UNIVERSITY OF CALIFORNIA SAN DIEGO

Curricular Opportunities and Constraints: The Incorporation of the Humanities and Social Sciences into Contemporary U.S. Medical Education

A dissertation submitted in partial satisfaction of the requirements of the degree
Doctor of Philosophy

in

Sociology

by

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The Dissertation of Lauren Dana Olsen is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

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DEDICATION

This dissertation is dedicated to my grandparents.

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FIELDS OF STUDY

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ABSTRACT OF THE DISSERTATION

Curricular Opportunities and Constraints:
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Drawing upon 90 in-depth interviews with medical educators and students from humanities, social sciences, and biomedical backgrounds at 37 medical schools, curricular and institutional data from an exhaustive set of all 137 MD-granting institutions, and observational data from national pedagogical meetings on medical education, I present findings on four different strategies that educators employ for incorporating the humanities and social sciences. I call the

first strategy of incorporation the foundational curriculum, where educators require all medical students to learn how the critical and interpretive concepts, theories, and methods that the humanities and social sciences offer are fundamental for their future clinical practice.

In contrast, the second strategy of incorporation is what I call the therapeutic curriculum, where educators give students the option of taking a humanities elective or extracurricular enrichment activity, while billing the humanities as a stress-reducing mechanism. The third curricular practice is the symbolic curriculum, where educators only integrate the social sciences in a bare minimum manner, like a week-long intersession on positivistic social science facts or exercises in the clinical skills course, the Practice of Medicine. The final strategy of incorporation emerges from the Practice of Medicine course, which I call the conscripted curriculum, and entails educators relying on students to teach each other the social science content by sharing their personal experiences as members of particular social groups.

These strategies of incorporation are enabled and constrained by field-wide pressures facing the medical profession: the problem of health and health care disparities, the crisis of student burnout, the need to respect the individual patient, the appeal of clinical relevance, and the social pressure to emulate other institutions. While most schools are heavily influenced by these cultural structures of opportunity and constraint, the few schools that resist these field-wide epistemic pressures have built up the organizational resources—or what I call the intellectual infrastructure—to sustain a foundational curricular practice. By having the funding, embracing the prestige, and hiring personnel adept at working across disciplines, these schools cultivate students who envision the humanities and social sciences as critical for their observational and interpretive decision-making processes as future physicians.

CHAPTER 1: INTRODUCTION

Classical sociological accounts of the medical profession showed how doctors gained power because they could more effectively understand and treat disease, and, because of this knowledge and power, patients were obligated to listen to them (Freidson 1970; Light 1988; Parsons 1951; Starr 1982). In the decades following this work—and the medical profession's continued rise in power—social sciences scholars have pointed to how physicians were enacting a mixture of both paternalism and a biomedical gaze in their interactions with patients (Cicourel 1981; Foucault 1963; Good 1994; Hafferty 1998; Rose 1992; Waitzkin 1991, 2000; West 1984). Rather than viewing their patients as persons with rich lives, clinicians often saw their patients as a set of body parts (Chambliss 1996; Nettleton 2004). Whether through detachment or gallows humor or specialization, medical students were learning practices to emotionally distance themselves from patients as a part of the function of their job (Becker et al. 1961; Fox 1957; Hafferty 1988). Further concerns were over how medical professionals disregarded the autonomy—and failed to see the humanity—of their patients (Cassell 1985; Childress 1982; Engelhardt 1986, 2001; Freidson 1970; Pellegrino 1985; Thomasma and Pellegrino 1981).

As the broader context of U.S. healthcare and knowledge production shifted, so, too, did the specific concerns raised over how physicians were supposed to act towards and treat their patients. With the Civil Rights movement, patients' rights mobilization efforts, and the accumulation of social scientific work documenting the vast inequalities in health and healthcare, by the start of the 21st century, scholars began drawing attention to how clinicians were ill-equipped to understand or address the social experiences of their patients, such as the impact race

has on shaping health and healthcare inequities (Beagan 2003; Good and Good 1989; Gregg and Saha 2006; Holmes and Pointe 2013; Jenks 2011; Montoya 2011).[1]

Despite the impressive quantity and impact of biomedical achievements in improving the morbidity and mortality rates of people in the U.S., the medical profession still confronts a litany of difficulties in trying to improve the health of its patients.[2] There have been many problems raised about the U.S. medical profession, centering on how clinicians need to be more humanistic, humble, curious, compassionate, empathic, and aware of social issues. And, in line with broader debates over the value of particular disciplines and bodies of knowledge (Arum and Roksa 2011; Di Leo 2013; Kuh 1999; Wieseltier 2013), academics and physicians alike have pitched the social sciences and humanities as the solutions to these problems (Charon 2001; Institute of Medicine 2001; Kleinman 1980; Wear 2003).[3]

Specifically, professional bodies like the Association of American Medical Colleges (AAMC) and the Liaison Committee on Medical Education (LCME) have encouraged the inclusion of the humanities and social sciences into the undergraduate medical education (UME), or the first four years of medical school, in hopes of equipping future doctors with the knowledge and skills embodied in this idealized physician (AAMC 2018; LCME 2018). In creating groups

[1] In a new case study series published in the New England Journal of Medicine at the close of 2018, a set of scholars committed to social medicine and structural competency diagnosed the medical profession with a problem: that despite the desire to address the social world in their clinics, clinicians "lack the understanding and tools for incorporating it usefully in into their diagnostic reasoning and therapeutic interventions" (Stonington et al. 2018:1958). They point to the social sciences as holding the theories and methods and argue that the AAMC has already advocated for the inclusion of these disciplines into medical education. These scholars created a new series within NEJM "to highlight the importance of social concepts and social context in clinical medicine." Their central aim is translational: "to translate these tools into terms that can readily be used in medical education, clinical practice, and health system planning." This new series is explicitly collaborative, as each article is coauthored by social scientists and clinicians.

[2] The health of people in the U.S. is characterized by the inequities that occur and accrue to people in socially marginalized populations only exacerbated by the inadequacies and complexities of the healthcare system (Diez-Roux and Mair 2010; Link and Phelan 1995).

[3] Often scholars conclude their analyses by pointing to the training of medical students. Zola (1973:686) for example, advocated for "more training in social and psychological sophistication" and Metzl and Hansen (2014:127) wanted to teach medical students to know how "social and economic determinants, biases, inequities, and blind spots shape health and illness long before doctors and patients enter examination rooms."

like a Task Force on the Humanities and adding sociology to the Medical College Admission Test (MCAT), the medical profession is, at the very least, signaling that it believes that these disciplines will help encourage future doctors to be more critically aware, attuned to the human condition, and knowledgeable about the social conditions that shape the lives of their patients and themselves (Kirch 2012).

Yet both sociological theory and historical precedent confirm that the implementation of curricular reform is not so straightforward. Curricular change has received limited attention relative to the rest of topics in the medical sociology canon (Anderson 2008; Bloom 2002).[4] Historically, medical sociologists have been pessimistic about the prospect of including humanistic and social scientific knowledge into medical education, based upon their own experiences of failure (Bloom 1988; Petersdorf and Feinstein 1981; Straus 1957; Wegar 1992). Many of the earlier critiques, like that of Straus (1957) and Petersdorf and Feinstein (1981), were based on experiences with incorporation efforts at their own institutions where they felt that there was a fundamental incompatibility between medical sociology and medical education centering on the individualistic, biomedical preferences of medicine.

