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A daunting challenge for medical schools: The decline of clinical skills

Research Objectives

Dr Faustinella's work aims to promote the most critical and challenging aspect of medical education: the teaching of clinical skills.

Detail

Bio

Dr Faustinella is currently associate professor of medicine at Baylor College of Medicine, Houston, TX. She obtained a medical degree at the University of Perugia Medical School and a PhD degree at the University of Florence Medical School, in Italy. She has distinguished herself for extensive contributions to research, teaching, patient care and education.

Collaborators

Robin J Jacobs – PhD

References

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Personal Response

What can medical schools do to halt the decline in clinical skills?

// The fundamental issue is that medical schools often create an environment which does not foster the teaching of bedside clinical skills. Many schools value funded research and sub-specialties which bring in high-revenue patients as their greatest assets, while teaching and primary care, both critical to the development of solid clinical skills, are marginalized and often at the bottom of the prestige ladder. Clinician-educators are essential to the success of medical schools, but they appear to be profoundly undervalued. Many are overloaded with clinical work and are given limited protected time for education, causing frustration and lower levels of job satisfaction. Loss of clinician-educators from medical schools is becoming a worrisome trend and generates a vicious cycle leading to further deterioration of the quality of clinical training. Medical school administrators should consider investing resources in support of clinician-educators, by providing them with protected time, training opportunities, financial incentives, academic rewards, promotion and recognition. //

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Medicine

A daunting challenge for medical schools:

The decline of clinical skills

Dr Fabrizia Faustinella, a faculty member at Baylor College of Medicine, Houston, TX, believes that the most significant challenge currently facing medical education is the decline in clinical skills. Dr Faustinella argues that a deterioration in skills such as history-taking and physical examination can have serious consequences, and must be addressed as part of a thorough, patient-centered approach to medical education.

Medical education faces many challenges. Some, such as mounting economic pressures, are common to most fields of education. Others are unique to medicine and can pose problems for both learners and educators. Balancing workload with patient safety, integrating scientific principles with an evidence-based approach, focusing education on wellness and disease prevention, fostering a team-based, patient-centered approach to patient care, increasing diversity and cultural sensitivity and adequate faculty development are just some of the many challenges that medical education must confront and address.

THE DECLINE OF CLINICAL SKILLS

Dr Faustinella believes that the most central and significant challenge currently facing medical education is the decline in clinical skills.

Clinical skills include the ability to properly and thoroughly record patient histories and to carry out appropriate physical examinations. Researchers have found that doctors can gather between 60-80% of the relevant information for a diagnosis from taking

a patient history alone. In more than 70% of cases, the information gathered during the medical interview leads to a final diagnosis.

Studies show that inaccurate or incomplete histories are a major cause of diagnostic errors, which can lead to delayed or inappropriate treatment. Effective communication during the interview also fosters the development of a positive relationship between doctor and patient, which is shown to ultimately lead to better medical outcomes. It is, therefore, essential that medical students develop strong history-taking skills, as well as physical examination abilities. Together with the medical history, the physical examination aids in determining the correct diagnosis and developing an appropriate treatment plan.

Dr Faustinella suggests that the observed decline in clinical skills is a multi-factorial phenomenon. Attending physicians and students are often pulled simultaneously in different directions, leaving less time available for bedside rounds and teaching. There is also increased reliance on diagnostic tests and a greater proportion of time spent at the computer compared to time spent with the patient. These factors are linked: it is quicker to order an echocardiogram than to attempt to diagnose a heart murmur with a stethoscope. Similarly, it takes less time



to order a CT scan rather than thinking about the possible cause of a patient's symptoms. Important educational tools, such as clinical reasoning exercises and small group workshops, are neglected in favour of larger group teaching using technological aids, which require less faculty involvement and are more cost-effective. The ever-present time pressure endured by learners and physicians alike has led to what some researchers have described as clinical practice "by algorithm," a one-size-fits-all approach that is less time consuming than the individualised care of bedside medicine.

Poor clinical skills may also be a product of too little clinical experience during training. Without enough clinical exposure, students and residents may struggle to identify which parts of the history and examination are most crucial to achieving a diagnosis.

REAL-WORLD CONSEQUENCES

Dr Faustinella illustrates her concerns by drawing upon her personal experiences. In one instance, a patient admitted to the hospital from the emergency department in the early hours of the morning was assessed as having



examination. The ECG was normal, but the nurse noticed a rash on his chest, consistent with shingles caused by the Herpes Zoster virus. The ECG had been completely unnecessary. These cases, among many others observed by Dr Faustinella, clearly demonstrate the real-world consequences of a decline in clinical skills. When history-taking and physical examination are insufficient – or skipped entirely – and are associated

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a "fever of unknown origin." When Dr Faustinella later examined the patient, she found clear signs of cellulitis (a bacterial infection of the deep skin layers). It transpired that the resident and student assigned to the patient, pressed for time, had not turned on the light during the physical examination, and therefore did not see the tell-tale signs of a potentially serious condition. In addition, the patient did not speak English. This situation, in a busy department with a patient who needed assistance with communication, led to inadequacies in both history-taking and physical examination.

In another case, Dr Faustinella observed a resident order an electrocardiogram (ECG; a test that checks the heart's rhythm and electrical activity) in a 48-year-old man with severe chest pain, without first either taking a history or carrying out a physical

with inadequate knowledge and medical problem-solving skills, the results can include delayed diagnosis, needless testing, and potentially harmful treatment with life-threatening consequences for patients.

THE SOLUTION

Dr Faustinella believes that the successful teaching of clinical skills is a critical aspect of medical education. Medical schools are under pressure to focus on income-generating activities, such as clinical work and funded research. Teaching activities and primary care services, both of which are vital to a thorough clinical education, are forced ever further down the list of priorities. Often, these factors, coupled with a lack of recognition, drive experienced clinician-educators to leave medical education for other jobs.

Greater investment in clinical skills education would help medical schools to retain the best clinician-educators and allow more time to be devoted to the teaching of bedside skills. In this patient-centered approach – where bedside skills and the doctor-patient relationship are given as much attention as scientific and technological tools – the patient is both the focus of the diagnostic process and the key educational tool for the medical student. The result would be doctors who are better prepared to gather information, reducing misdiagnoses and medical costs, optimising treatment, and improving the doctor-patient relationship, ultimately leading to enhanced health in the general population. It is undeniable that better medical education leads to better patient care, and better patient care saves money and, most importantly, better care saves lives.

Dr Faustinella also believes that poor clinical skills lead to a loss of the immense value associated with talking and listening to the patient, taking a thorough history and performing an accurate physical exam. This is how the physician establishes a rapport of trust with a patient – a relationship that is based not only on transparency and respect but also on shared humanity. Developing appropriate clinical skills will ultimately foster compassion and bring back humanism in medicine.



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