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"Social Engineering" versus "Medical Patriotism": What Flexner Can Teach Us about Solving the Primary Care Crisis

Eliza C. Miller, MD

State University Medical School's explicit, community-based mission is to educate primary care physicians for its home state, which comprises mainly small towns and rural areas.

As its fortieth anniversary approached, State U. Medical School administration reviewed alumni data and realized that the school had not come close to fulfilling its mission. The school required those who received financial aid to complete residency in a primary care specialty within the state. If they did so—and most did—their loans were forgiven. But the alumni data showed that, over the years, an average of 60 percent of residents had gone on to fellowships in subspecialties immediately after residency, and many of those had moved out of state to practice.

As a corrective to this "mission slippage," a new policy for state-funded loans and privately funded scholarships was proposed such that students who declared their interest in practicing primary care in the state and received full tuition from state or private sources had to practice primary care in the state for 10 years after completion of their residencies to repay the cost of their medical education. There was a sliding repayment scale based on service increments of 1 year for those who practiced primary care in-state but did not fulfill their 10-year service agreement.

Several of the school's private funders objected to the proposed policy; at least one was outraged.

"I've always supported our mission," he said, "but this new policy is coercive. It's social engineering, is what it is. Flies in the face of everything this country and this state stand for. When my grandfather came to this state in the early part of the last century, a man could make his living any way he wanted to, long as he didn't break the law."

"What's worse," the funder continued, "is that this policy hurts the middle- and low-income kids. The rich kids don't need our support, so they can practice anything they want, anywhere they want."

Response

I entered medical school planning a career in primary care, either general pediatrics or family medicine. A few months ago, I graduated into my chosen specialty: neurology, possibly subspecializing in neuro-oncology. But should this career decision be made solely on the basis of my personal preference? Does my country need another neuro-oncologist? Should specialty mix be determined by the needs of the public? What role should the state play in influencing the career choices of future physicians?

In 1995, the World Health Organization defined "social accountability" for medical schools as "the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve" [1]. The concept was hardly new; Abraham Flexner articulated it in the famous 1910 report to the Carnegie Foundation that sparked a sweeping reform movement in United States and Canadian medical education. In that report, he noted that "the interest of the public is to have well-trained practitioners in sufficient number for the needs of society" [2], adding: "if… medical education is a social function, it is not a proper object for either institutional or individual exploitation. Society ought to provide means for its support according to the best light attainable" [3]. And indeed, society does support medical education: Medicare paid out $9.5 billion in 2009 to subsidize U.S. residency training [4]. This is, of course, in addition to government-sponsored programs designed to encourage medical students to enter primary care practice in underserved areas, such as the program described at State University School of Medicine in the offered scenario.

Government subsidy of medical education rests on several fundamental assumptions. First, that the training of doctors, along with concomitant investment in medical research, is necessary for the public good, and will ultimately result in better health for the public. Second, that physicians are inherently honorable and moral people, as evidenced by their avowal to the Hippocratic Oath, which includes in its original version a clause to "preserve the purity of my life and my art" [5]. Presumably, a physician's moral obligation is to put the health of the patients and communities he or she serves before such mercenary concerns as personal wealth or prestige. Flexner termed this "medical patriotism," defining it as "that sort of regard for the honor of the profession and that sense of responsibility for its efficiency which will enable a member of that profession to rise above the consideration of personal or of professional gain" [6].

Unfortunately, however well developed the morals of physicians in training, we have not demonstrated a tendency to put the public health before our personal concerns when it comes to specialty choice. Hauer et al. showed that only 2 percent of graduating fourth-year medical students planned a career in general internal medicine; most students were drawn to subspecialties due to factors such as income potential and perceived "controllable lifestyle" [7].

Subsidized tuition assistance and loan-forgiveness programs, such as the one described at State University School of Medicine, offer incentives to students who commit to practicing primary care in an underserved area. The programs are similar in concept to the scholarships offered to students who agree to serve in the military after medical school. The state makes an investment in the student; the student agrees to repay this investment with service. If the student defaults on this agreement and chooses to pursue a different career path, the debt must be repaid with interest. The described program is unusually flexible in that it offers sliding-scale repayment terms based on the number of years of service the physician is willing to provide. In contrast, the federally funded National Health Service Corps program, which offers students full-tuition scholarships and stipends during medical school in exchange for a year-for-year service requirement in an underserved area, holds students who default on their commitment liable for damages equal to three times the scholarship funds awarded, plus interest [8].

The private funder described in the scenario objects to the proposed arrangement on the grounds that it is "social engineering." The *Oxford English Dictionary* defines that term as "the use of centralized planning in an attempt to manage social change and regulate the future development and behaviour of a society" [9]. By this definition, the funder is correct; the state is attempting to enhance access to primary care, thus improving the future health of its citizens, by influencing the behavior (in the form of specialty choice) of medical students. However, the state is hardly using coercive measures; the students in question are free to take on private loans or to repay their state loans if they change their minds.

Does this policy disproportionately target low-income students, as the objecting funder claims? Rare is the medical student rich enough to simply write a check for the hefty tuition bill, and banks are only too willing to make loans to any student gaining admission to medical school. Rosenblatt et al.'s large 2002 study found that 83.5 percent of graduating medical students were in debt, incurring an average debt load of more than $100,000 (the maximum load was more than $450,000). Interestingly, while a larger proportion of minority students were in debt, the debt load exerted only a mild influence on specialty choice. Minority students and women were more likely to choose primary care careers, and, notably, larger debt loads were actually associated with a higher likelihood of choosing to work in an underserved area [10].