Later research was based on analyses of the institution of medicine and the discipline of sociology. Bloom (1988) argued that because faculty at medical schools were rewarded for

[4] Most of the focus of U.S. medical sociology has been on the consequences of curricular content, instruction, and mentoring, rather than a focus on the debates and attempts around curricular change (Scambler 2009). Medical sociology has a rich body of literature on how doctors and patients have conceptualized the ideal doctor over the course of the medical profession's tenure (Balint 1957; Cicourel 1981; Parsons 1951; West 1984). Other studies have been largely concerned with the medical education curriculum—or hidden curriculum (Hafferty 1988)—as it stands, intent on showing the social processes by which medical students get transformed into medical doctors, and the resulting values that get imparted to them along the way (Becker et al. 1961; Berg 1995; Bosk 1979; Fox 1957; Good and Good 1989; Hafferty 1988, 1998; Holmes, Jenks, and Stonington 2011; Light 1978). Additional studies have focused on how doctors and doctors-in-training interact with patients, highlighting the inequality of the doctor-patient relationship (Cicourel 1981, 1992; Conrad and Schneider 1980; Foucault 1975; Parsons 1951), the reinforcement of biomedical and normative positions (Heritage and Maynard 2006; Raz and Fadlon 2006; Waitzkin 1991), and the permeation of social prejudices into the clinical encounter (Fischer and Todd 1983; West 1984). In addition, despite the arsenal of scholarship detailing how racial classification operates in biomedical research settings (Duster 2005), there is very little sociological work on the instruction of race in medical education.

research output rather than instruction, then they would never take teaching outside of their topical focus seriously. Light (1992) argued that the medicalization of medical sociology itself rendered it no longer able to critically appraise and recommend curricular change to medical educators. Thirty years after these studies, there are many manifestations of the humanities and social sciences in medical education, and we know very little about how they are integrated, taught, and valued, nor do we know the impact on medical student socialization.

In this dissertation, I present findings based upon my empirical investigation of how medical educators from diverse disciplinary backgrounds incorporate the humanities and social sciences into their curriculum at contemporary U.S. medical schools. As I will describe in detail in Chapter Two, the central data informing this study are interview data with a comparative sample of medical educators and students from biomedical, humanities, and social sciences backgrounds; curricular and institutional data from all MD-granting institutions in the U.S.; and observational data from national pedagogical and scientific meetings on medical education.

In contrast to the above accounts of complete failure, I find four different strategies of incorporating the humanities and social sciences into the medical school curriculum: the foundational, therapeutic, symbolic, and conscripted curricula. In general, medical educators value the humanities and social sciences for achieving the idealized physician *end*; however, clinical educators—educators with MDs—differ from educators with PhDs in the humanities and social sciences in their interpretation of the *means* to achieve this end. Due to field-wide epistemic and school-specific organizational factors, some schools incorporate the humanities and social sciences as the foundational curriculum, valuing the critical and interpretive knowledge that these bodies of knowledge possess, whereas most other schools end up subduing, reducing, and instrumentalizing the humanities and social sciences, as the therapeutic, symbolic, and conscripted

curricula, in ways that render the contributions of the humanities and social sciences quite meaningless.

In this introductory chapter, I begin by reviewing the historical and contemporary details that comprise the case of the humanities and social sciences being incorporated into medical education. I then describe the dominant discourse about the ideal physician, how that ideal physician should be trained, and how the humanities and social sciences factor into that training process. Next, I lay out the central question to be explained: how do some educators enact the foundational curriculum while most others do not? As a set of corollary questions, I also put forth explanations for why we observe three distinct variations of failure. To explain these strategies of incorporation, I turn to theoretical work on institutional change in cultural and organizational sociology. I conclude this chapter with a discussion of how these findings contribute to literatures on the valuation of knowledge and the socialization of medical students, points I will elaborate on more fully in the dissertation's conclusion.

SOCIAL AND HISTORICAL CONTEXT OF U.S. MEDICAL EDUCATION

To situate the contemporary inclusions of the humanities and social sciences, I will briefly review the social and historical context of U.S. medical education. In this section, I focus on the forces external and internal to the medical profession that pattern the cultural understandings and organizational practices surrounding the training of future physicians. I begin by depicting the professionalization of medicine starting at the turn of the 20th century and then end with a discussion of the changes that the medical profession confronted beginning in the 1960s and 1970s.

Establishing the Golden Age of Doctoring

The context of medical practice before the middle of the 20th century was characterized by assortments of health care practitioners peddling panaceas and elixirs, schools premised on an apprentice-model, and competing sects (Starr 1982). Due to the limits of biomedical knowledge and skill, physicians' work centered on palliative care and house visits; due to the cultural values of the U.S. population, patients were more self-reliant and skeptical of science (Starr 1982).

One of the most significant organizational principles of U.S. medical education is the fact that the modern medical school is first and foremost a researching enterprise, under the auspices of the university, and secondarily a place for teaching and clinical care (Light 1992; Ludmerer 1985; Starr 1982). At the turn of the 20th century, physicians began to ramp up their claims to legitimacy and patients' dependence upon their technical, specialized knowledge and expertise by adopting the German university-clinic-teaching model (Freidson 1970; Light 1988). The first institution of this type in the U.S. context was Johns Hopkins, which opened its doors as a modern medical school in 1893. The first scientific medical journal, the *Journal of Experimental Medicine*, was established in 1896. By 1906, 30 medical schools had at least one or two faculty engaged in research; by 1911, there were 60 schools with faculty conducting clinical research and 50 schools were subsumed under university leadership (Ludmerer 1985).

Therefore, by 1910, when the infamous Flexner Report hit the newsstands—with tens of thousands of copies and written in a muckraking journalistic style—momentum was already underway for medical schools to prioritize research.[5] However, in galvanizing public support and exposing institutions that did not meet his criteria of good facilities, clinical research faculty, and

[5] The Flexner Report, financed by the Carnegie Foundation and written by Abraham Flexner, surveyed the 155 medical schools in the U.S. and Canada that were in operation and recommended that all but 31 one of them close their doors because they were poorly managed (Flexner 1910).

administration to oversee the enforcement of admission and educational standards, Flexner effectively ushered in an era of medical school restructuring and reinvestment (Ludmerer 1985).[6] Private philanthropic foundations, such as the Rockefeller Foundation, Alfred Sloan Foundation, Mellon Foundation, and W.K. Kellogg Foundation, heavily backed medical schools wishing to execute the report's demands by building facilities to accommodate research and hiring more clinical and administrative faculty (Bloom 2002; Ruis and Golden 2008).[7]

One of the most pressing changes that occurred following the Flexner Report was the solidification of entrance requirements (Starr 1982). Medical students were now expected to have four-year Bachelor of Arts or Sciences degrees. As historian Kenneth Ludmerer (1985:115) writes, the central professional leaders representing the "American Medical Association and the American Academy of Medicine wanted the requirement for admission to be a college degree because the popular stereotypes of 'coarse and common doctors' could be readily combated if only *cultivated* persons were permitted to become physicians" (emphasis added). The desire for cultivated persons, which Ludmerer (1999) notes was reflected in the preference given to students who could pay tuition, came from prestigious families, and attended elite liberal arts institutions with coursework in English, foreign languages, politics, philosophy, mathematics, and biology, was tied to both professionalizing aspirations as well as the belief in what "personal characteristics" aided in the "production of caring doctors" (1999:77).[8]

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[6] One medical educator described the significance of the Flexner Report as achieving wonders for the status of clinical medicine: "soon a professor in clinical medicine became as respectable as a professor of classic literature at Harvard" (Tyler 1960:792). This opinion shows both what the Flexner Report was thought to achieve as well as how humanities professors were highly respected at the time.

[7] The Carnegie Foundation, which funded Flexner's 1910 Report, did not fund any medical schools following the results of the Report, due to the damning conclusions.

