: Average scale-level content validity index (S-CVI/Ave).

Inventory Subscales	S-CVI/Ave			
	Relevance	Clarity	Comprehensiveness	Adequacy of the rating scale
Affordances and Engagement (16 items)	.996	1.0	1.0	1.0
Student-centredness (18 items)	1.0	.996	.993	1.0
Enabling Individual Engagement (four items)	1.0	1.0	1.0	1.0
Valuing Nursing Work (three items)	.967	.983	.983	1.0
Fostering Workplace Learning (six items)	.997	1.0	1.0	1.0
Innovative and Adaptive Workplace Culture (three items)	.977	.943	.943	1.0

Revisions made in response to the comments provided by the panellists: In regard to the substance of the item, several adjustments were made to be consistent with the remarks given by the panel members. In regard to point 5, examples were included following the term “new ideas” in order to make it more clear whose new ideas were being discussed. The language structure of item 19a/b has been revised to make it simpler and easier to understand. In addition to this, examples were added to item 20 to make it clearer who the term “others” referred to. After that, the final translated version (Appendix N) was completed and finalized.

Demographic characteristics of the sample: There were 216 participants who were eligible, and 209 of them finished the Inventory. This gives the researchers a response rate of 97%. There were 188 females out of those total, with just 24 males accounting for 11.5% of the total. This sample consisted of The Researcher ng people, with an average age of 20.6 years and a standard deviation of 0.72 years. More than half of the participants had gone on to complete their college education immediately after graduating from high school (56%). General Medical, Intensive Care Unit, Ophthalmology, Dental and Maxillofacial, Ear, Nose, and Throat, and General Surgical were some of the wards that students had the opportunity to rotate through during their most recent clinical rotation. The prior clinical rotation that they had participated in lasted an average of 1.54 weeks. Prior to this semester, no students have participated in this clinical rotation. There were just two students who were missing from the planned clinical rotation for a full day, which represents

1% of the total student body. The further demographic statistics may be found in table.

Table 3: Demographic characteristics (n = 209).

Characteristic	Result (n, %)
Gender	
Female	185 (88.5%)
Male	24 (11.5%)
Age (mean, SD)	20.6 ± .72 years
Clinical practice location	
General Medical	52 (24.9%)
ICU	61 (29.2%)
Ophthalmology	22(10.5%)
Dental and Maxillofacial	27 (12.9%)
Ear, Nose, and Throat	26 (12.4%)
General Surgical	21 (10.0%)
Length of the clinical rotation (n, %)	
01 weeks	96 (45.9%)
02 weeks	113 (54.1%)
Number of participants absent from the clinical rotation (n, %)	
No	207 (99%)
Yes	2 (1%)
Repeated clinical rotation (n, %)	
No	209 (100%)
Yes	0 (0%)

Testing of the V-CLEI's psychometric properties

Reliability: The first Inventory was completed by 209 students, indicating that a sufficient quantity of items was finalised to assess the instrument's construct validity. The primary objective was to evaluate the instrument's reliability; hence, Cronbach's coefficient of reliability was computed for each V-CLEI subscale. Cronbach's alpha was calculated to be .88 for all 50 variables encompassed in the V-CLEI. A significant disparity was seen in the Cronbach's values of the six separate subscales, varying from .19 to .75 (refer to Table 6.6 for additional information). A Cronbach's alpha value below 0.70 is deemed acceptable for this subjective scale; hence, the reliability of subscales 1 (Affordances and Engagement) and 2 (Student-centredness) was evaluated as strong, with values of 0.75 and 0.74, respectively.

The score of 0.60 on Subscale 3 (Enabling Individual Engagement) was below the established level. The dependability of this subscale mostly persisted after the systematic elimination of items from the scale. Subscale 5 (Fostering Workplace Learning) exhibited a value of =.66, which is below the acceptable threshold, and this value remained unchanged despite the removal of any items from the scale. The reliability of subscale 6 (Innovative and Adaptive Workplace Culture) was shockingly low, with a recorded value of .58, and the removal of individual items similarly did

not enhance the score. The dependability of the fourth subscale, "Valuing Nursing Work," was the lowest, with a coefficient alpha of merely 0.19. The value increased to 0.23 upon the removal of item 10; nonetheless, this remained significantly below the acceptable threshold. The reliability of subscales including b-items, which are linked to preceptors, did not improve upon the removal of these b-items. Multiple experimental modifications were attempted, including the elimination and merging of subscales; nevertheless, these changes did not enhance the overall coefficient to an acceptable level.

Table 4:V-CLEI: Internal consistency reliability measure.

	Cronbach's α	Cronbach's α (without *b*-items)	The modified CLEI (original English version)
Subscales			
1. Affordances and Engagement	.75	.75	.88
2. Student-centredness*	.74	.69	.88
3. Enabling Individual Engagement	.60	.60	.65
4. Valuing Nursing Work	.19	.19	.57
5. Fostering Workplace Learning*	.66	.59	.67
6. Innovative and Adaptive Workplace Culture	.58	.58	.50
Overall	.88		

Note. * Subscales consist of *b*-items (preceptor items).

DISCUSSION

Learners' preparation before graduation is on the rise, according to this study, with some variance among domains, individuals, and time points, but generally on the rise. This is the first quantitative longitudinal study that The Researcher are aware of that measures the change in medical students' preparedness from undergraduate to postgraduate. While there are a number of cohort studies that measure the same thing, most of them only look at the undergraduate or graduate years [35–38]. This study lends credence to the idea that additional subjective indications, such one's sense of professional identity and one's experience working in a team, are related to readiness for practice. The study also showed that objective learning outcomes, like clinical rotation marks, are associated with subjective endpoints, such survey findings and self-reported prior academic success. It is believed that heightened sentiments of self-efficacy are associated with preparedness [19,20], which

encompasses all facets of capacity. The present research provided more evidence of the link between readiness and other subjective measures. Put simply, students' sense of self-worth as doctors and their sense of belonging to the medical team were both enhanced by the level of preparation they felt. In the long run, the learner's supervisor and other members of the medical team may be impacted by the positive feedback loop that the aforementioned association produces. This helps to clarify the relationship between readiness and the average clinical rotation mark, which is one of the outcomes of objective learning. The rotation mark includes the supervisor's subjective assessment to a certain extent.

CONCLUSION

Beyond the professional level, a large percentage of students develop sympathy for their patients. Along with their loved ones, they get to know the people that search for them. While it's understandable that doctors and nurses feel empathy for their patients' problems with illness, it's also important for them to avoid taking their patients' pain too personally and risk burnout. Much of what is taught about empathy in medical school is based on behavioural aspects. Students gain practice interacting compassionately with patients through role-playing.

Despite the lack of evidence for LEAP's effectiveness as an empathy training approach, this study does lay the groundwork for future research on similar topics. It is feasible to reversal the downward trend of emotional intelligence that typically occurs over a professional career. By incorporating LEAP alongside other humanistic medicine courses, medical schools can offer their students a more holistic education in empathy. While in LEAP, students engage in ongoing communication with a real patient, they also learn about empathy and patient-centered activities in the classroom. Students are not only exposed to the medical field, but they also have opportunities to actively engage in the process of cultivating empathy. However, a growing number of medical schools are incorporating patient-centered learning into their curricula, and LEAP is a great example of this trend. The importance of empathy in healthcare and the doctor-patient connection is being covered in more classes.

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