

# Virtual Mentor

American Medical Association Journal of Ethics  
July 2009, Volume 11, Number 7: 498-501.

## CLINICAL CASE

### Should Medical Education Fight International Brain Drain?

Commentary by Scott Barnhart, MD, MPH

Dr. Patel was the dean of admissions at a medical school in India. He noticed an increase in applications from American citizens of Indian descent, many of them mentioning in their personal statements their wish to connect with their roots and help Indian citizens by providing health care. These prospective students were also willing to pay full international student tuition, which would help the school during a tough economic time.

While some students qualified for admission, Dr. Patel noted that many of them did not submit MCAT scores or had lower-than-average GPAs compared to those admitted to U.S. medical schools. He knew that admission to U.S. medical schools was highly competitive, and wondered whether these students were unsuccessful in applying to them or whether other reasons prompted the students to apply to his school in India.

Dr. Patel was also concerned about using scarce resources to subsidize an American citizen's education. Even though Americans would pay international student tuition, his medical school still received a large portion of its budget from the Indian government. Although every medical student was obligated to serve in a public hospital to "pay back" the government, the requirement was only for 1 year of postgraduate internship. To Dr. Patel, that seemed like very little compensation to the people of India for the effort of educating a doctor. Moreover, the U.S. students were financially able to return home even before performing the year of service, and preventing them from doing so cost too much time and money. Indeed, Dr. Patel expected that most U.S. medical students would return to the United States for residency in order to be able to continue to practice medicine.

## Commentary

Medical care has never been able to offer so much. It is for this reason that health worker shortages and attendant limitations in access have garnered much attention. The issues raised in this vignette are germane to all health workers including physicians, nurses, and other health care professionals.

Providing access to effective care means aligning many resources including physicians, nurses, adequate facilities, and needed treatment modalities such as drugs and procedures. Physicians play an important role because of their knowledge in diagnosing and treating illness and injuries. Licensure to practice medicine restricts certain privileges such as the prescription of drugs and performance of many

procedures to physicians, giving the profession a near monopoly in controlling access to care. This control carries with it professional obligations, namely the duty to respect patients and deliver competent care.

While there are many examples of physicians who provide care under difficult and dangerous conditions, there are also those who put their personal interests first. The migration of physicians to certain specialties or to wealthier nations illustrates the interplay between patients' access to care and physicians' personal interests and alerts policymakers to the fact that physicians and other health workers often allow income and lifestyle considerations to determine their choice of the "greenest pasture" [1-8]. Using the United States as an example, medical students are not seeking primary care residencies despite shortage of primary care physicians but are seeking residencies such as emergency medicine, anesthesiology, and radiology that favor income and lifestyle [8].

The migration of physicians can occur in response to geographic preferences as well as in favor of specialty choices. India has been cited as the largest provider of foreign-trained physicians to the Organization for Economic Co-operation and Development (OECD) states where incomes are far higher than in India. Factors such as higher income in OECD countries are sometimes known as "pull" factors because they draw health care workers toward the OECD [3]. Similarly, there are "push" factors in India such as poor working conditions, substandard facilities, unsafe conditions, and low income that discourage health care workers from staying.

Given this acknowledged state of affairs, how should Dr. Patel approach his decision about U.S. applicants? First, this is where a mission statement can be of great use. What is the mission of this medical school, or, more concretely, what was promised to the Indian government in exchange for support? If the mission is simply to train physicians, then accepting American applicants is not problematic in this narrow context. If, on the other hand, the goal is to train physicians to serve the people of India or advance the health of the public, accepting applications from Americans is well outside the limits. If there is no shortage of physicians in India and little to be gained by adding more, Dr. Patel can turn his attention to other factors.

Improved maternal, child, and infant survival is associated with the density of health care workers [6]. The World Health Organization estimates a minimum of 2.3 health workers (doctors, nurses, and midwives) per 1,000 patients is necessary to meet basic health needs such as attended deliveries. India has 1.9 doctors, nurses, and midwives per 1,000 patients, falling well below the minimum threshold. Total expenditures for health in 2003 in India were \$27 per capita compared to \$5,700 per capita in the United States and roughly half that amount in other OECD states [6]. The disproportionate distribution of health workers and funding for health care is illustrative of factors important to physician migration.

Health worker migration is a major contributor to shortages [1-6]. Migration includes within-country migration—especially pronounced among physicians—where health

care professionals move from rural to urban areas. As a result, the few remaining physicians are often clustered in urban areas. Emigration of physicians out of country is also a major drain on physician supply. Sub-Saharan Africa has trained 82,000 physicians, of which 18,500 physicians, or 23 percent are working in OECD states [6]. India is said to be the biggest exporter of physicians; Indian physicians account for 5 percent and 10 percent of American and British physicians, respectively [5]. In one Indian medical school, the All India Institute of Medical Sciences, 54 percent of graduates reside outside India [1]. In fact, some medical schools view the migration of graduates with pride, believing it is a testament to the quality of education.

Health workers migrate for many reasons, but remuneration, safe environments, living conditions, and adequacy of clinical facilities are important drivers. As we move toward a global economy, it is clear that more health workers are able to and will migrate. Physicians are often required to provide care in-country for a specified period after medical school, but long-term periods of mandated service are felt to be neither viable nor respectful of individual rights. Instead, retention efforts must focus on strategies that directly address the push and pull factors cited above to promote retention.

The crux of the question facing Dr. Patel, assuming there are not specific contracts or mission statements, is not simply whether American applicants should be accepted, but what is in the best interests of the health of the people of India. Medical schools exist specifically to train physicians, but in the larger perspective, medical schools are training a cadre of health workers who must work to promote health within a given system. As has been demonstrated in Kerala, India, where life expectancy approaches that of the United States and exceeds that of African Americans, health is related to access to housing, jobs, education, and medical care [9]. Medical care is but one determinant of health, with social and behavioral determinants being equally if not more important. Dr. Patel must take a leadership role in defining and promoting the medical care-related and social and behavioral factors that lead to good health.

On the medical care side, Dr. Patel should work to increase the number of graduates who fill the pipeline to his state and nation. The case that applicants from America will fill the pipeline of physicians for India is a flimsy one. Dr. Patel should also consider access to *competent* health workers. When appropriate, such as in the setting of sufficient competency in lesser-trained cadres of health workers (e.g. nurses and health officers), he should support strategies such as task shifting that promote greater access to care for patients.

Equally important is Dr. Patel's leadership in advocating for change in the health system to ensure that the factors which push physicians to migrate are addressed. Physicians, like other health workers, need adequate remuneration, safe working conditions, reasonable lifestyles, respect for their professional expertise, and adequate clinical facilities. As members of a profession trained with direct and indirect subsidies of public money and one that enjoys protected control over who

gets medical care, physicians must be mindful of the tremendous professional responsibility they have to ensure patients' access to safe, effective, and efficient health care.

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