[8] From the 1920s through 1960s, in fact, medical schools were touted as being in the "hands of devoted, public spirited men" (Tyler 1960:92). In an address to the leaders of medical schools at the AAMC annual meeting, Warren Weaver, a philosopher and legal scholar who worked at the Alfred Sloan Foundation and Rockefeller Foundation, two foundations pivotal to the funding of medical schools in this time period, described the ideal physician in introducing his friend, Dr. Alan Gregg, MD: "There are several aspects of his character on which I wish to comment. The first is

While the "ideal" physician was indeed a "scientific practitioner," as Flexner (1910) wrote, science in and of itself was inadequate for the training of future professionals; physicians also need "insight and sympathy" and the knowledge that "directly or indirectly, disease has been found to depend largely on unpropitious environments… the physician's function is fast becoming social and preventative, rather than individual and curative" (1910:26). The ideal physician, according to Flexner (1910) and his contemporaries, was compassionate, understanding, dedicated, creative, and curious—in addition to being knowledgeable about the latest scientific concepts and technologies (Ludmerer 1985).[9]

While the ideal appeared to be something medical educators agreed upon, the execution of how, precisely, this ideal would be realized has been a source of perennial debate (Bloom 2002). In a Report of the Joint Committee on the Teaching of the Social and Environmental Factors in Medicine at the AAMC Meetings in 1946, the sides of the debate could be categorized into three positions: first, educators who believed that through formal instruction, future physicians could learn empathy, compassion, and social responsibility; second, educators who believed that this knowledge and these skills could only be role-modeled through clinical faculty when seeing patients; and, third, educators who believed that these qualities existed independent of—and prior to—medical education.[10]

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his interest in words and in writing. When he was a student at Harvard he wrote verse for the *Advocate*, and in his senior year, was editor of the *Lampoon*. His literary friends urged him to go into writing as a career; and the elegance of style, richness and precision of language, and fascinating content of the many essays and lectures which he produced, during his scientific career are ample evidence that he could have starred as a professional writer. He was very gifted in languages, and, in success, he mastered French, Portuguese, German, and Italian. He had an insatiable appetite for and delight in the right word" (Weaver 1960:314).

[9] It is important to point out, as Ludmerer (1985) does, that in his Report, Flexner (1910) draws heavily on Dewey's idealized program of progressive education, whereby students would learn a skill set to continuously learn and consume knowledge—and learn by doing.

[10] This debate taps into broader debates that have dominated the medical education field regarding the formal, informal, hidden, and null curricula. In general, the requirements that medical students must meet to receive their medical degree are contained in the *formal curriculum*, or the explicitly stated and designed materials and courses. Equally as deliberate as to what is included in the formal curriculum is what is not, what Flinders, Noddings, and Thornton (1986) have described as the *null curriculum*. Additionally, the *informal curriculum* captures the indirect

In fact, in relation to the third camp of this debate, as the medical profession tightened its standards as a part of this turn-of-the-20th-century process, it became more male, more white, and more elite (Light 1988).[11] Thus, the initial structure and composition of the modern U.S. medical school created opportunities for the appreciation of the social sciences and humanities, but in a manner that was tied to the very elitism that undergirded early- and mid-20th century medical schools. By and large, the medical educators of this time period agreed with the third camp in the debate about how to *cultivate* the ideal physician: the best way to cultivate a good doctor is to select already *cultivated* students. The expectation was the medical students were to be "men of letters" from prestigious universities, which meant that these men had undergone an undergraduate education in the humanities (Bagdley and Bloom 1973). This admissions-oriented approach is perhaps captured best by Harvard President James B. Conant's statement in 1939: "I realize that many deans, professors, and members of the medical profession protest that what they all desire is a man with a liberal education, not a man with four years loaded with premedical sciences" (1977:277). This value and expectation were further reflected in the MCAT section on liberal arts, "Understanding Modern Society," instituted in 1946 and lasting 31 years (McGaghie 2002).[12]

If one way in which the educators sought to craft this ideal physician was through admissions, the other was through UME curriculum. Regarding the humanities, by the 1930s,

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instruction that is modeled or facilitated by mentors and colleagues. The *hidden curriculum*, although it has been used as an analytical tool with differing definitions (Hafferty and O'Donnell 2015:10), is a concept illustrating the disconnect between what students are taught and what students learn. The hidden curriculum inheres in the medical school's spatial and technological infrastructure, distribution of power, policies, evaluative standards, allocated resources, and institutional slang (Hafferty 2000).

[11] This debate also taps into discussions about what makes elite institutions elite: their education or the students that matriculate into them (cf. Arum and Roksa 2011; Bourdieu and Passeron 1990; Karabel 2005; Stevens 2007).

[12] Integral to the medical school admissions process, the content within the MCAT constitutes a body of knowledge and skills that pre-medical students must master in order to be competitive applicants. Since 1928, the Association of American Medical Colleges (AAMC) has overseen the initial development and subsequent evolution of medical education, which begins when a prospective medical student is an undergraduate. The AAMC's interpretation of what it takes to be a suitable physician has been embodied in the Medical College Admission Test (MCAT), which has gone under six substantial revisions between 1928 and 2015.

UCSF and Johns Hopkins had departments of medical history within their medical schools, and 46 of the 77 medical schools contained curriculum on medical history in 1939 (Sigerist 1939). And, in less frequent cases, there were courses on philosophy, like one at a top-ranked institution in the 1950s described as an "analysis of the theoretical premises of medicine in terms of ontology" (Guttentag 1960:903). At a presentation on the humanities presented at an AAMC conference in 1960, one medical educator, Arragon (1960:908) argued,

> What do we want the doctor and man to be like? I shall try a list: the ability to reason critically and to reach sound, i.e., testable judgments on one's own; knowledge enough to be able to start thinking in various areas of experience and types of situation and to know what should be known as grounds for judgment; curiosity and imagination, to project one's thought into the unfamiliar to discover the new; sensitivity and sensibility, the sort of feeling that supports the imagination in understanding people and situations and in aesthetic appreciation; social attitudes and criteria of decision and of behavior based on a considered non-egoistic value-structure.

Arragon articulates a position in support of including the humanities in the curriculum, but by 1969, only 33 of 85 medical schools included history in the UME curriculum (Dolan 2010).

Dolan (2010) suggests that medical anthropology and the social/behavioral sciences replaced medical history from the ranks of medical education by the late 1970s. According to Chester Burns, a physician and medical historian, "just as social sciences had undermined the eminence of historical studies in collegiate education, they began to do the same for medical history in medical education after 1950" (1975:859).[13] Both Dolan (2010) and Burns (1975) are referring to the "behavioral health movement" in medical education, where social scientists from sociology, anthropology, and psychology attempted to integrate their knowledge into medical

[13] In a 1960 meeting of medical school leaders, they discussed how medical schools must build programs to capitalize on the rapidly increasing financial support for medical research—public dollars were $45 million in 1940 and $330 million in 1957—suggesting that they build up around new disciplines such as medical genetics and atomic medicine *as well as* include psychology, sociology, and anthropology in the medical school faculties, curriculum, and research programs (Willard 1960).

education in the 1960s, with the help of funding from the newly created National Institute of Child Health and Development (NICHD) and National Institute of Mental Health (NIMH).

One successful example of these kinds of attempts was enacted by sociologist Samuel Bloom and colleagues. They created a textbook and a casebook of sociology and anthropology for first-year medical students (Bloom, Kaplan, and Lhamon 1960:933), in which they taught the following concepts:

> (a) the scientific method as it applies to the study of human behavior; (b) culture as the matrix from which the form of the medical profession is derived, and the source of variable definitions of illness and value orientations toward the sick role; (c) social role, as applied to the patterns of expectation about how doctors and patients "should" behave in our society; (d) interaction process as the dynamic framework for viewing the doctor-patient relationship as a small-scale social system; (3) social institutions, as illustrated by recent studies of the social structure of hospitals.