In sum, debt does not appear to be a major determinant of a medical student's specialty choice; the poor student who is determined to become a surgical subspecialist will have ample opportunity to repay these loans, no matter how high the interest rate. Rosenblatt's study implies that, while government policies addressing student debt may help low-income students who wish to enter primary care, such policies are unlikely in themselves to address the shortage of primary care providers. On the other hand, medical school selection policies that focus on racial diversity may be more likely to produce physicians who aim to practice in underserved areas.

The argument that State U.'s proposed policy "flies in the face of everything this country and this state stand for" warrants discussion. If we regard the physician as an entrepreneur, motivated primarily by profit, then policies that encourage less-profitable specialty choices like primary care would appear to discourage free enterprise. If we view the physician as having a primarily social mission to care for the public health, supported by the state, then we may disregard this argument. Unfortunately, the role of the physician in this regard is far from clear. While the United Nations has defined health as "a fundamental human right indispensable for the exercise of other rights" [11], recent debates on health care reform in this country have confirmed that Americans are profoundly ambivalent regarding their government's role in guaranteeing health care for all.

Let us consider an extreme example of the sort of government "social engineering" of a primary care workforce to which our funder objects. In Cuba, a communist nation, medical education is completely free, but a physician's salary is relatively modest, only about 1.5 times the average Cuban worker's salary [12]. Since the tightening of the U.S. trade embargo in 1992 (the "Torricelli Bill"), Cuba has contended with a severe shortage of medical supplies and equipment. Initially, this resulted in a decline in the nation's health, but Cuba responded with aggressive implementation of a highly structured national primary care system. Each neighborhood has a family medicine clinic with a doctor responsible for the immediate area. Specialty services are available at regional "polyclinics," which encompass several neighborhoods. Nearly two-thirds of medical school graduates in Cuba will practice family medicine at one of these clinics [13]. Furthermore, the medical education system, including the internationally acclaimed Latin American School of Medicine (ELAM), focuses on training doctors from around the world to provide primary care in underserved regions with limited resources (including communities in the United States) [14]. The public health results of Cuba's efforts have been impressive: Cuba boasts the highest life expectancy and lowest infant mortality rates in Latin America, with rates comparable to most developed countries (including the United States). This is despite health care spending in 2006 of only $355 per capita, 7.1 percent of the gross domestic product (GDP); by comparison, the United States spent $6,714 per capita, or 15.3 percent of the U.S. GDP, in that year [13].

Cuba gives us an example of "social engineering" at its most radical: a communist society where the individual's right to "make his living any way he wanted to," as our funder put it, is completely disregarded. It does indeed fly in the face of systems our country has long embraced, namely capitalism and free enterprise. This "social engineering" has proven remarkably effective, however, in providing access to high-quality primary care services to every Cuban at a very reasonable cost to the government.

State University's admissions and funding policies are hardly comparable with communist Cuba's. Nevertheless, arguments concerning these sorts of policies must ultimately address the question of what we consider to be the role of government in

our health. If we agree with the United Nations that health is a human right, we must support it with broad government policies to create equal access to care for all people. These policies must necessarily address the forces that move physicians-in-training away from primary care and towards lucrative (but costly to society) subspecialties. Thus, it is entirely justifiable to design programs that reward primary care physicians with financial incentives.

Rather than "social engineering," I would argue that medical school policies aimed at recruiting physicians into primary care address the WHO's call for "social accountability." Policies like these, while unlikely to solve the primary care problem, offer at least a starting point for those students who want to serve their communities but find it hard to swallow the cost of their education. Moreover, the policy outlined in State U.'s proposal is remarkably accommodating to students who change their minds later in their training, offering an "opt-out" pathway to those who (like myself) come into medical school planning to be a primary care doctor, but become interested in another specialty along the way.

The United States' current approach to health care is untenable, both financially and from a public health standpoint. Social accountability is no longer a matter of *noblesse oblige*, if it ever was. But the WHO notwithstanding, the word "social" has become something of a bugaboo in today's political environment. Perhaps our funder who professes such a deep love for his state and country's ideals would prefer a return to Flexner's terminology. "Medical patriotism" has a certain "duty, honor, country" ring to it. The publication of Flexner's report led to a massive restructuring in medical education and health systems, based on the needs of society at the time. I propose that as we face the next mammoth restructuring task, we return to contemplate Flexner's own words. He writes:

> The physician is a social instrument. If there were no disease, there would be no doctors…. Practically the medical school is a public service corporation. It is chartered by the state; it utilizes public hospitals on the ground of the social nature of its service. The medical school cannot then escape social criticism and regulation…. Such control in the social interest inevitably encounters the objection that individualism is thereby impaired. So it is, at that level; so it is intended. The community through such regulation undertakes to abridge the freedom of particular individuals to exploit certain conditions for their personal benefit. But its aim is thereby to secure for all others more freedom at a higher level [15].

Flexner was no Fidel Castro: he believed firmly in democracy and personal liberty. But his report reads as radical today, as much a call to action, as it was 100 years ago. To the outraged funder of State U. Medical School, I say: history sides with the state.

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Eliza C. Miller, MD, graduated from Columbia University College of Physicians and Surgeons in May 2012 and is a first-year resident in neurology at Columbia University Medical Center in New York City.

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