Similarly, Ludmerer (1985) discovered in his historical investigation of medical school curriculum that, in general, before the 1970s, the social sciences were intertwined with the basic sciences.[14] He describes the general curriculum as "designed to familiarize students with the structure, function, and behavior of the human organism in health and disease, to acquaint them with the causes, physiological disturbances, and natural history of the various diseases, to provide an introduction to principles of therapeutics and surgery, and to present the environmental and social influences that affect health, illness, and recovery" (1985:66).

As Bloom (1973), Straus (1957), and others have argued elsewhere,[15] these efforts to incorporate the social sciences were not always smooth. In the proceedings from a 1970 NICHD

[14] This could be because social science and medicine in the U.S. were both dependent on European scholarly roots and the creation of the research university; both were also plagued by the "competing purposes of advocacy and objectivity" which had countervailing points of view and moral dispositions (Bloom 2002:4).

[15] These social science scholars have cited the following reasons why they failed to fully incorporate their knowledge into medical education: the structural prioritization of research over teaching within medical education (Bloom 1988); the symbolic value of rhetorically incorporating medical sociology while decoupling it from actual instruction (Wegar 1992); the fundamental incompatibility between medical sociology and medical education (Straus 1957); the medicalization of medical sociology due to its isolation from mainstream sociology (Light 1992); and the

meeting on the Behavioral and Social Sciences in Medical Education, the interdisciplinary group of social science scholars and clinical faculty highlighted the importance of the social sciences for clinical practice while also pointing to how the social scientists were marginalized.[16] In the document they produced, the social scientists said that they often suffered from "decorator syndrome," which is the feeling "to be invited and at the same time felt and experienced as a nuisance" (NICHD 1970:13). They said that a central barrier was that the physicians struggled with understanding abstract concepts and realizing the significance of the population and social level.[17] Many clinicians felt that they were so separate because they were appointed within departments like psychiatry, public health, or preventative medicine, which they noted confined the image and scope of their potential contributions.[18]

Before I focus on the series of external and internal changes that the medical profession faced starting in the 1970s, I'd like to summarize a few points from this earlier time period. First, the structure of the medical school was established in this period, with four years of UME and an organizational commitment to the primacy of research. Second, the biomedical sciences took on increasing importance, signaled by the premedical requirements of medical school admission and

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individualistic, biomedical preferences of the medical profession that doesn't value medical sociology (Petersdorf and Feinstein 1981).

[16] They enumerated the ways in which the social sciences would be important for future doctors: theoretical knowledge about human behavior; make students aware that the patient is a human being with a family, with feelings, with problems, with a job; look both at social factors as variables in disease processes and at the effect of disease processes on social structure and behavior; illuminate processes involved in patient/professional interrelationships; cast light on decision making processes in health care; identify social and cultural changes involved in technological development and innovations in medical practice; and shed light on the social and cultural values, norms, and ideologies of medical schools (NICHD 1970:7-11).

[17] In an article in the first issue of the *Journal of Health and Social Behavior*, Jaco (1960:29) depicted the relationship between social science and medicine as "more like a courtship, with marriage yet to be consummated" because medical subculture was inseparable of the American cultural tradition that does not view the individual as socially situated.

[18] As both Light (1992) and Bloom (2002) detail, it is no accident that medical sociology and medical anthropology in medical education were born out of social scientific alliances with psychiatry. The inclusion of psychiatry into general medical education and the increased funding of social scientific research and teaching by the National Institute of Mental Health jumpstarted the behavioral health movement in the 1960s (Mechanic 1990; Muller et al. 1984). Centrally, the medical profession found the social scientific and psychiatric insights into psychosocial components of human behavior to contribute to the strengthening of the doctor-patient relationship, or the "human relations side of medicine" (Bloom 1959:667).

UME instruction. Third, debates over what constituted an ideal physician and how to cultivate one in training included the humanities and social sciences in the conversation; these discussions showed an appreciation for the humanities and social sciences in a robust, abstract sense, in that most of the people having this conversation were, more likely than not, elite "men of letters" themselves (Ludmerer 1999).[19]

Countervailing Forces and the Medical Profession

Scientific advances (e.g., antisepsis, germ theory, antibiotics), diagnostic technology (e.g., x-ray, stethoscope, blood test), and specialization (e.g., inter-dependence) all contributed to further unifying the profession (Starr 1982). As the professional and cultural authority of the U.S. medical profession crystallized beginning in the 1920s and peaking in the 1970s, physicians enjoyed what was termed the "Golden Age of Doctoring," where their autonomy and power as healthcare providers reached its highest point. However, once the physicians got power, it did not take long for countervailing forces to check that power (Light 1988). To combat the consequences of the physicians' share of market power, other stakeholders and ideologies entered the healthcare system beginning in the 1960s, whether to defray rising costs (e.g., insurance companies, hospital administration) or advocate on behalf of patients (e.g, bioethicists, Medicaid/Medicare, consumerism), culminating in a curtailing of the power and paternalism that many physicians held (McKinlay and Marceau 2002).

From federal oversight to insurance and hospital administration, from patients' mobilization to Civil Rights' movements, in the 1970s the medical profession began losing their

[19] In other words, these medical "men of letters" had attended elite institutions of higher education and were well-read in literature, philosophy, history, political theory, in addition to having knowledge on the basic sciences that were undergirding the rapid rise of the medical profession (Ludmerer 1999:61).

dominance as they were subject to more standards, more surveillance, more patient consumerism, more ethical guidelines, and more democratization.[20] While these external sources of change impacted the doctor-patient relationship by shortening visits and giving patients more power, there were internal sources of change to the medical profession, too.

If the post-Flexner era was oriented around the standardization of education in a teaching-research-service model, the post-Golden Age era was oriented around growth of biomedicine at the expense of focusing on the general education of medical students.[21] Most significantly, rapid biomedicalization in the mid- to late-20th century fundamentally increased the amount of biomedical knowledge physicians could and should know (Clarke et al. 2003).[22] Buttressed by the increased economization of scientific knowledge production (Berman 2012, 2014), the body of knowledge undergirding the physical, engineering, and biological sciences grew, increasing the number of higher education institutions and accredited medical schools and entrenching the federal government's support of biomedical research.[23] Whereas in the 1930s the power to decide the direction of the medical school was consolidated with the university president, in the 1970s, there was a large scale administrative and bureaucratic expansion with the creation of deans, course

[20] In 1959-1960, women received 6% of medical degrees. By 1989-1990, their share of degrees increased to 34%, and by 2018 they held around 50%. With regard to race, in 1964, 97% of the medical profession was white, and by 2018, 52% of the profession is white (AAMC 2018). The AAMC does not publish comprehensive historical data on students' socioeconomic status, but in the AAMC Matriculating Student Questionnaire in 2017—which has a 50% response rate of the incoming cohort of medical students—of the 11,299 students who replied to the question about parental income, 33.3% of the students had a combined parental income of $200,000 and above, and 32.3% of the students had a combined parental income of $100,000 and above, figures which have been relatively steady over the last two decades (AAMC 2017).

[21] As Ludmerer (1999: 176) notes, as medical schools accommodated a diverse array of important activities in the latter half of the 20th century, medical students became their "forgotten members".

[22] Clarke and colleagues (2003) identify five key and overlapping processes that coproduced biomedicalization: (1) shifts in the political economy toward increased corporatization and privatization that enable the extension of biomedicine's reach; (2) shifts toward increased risk and surveillance technologies and discourses; (3) shifts toward the technoscientization of—or, introduction of computer and information technologies into—health care; (4) shifts in the development, circulation, and usage of biomedical knowledges; and (5) shifts in bodies and identities, themselves, as sites for biomedical colonization.

[23] For example, in 1960-1961, there were 86 medical schools, and 6,994 medical school graduates; by 1980-1981, there were 126 schools and 15,985; 2017-2018, there were 137 schools and 19,553 graduates (AAMC 2018).

directors, offices, departments, divisions, and units within the academic medical center (Ludmerer 1999:54).

The medical school entrance requirements changed in favor of more biomedical sciences and experience and less humanities and social sciences (Ludmerer 1999). A familiarity or fluency with humanities no longer was deemed essential for American physicians, signaled by the removal of this content from the MCAT in 1977 (Bloom 1988; McGaghie 2002). Moreover, fewer medical school initiates held degrees in humanities and social sciences fields because there were fewer of these college graduates, in general (Ferrall 2011).[24] Changes in clinical practice, too, challenged the grounding of the profession in the humanities and social sciences. At the same time that the introduction of managed care removed the "moral self-image" from the social identity of the physician (Engelhardt 2001; Haug 1988), initiatives at introducing humanistic values into biomedical research and practice were taking on more and more institutional and cultural importance with the professionalization of bioethics (Evans 2012). However, as Evans (2002) shows, the knowledge that was ultimately required was a "thin," reductionistic version of the kinds of humanities-based interventions the original debaters were proposing.[25]

[24] Academia—or the professional careers and research and teaching of academics in dozens of disciplines—has evolved over the course of the 20th century, too. Scholars from a variety of disciplines have written extensively about the crisis of the liberal arts in a market-driven era (Clark 1983; Donoghue 2008; Menand 2010). As leaders of institutions of higher education respond to market, student, and public pressures to become more economized and applied—emphasizing revenue generation, productive returns from research, and increasing the earnings of their graduates (Zusman 2005)—scholars argue that the traditional liberal arts' majors, curricula, and departments are in peril (Trow 2010). Faculty members in humanities and social science disciplines have experienced declines in the number of majors they obtain (Brint 2002), the required amount of time students spend in their courses (Arum & Roksa 2011), and the funding of their departments and research (Lewin 2013). As the leadership and students within institutions of higher education devalorized the liberal arts, they prioritized the "practical arts," or occupation-based fields of study such as nursing, business, or marketing (Brint et al. 2005:151-2). In turn, academics in the biomedical, computer, and engineering sciences have "dramatically increased the[ir] wealth and authority… relative to th[ose] in the social sciences and the humanities" (Stevens, Armstrong & Arum 2008:138).

[25] As an example of a "thick" use of the humanities that was abandoned (cf. Evans 2002), take the description provided by Pellegrino, a central figure in the rise of bioethics, who described the agenda for a "humanities in medicine" (1975:301), drawing upon the legacy of medical history in medical education: "The engagement of medical history with medical education is itself a model of the way humanities in general might be more effective in the university and in society… consistent with the tradition aim of the liberal arts—to liberate the mind from subservience to the ideas of others."

In sum, by the close of the 20th century, the external and internal changes to the medical profession manifested in medical education and at the expense of the inclusion of the humanities and social sciences in the following ways: First, there was a rise in basic and clinical faculty, as tied to the growth of the academic medical center, research funding for biomedicine, and the proliferation of healthcare, in general. Second, there was a rise in the sheer quantity of biomedical knowledge that physicians could know. And, third, there was a growing amount of critiques of the medical profession, waged by lay and academic circles alike.

THE IDEAL PHYSICIAN TODAY

At the start of the 21st century, even more crises came to the fore for the medical profession. The encroaching bureaucracy of insurance companies and hospital administration spawned a host of physician burnout problems and encouraged patient consumerism by evaluating physicians based upon the outcomes *and* satisfaction of their patients (Mechanic and McAlpine 2010). Not only was there a rise in patient consumerism, but there was also an increased recognition of patient diversity; physicians not only needed to be able to interpret lab results and physical symptoms, but they also needed to be able to effectively understand and communicate across cultures and languages (Betancourt 2002). Furthermore, physicians were becoming increasingly aware of the persistent health and healthcare inequities that their patients were facing across the U.S. and physicians' complicity in not addressing these problems (Smedley et al. 2003).

For example, in 1995, the regulatory bodies of the medical profession—in the case of UME, it was the LCME—institutionalized universal competences that each medical school must impart onto their students to receive accreditation. In 1999, Congress solicited a study from the Institute of Medicine to assess disparities. In the landmark report *Unequal Treatment*, the IOM

concluded that there were significant racial and ethnic disparities in health and health care (Smedley et al. 2003). Following this report, The Minority Health and Health Disparities Research and Education Act of 2000 amended the Public Law 106-525 to improve the health of minority groups. This act established the National Center on Minority Health and Health Disparities within the National Institutes of Health (NIH) to "conduct and support research, training, dissemination of information, and other programs with respect to minority health conditions and other populations with health disparities" (S. 1880: Section 101).

This Act established the creation of hiring protocols for minority students at schools of medicine, loan repayment by the federal government if physicians engaged in minority health research, the installment of centers for health disparities research in numerous universities in the United States, and the establishment of an evaluation and reporting mechanism for the AHRQ. Most importantly for medical education, however, was Title IV of the Act, which

> Authorizes the Secretary to award grants, contracts, or cooperative agreements to public and nonprofit private entities to carry out research and demonstration projects for training and educating health professionals for the reduction of disparities in health care outcomes and the provision of culturally competent health care. (S. 1880: Section 401)
>
> Directs the Secretary to: (1) convene a national conference on health professions education as a method for reducing disparities in health outcomes, including the role of education on cultural competence; and (2) publish conference proceedings and findings. (S. 1880: Section 402)
>
> Requires the (1) Secretary to advise in matters relating to the development, implementation, and evaluation of health professions education in decreasing disparities in health outcomes, including the use of cultural competency; and (2) Deputy Assistant Secretary for Minority Health to consult with specified officials for facilitating the exchange of information regarding matters relating to health information and health promotion, preventative health services, and education in the appropriate use of health care. (S. 1880: 403)

The medical profession fulfilled these mandates through changes to the LCME Standards, by including the Standard 7.6 requiring medical students to learn about health and health care

disparities, gender and cultural biases, common societal problems, among other things that I will describe in detail in Chapter Five (see Appendix B for verbatim LCME Standards). Further, in 2001, the National Standards on Culturally and Linguistically Appropriate Services (CLAS) were created by the U.S. Department of Health and Human Services Office of Minority Health (HHS-OMH).[26] Further acts at the federal level have institutionalized the goal of eliminating social inequities in health: the Minority Health and Health Disparity Elimination Act of 2007 (S.1576), the Minority Health Improvement and Health Disparity Elimination Act (HR3333), and the Health Equity and Accountability Act (HR3014).

Another manifestation of this awareness was yet another change to the MCAT. In 2008, the AAMC convened the MR5 Committee to conduct the fifth review and revision of the MCAT. The updated examination appeared in 2015 with four main sections. The first two test the applicants' knowledge and use of concepts in biology, chemistry, physics, biochemistry, cellular and molecular biology, research methods, and statistics. The second two test the applicants' knowledge, use, and critical analysis of behavioral and socio-cultural determinants of health, sociology, psychology, ethics, philosophy, cross-cultural studies, and population health. AAMC President Darrell Kirch announced the change, stating, "Being a good physician is about more than scientific knowledge. It is about understanding people—how they think, interact, and make decisions" (Kirch 2012:1).

Dr. Kirch's remarks about good doctors needing to understand people speaks to a broader movement within medical education in the last 20 years. Medical educators have vocalized the increased need for physicians to cultivate better communication skills, exhibit more

[26] Twenty-seven researchers working in tandem with the hired IQ Solutions, Inc. taskforce over the course of five years "undertook the development of national standards to provide a much-needed alternative to the current patchwork of independently developed definitions, practices, and requirements concerning CLAS" (CLAS 2001:1).

professionalism, understand the patient as a whole person, and be sensitive to a wide range of beliefs about health, illness, and treatment (Charon 2001; Kleinman 1980; Wear 2006). From inclusive medicine, clinical trials, and genomics, to cultural competence curriculum and community health initiatives, professionals in the healthcare sector have mobilized to address rampant health and healthcare inequities (Metzl and Hansen 2014). And with curricular initiatives such as medical humanities headed up by the Project to Rebalance and Integrate Medical Education (PRIME) at the AAMC, leaders in medical education hope to utilize the humanities to promote empathy, virtue, genuineness, and self-awareness (Doukas et al. 2010).

All of these accounts about the incorporation of the humanities and social sciences into medical education point to the notion that these debates about the ideal physician continue to recognize the educational potential of the humanities and social sciences, as they have for the past century. There is the notion that an ideal educational outcome for a prospective physician exists, and, in turn, that there is an idealized incorporation of the humanities and social sciences to achieve that end. Many of the concerns of mid-20th-century curricular debates about the inclusion of the humanities and social sciences are similar to today's concerns, generally centering the profile of an ideal physician as a physician who must know the social context of their patients and hone their critical, interpretive, and observational knowledge and skills for the clinic.

As I will show in detail in the four empirical chapters in this dissertation, many of my respondents also shared in this appreciation for the humanities and social sciences in cultivating the ideal physician. In one presentation at an AAMC annual meeting that I observed in 2015, an educator pointed to the impulse driving why the humanities and social sciences should be included, due to the "democratizing implication of the humanities and social sciences. We must situate the medical profession within broader social-political relationships." The goal of the humanities, in

general, and literature in particular, he went on to elaborate, was so future physicians would have "strategies of describing, word choices, arguments for history taking, techniques to ground theories in visual clues, tools to critically examine how they get drawn to characters and how they think about stereotypes." With the social sciences, as Dr. Warner, one clinician and anthropologist at a top-ranked medical school that I interviewed, told me, the goal of incorporation is so future doctors can "understand that what we think we know may change because it is historically and socially situated." Or, as another clinician and Dean of Undergraduate Medical Education at a top-ranked institution I spoke with, Dr. Robinson, articulated when I asked her why they incorporate the social sciences: "there's great evidence that there are disparities based on gender and disparities based on race and disparities based on socio-economic status."

Despite widespread recognition of the need for the humanities and social sciences to cultivate this idealized physician, medical educators' interpretations on how—and institutional capacity—to achieve these ends varied. As I will illustrate in detail in Chapter Three on the foundational curriculum, only a small group of schools enact a strategy of incorporation where educators view the critical and interpretive concepts, theories, and methodological approaches of humanities or social sciences as inseparable from the practice of medicine. Educators at the institutions who have the foundational curriculum signal the importance of perceiving this knowledge as essential by incorporating it as required for all students and by being designed and taught by faculty with expertise in these subjects. In contrast to the foundational curricular practice incorporating the humanities, the therapeutic curriculum entails the inclusion of the humanities as a stress-reducing elective. And, as opposed to the foundational curricular practice including the social sciences, the symbolic curriculum contains positivistic social science facts and clinical

skills, and the conscripted curriculum captures when students are asked to teach on social sciences topics based on their membership to particular social groups.

Like with all fields, professions, or institutions that want to make change, the medical educators looking to incorporate the humanities and social sciences to achieve the idealized physician, as one educator at the AAMC annual meeting explained in 2016, "it is hard to balance what is possible and what we want… not everything you dream of will work." Despite the interest in cultivating this ideal, many medical schools have what one educator at the AAMC meeting called a "humanities and social sciences handicap" when it comes to their UME curriculum. This limitation is both epistemic and organizational, and in the remainder of this introduction, I will describe the curricular structure of U.S. medical schools and then draw upon theory to help us understand the variation in curricular practices.

CURRICULAR STRUCTURE OF UME

When medical students matriculate into a U.S. medical school to undergo the four years of training referred to as the UME, they are beginning one phase of a multiple-step process to becoming a physician who will practice without direct supervision. Before gaining admission into medical school, medical students have to fulfill a large number of requirements to be competitive applicants, such as undergraduate courses, high GPA, high MCAT scores, clinical experience, research experience, and volunteer work (Lin et al. 2015). The purpose of UME, according to my respondents, medical schools' descriptions on their websites, and the AAMC, is to provide students with the foundational theoretical knowledge and practical skills that will prove to be the pillars of their future clinical practice.

In general, U.S. medical schools teach the foundational theoretical knowledge in the first 18- to 24-months; this period of time is referred to as the preclinical curriculum (see Figure 1.1 below for a visual representation of a typical UME preclinical curricular structure). This theoretical knowledge is dominated by the basic and clinical sciences, as captured by a representative description from one medical school:

> This course surveys principles of genetics, and molecular, cellular and developmental biology in relation to human disease processes. Coverage includes basics of cell cycle regulation, gene expression, protein processing, signal transduction, ion transport and action potentials, genetics, embryology, cancer biology, immunology and pharmacology. Laboratory sessions provide an overview of cell structure and tissue organization along with thematically relevant concepts of histopathology.

Courses like this are largely taught by basic scientists whose expertise is in one of these particular areas. These core courses tend to use titles like "Genes to Cells" or "Molecules to Tissues" and take up a significant portion of the first part of the preclinical curriculum. For example, in a 16-week "Molecules to Cells and Tissues" course at another medical school, students gain "knowledge of fundamental concepts in molecular, cell and tissue biology and in clinical genetics will enable them to explain the molecular, biochemical and cellular underpinnings of health and various disease states."

After mastering the basic sciences, students generally integrate this knowledge into the next topic: organ systems. The coursework at one school has students cover the organ systems in particular blocks, and these courses are taught by both basic and clinical faculty: "the musculoskeletal system; cancer biology; the neurologic system; the cardiovascular and pulmonary systems; the renal, endocrine, gastrointestinal, and reproductive systems; immunology, microbiology, hematology, rheumatology, dermatology; nephrology, pulmonary disease, cardiology, gastroenterology; neurology, psychiatry, endocrinology, men's and women's health."

In addition to the foundational knowledge, all medical students engage in a course where they learn the practical skills of doctoring. This course is facilitated by either clinical faculty or clinical faculty pairing with other health care professionals (e.g., nurses, occupational therapists, or social workers) or scholars from other disciplines (e.g., social science and humanities scholars). While this course may be called something different depending on the institution, a common name for it is the Practice of Medicine (POM). One school describes their POM course as one that:

> covers a wide range of essential topics related to the practice of medicine such as professionalism, leadership, ethics, patient safety, health policy, health care law, research design, epidemiology, and more. It is a longitudinal curriculum that runs across all four years of the curriculum. Clinical Skills gives you the opportunity to learn and practice skills physicians use every day including communication and interpersonal skills, teamwork, history taking, physical examination, and simple procedures. You begin applying these skills in our virtual clinic with standardized patients and in our virtual hospital with high-fidelity patient simulators. You work closely with the coaching of Scholar-Advisors in a low-stress environment to prepare you to succeed in the real clinical environment.

As this course description suggests, and as Chapter Five and Six will describe in detail, when students are in POM, they learn through a few modalities: lecture, small group discussions, panels, and standardized patient encounters. In Figure 1.1 below, the POM sequence is called "Clinical Skills" and it is threaded throughout the majority of the first two years of UME.

With regard to the inclusion of the social sciences and humanities within the UME, it is largely within the first two years of preclinical curriculum where students would be exposed to the knowledge and skills these fields impart. In Figure 1.1 below, students would be receiving the social sciences during their *Clinical Skills and Experiences* course, as I will show in greater detail in Chapter Five. At institutions that teach the foundational curriculum, they would have a separate block or a separate longitudinal thread that includes social sciences content, as I will explain in Chapter Three.

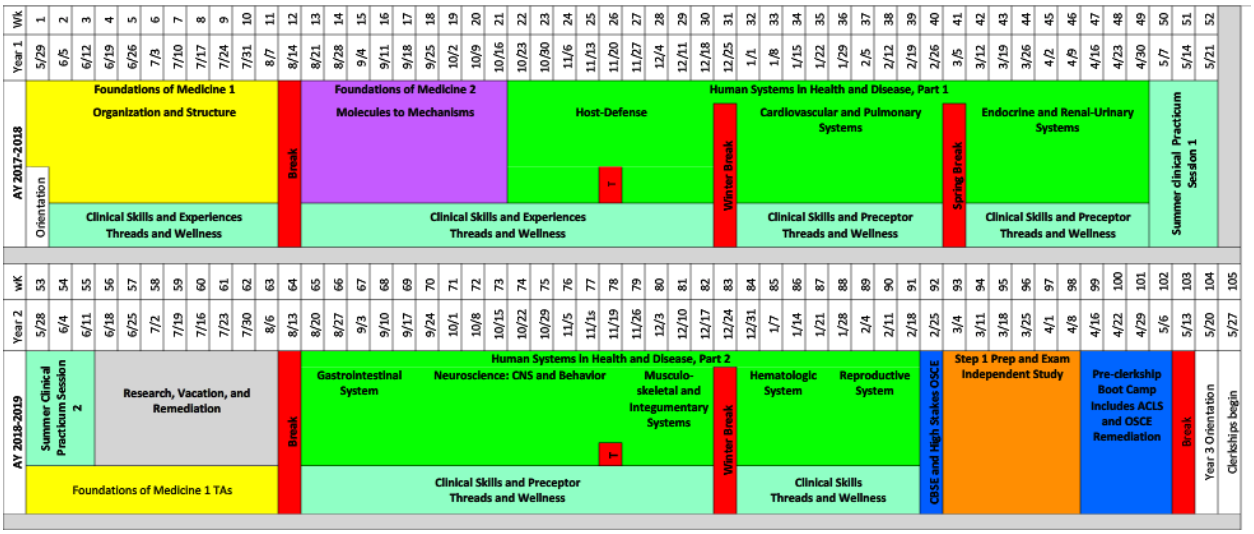

Figure 1.1: Preclinical Curriculum Schematic

Finally, clinical experience—that is, giving students exposure to clinicians engaging in patient care—is highly valued. While medical schools give students opportunities to gain clinical experience in their first two years of UME, the third year of UME is dedicated to clinical rotations, when students move from specialty to specialty. When students finish rotations, which, depending on the institution, may vary from the third year into the fourth year, they then have opportunities to take more electives. In general, the fourth year of medical school is highly individualized, as medical students are on the "interview trail" for residency positions; therefore, there is less common required coursework for all students at this time. These electives tend to be either research-intensive or extra rotations within a particular specialty so medical students can put themselves in the best possible position for their desired residency program. There is the opportunity for fourth-year medical students to choose to take humanities electives at some institutions during this phase. After students complete the UME and receive their MD degree, they will matriculate into residency programs, where they will receive additional training in their chosen specialty (Jenkins 2018). Then, after training in their specialty, they may elect to undergo

more specialized training in the form of a fellowship, or they may begin practicing as a fully trained physician. In what follows, I report on curricular change during the UME part of medical training.

THEORETICAL FRAMEWORK

Medical education, as a field, is populated by basic sciences faculty, clinical faculty, and faculty from other disciplines, educational administrators, support staff, and students.[27] On the one hand, medical education is centralized and standardized by professional bodies like the AAMC and LCME; on the other hand, it is open to interpretation by the local institution. For example, the LCME, the national accrediting body governing UME curriculum, has outlined the ideal knowledge, skills, and attitudes that medical students should learn but has failed to institutionalize enough specificity in what, when, and how to achieve the idealized physician with the social sciences. Many medical educators I interviewed repeated the phrase, "if you've seen one medical school, you've seen one medical school," as if the salience of the local organizational context was the central defining feature governing curricular reform. Thus, to explain the variation in curriculum in my study, I must offer an explanation that takes into consideration both field-wide pressures and school-specific contexts.

Following the suggestion of Camic, Gross, and Lamont (2011) in their programmatic statement about the study of social knowledge, to explain why some educators at particular institutions are able to achieve the foundational curriculum while others enact the therapeutic, symbolic, or conscripted curricula, I focus on the "practices" of educators—or, more specifically,

[27] While there is no publicly available data on the educational administrators (e.g., Deans, Course Directors, Student Affairs Advisors, etc.) nor support staff, there is data on the basic, clinical, and "other discipline" faculty made available by the AAMC. In 2018, there were 19,732 basic sciences faculty, 155,542 clinical sciences faculty, and 1,458 other discipline faculty (AAMC 2019). This means that these faculty from other disciplines constitute less than 1% of academic medical school faculty.

the curricular practices—to illuminate the "modes of working and doing" (Amsterdamska 2008:206) that educators engage in as they tackle and implement the task of incorporating the humanities and social sciences into their institution's UME curriculum. At the urging of Camic, Gross, and Lamont (2011:31), I pay particular attention to the way in which these curricular practices rely on specific "cultural, political, economic, organizational, material, and other supports" and presuppose specific "cultural norms, political institutions, financial and organizational arrangements, cast of supporting personnel, and arsenal of technologies." In the theoretical framework that follows, I draw upon scholars' work documenting the political, cultural, and organizational context from which knowledge is produced, disseminated, and applied.

Scholars from these literatures point to the cultural and organizational resources that facilitate change in both an institutional field as well as in one local context over another. First, I review the cultural structures of opportunity and constraint that are operative in the medical education field that establish important conditions that all educators face. These field-wide pressures contextualize how many clinical faculty members conceptualize the epistemic value of the humanities and social sciences, shaping their curricular practices and implementation goals. Then, because I find that the foundational curriculum occurs at elite institutions, but not all of them, I turn to the literature on cultural and organizational contexts to further explain the variation. I propose the concept of *intellectual infrastructure* to capture the organizational resources at a particular school that enable—or, in other cases, constrain—foundational curricular practices in medical education. Consisting of humanities and social sciences educators in positions of curricular power at the medical school, that is, in positions controlling the development or instruction of courses in the humanities and social sciences for medical students, a strong intellectual infrastructure helps educators achieve the foundational curriculum by giving schools

the funding, support, time, and personnel to incorporate the humanities and social sciences as an essential component of the UME curriculum. In other words, the strength of an institution's intellectual infrastructure explains how some schools are able to overcome the field-wide epistemic pressures that constrain the kind of humanities and social sciences knowledge that are included within most schools' UME curriculum.

Field-Wide Cultural Structures of Opportunity and Constraint

Scholars in the neo-institutionalist tradition have drawn attention to the cultural conditions that pattern the adoption of new practices and norms (DiMaggio and Powell 1983, 1991; Johnson, Dowd, and Ridgeway 2006; Meyer and Rowan 1977; Oliver 1992, 1997). For neo-institutionalists, a school's practices and norms are difficult to change, precisely because the legacy of extant practices and norms looms large, replete with common repertoires for action and legitimating mechanisms (Meyer and Rowan 1977). Educators within a particular school are committed to an understanding of why they teach what they teach and how they teach it. In this sense, the established curricular practices at medical schools—such as basic scientists teaching molecular biology or pathophysiology for the bulk of the curricular time alongside the clinical faculty instructing on organ systems described in the section on the curricular structure of UME above—would be the status quo. As I describe in this dissertation, the institutionalized curricular practices and values that prioritize positivistic facts and clinical relevance pose significant barriers to the incorporation of the humanities and social sciences in ways that are true to their home disciplines.

Schools are hard to change, according to neo-institutionalists, precisely because the decisions made throughout the early stages of the organization's life course constrain choices down the line. Established punishments for deviations, values embedded in organizational practices, and

the common repertoires for action all serve to reinforce the status quo in organizations. Organizational change, or "change in the formal structure, organizational culture, and goals, program or mission" (DiMaggio and Powell 1983:149), varies in response to the organizational environment's external, political, and social pressures (Oliver 1992). Shifts in the demographic profile of a consumer or patient base and shifts in the interests or experience of powerful actors may require or prompt preemptive responses from schools in the form of curricular change.

With regard to my case on the incorporation of the humanities and social sciences into UME curriculum, there are five external, political, and social pressures that serve as field-wide structures of opportunity and constraint. They are opportunities in that they encourage medical educators to incorporate the humanities and social sciences; they are constraints in that they simultaneously delimit how the humanities and social sciences are included. The five field-wide pressures are: the problem of health and health care disparities encapsulated in the LCME Standards, the rise of the individual-as-a-patient who needs to be humanely dealt with, the burnout crisis, the appeal of clinical relevance, and the desire to emulate elite institutions. Field-wide cultural structures like these mobilize interest in curricular reform while confining the nature of that reform.

The first external, political, and social pressure is the health and health care disparities problem—the epitome of a "compelling problem" that is difficult to dispute (Binder 2000:71)—brought to national attention by the increased output of federally funded social scientific research on health and health care disparities (Shim 2014).[28] The U.S. federal government has many offices dedicated to researching and facilitating programs that work toward the reduction and elimination

[28] Health and health care disparities research is a wide body of research that examines why specific marginalized groups of the American population have worse morbidity and mortality rates than the dominant group. Not only does the rise in popularity or importance of this body of research create more funding, but it also creates the conditions under which there are more personnel hired to do this research—often at academic medical centers (Shim 2014).

of racial and ethnic disparities in health and health care.[29] Under each of these branches are hundreds of universities, centers, institutes, and hospitals that receive federal funding to conduct research and identify solutions to social inequalities in health and health care. The LCME Standards are one part of the medical profession's fight in the reduction of health and healthcare disparities and as a requirement for accreditation, all medical schools must include the social sciences in some capacity to meet the LCME Standards, as I illustrate in Chapter Five and Six.

The second cultural structure of opportunity and constraint is the attention that has been given to the individual as a whole person, due to the external, political, and social pressure that the bioethics and patient-centered care movements have exerted on the medical profession. While the push towards bioethics in the context of the U.S. has been described in detail elsewhere (Toulmin 1988; Evans 2002, 2010), the impetus driving the inclusion of bioethics into medical education is relevant to thinking about the forces for including the humanities into medical education today. As technological and bureaucratic changes within clinical practice have increasingly caused concern over depersonalization, theologians and philosophers pressured the medical profession to train medical students in moral decision-making, insisting on the patients' rights to be informed and choose during clinical encounters, among other things (Toulmin 1988:9). In addition, the recent trend of patient-centered medicine pushes the medical profession to hold "deep respect for patients as unique living beings" and abide by the "obligation to care for them on their terms" where "patients are known as persons in context of their own social worlds, listened to, informed,

[29] Under the U.S. Department of Health and Human Services, there are six central bureaucratic bodies that oversee the research and responses to these racial and ethnic disparities: National Institutes of Health's National Institute of Minority Health Disparities (NIMHD), the Agency for Health Research and Quality (AHRQ), the Health Resources and Services Administration's Office of Health Equity (HRSA-OHE) and Office for Minority Health (HRSA-OMH), Substance Abuse and Mental Health Services Administration (SAMHSA), the National Academies' Institute of Medicine (IOM), and the Centers for Disease Control and Prevention's Racial and Ethnic Approaches to Community Health (CDC-REACH).

respected, and involved in their care" (Epstein and Street 2011:100).[30] These field-wide pressures have pushed educators to consider how the inclusion of the humanities could cultivate these qualities in a future physician, as I describe in Chapter Three.

Third, educators feel pressure to address the problem of burnout. Often described as a national epidemic or burnout crisis, medical students and educators are inordinately concerned about the mental and physical livelihoods of members of their field.[31] In 2014, more than half of physicians surveyed in a national study reported that they were experiencing emotional exhaustion, loss of meaning in work, or a sense of ineffectiveness and lack of engagement with patients (Shanafelt et al. 2015). Of the 19,254 total graduates from U.S. medical schools in 2017, 75.3% of them reported that they *already* felt disengaged from their work, distancing themselves from the objectives and content of their medical school work and holding negative attitudes toward medical school and the profession in general. These same students reported feeling emotionally exhausted, or cognitively and physically strained as a consequence of the demands of medical school (AAMC 2017).[32] In general, medical students, residents, and practicing physicians report higher levels of burnout, depression, and suicide risk compared to the rest of the U.S. population (Dyrbye et al.

[30] The importance of patient-centered care is also enshrined in the Institute of Medicine's report on the gaps in high-quality care in the U.S (2001), which the AAMC cited as a significant reason for the MCAT and LCME changes outlined earlier in this chapter.

[31] To illustrate the extent of the discourse on burnout, I draw upon publication trends in the U.S. There are 3129 articles on physician burnout in U.S. National Library of Medicine online resource, with the first appearing in 1981, and a steady increase in publications per year until a recent spike in 2015. In the 1980s, there were about 7 articles on physician burnout published each year; in the 1990s, an average of 26 articles per year; in the 2000s, an average of 61.3 articles per year; in 2010-2015, an average of 145 articles per year; in 2016, 306 articles; in 2017, 351 articles; in 2018, 410; and by May 2019, there were already 210 articles.

[32] Percentage calculated using descriptive statistics from the Graduating Questionnaire survey administered and completed in October 2017 by the AAMC. The AAMC uses the Oldenburg Burnout Inventory (OLBI), a validated scale that has been been used across workplace settings to measure exhaustion and disengagement from work (Demerouti 1999). This survey instrument utilizes a series of dozens of positively and negatively worded questions, forcing survey respondents to read and carefully respond to each question. By utilizing the OLBI, researchers can compare medical student burnout to other educational and workplace levels of burnout.

2014). The burnout crisis is invoked as a field-wide pressure for including the humanities, as I describe in Chapter Four.

Fourth, the desire for and appeal of knowledge that is useful (Slaughter and Rhoades 1997), or, in this particular case, the ability of bodies of knowledge to attain *clinical relevance* is another structure of opportunity and constraint. By clinical relevance, I am referring to the cultural frame that medical educators use to make a clinician or future clinician understand or feel that a body of knowledge or skill is important to clinical practice. Critical to swaying particular stakeholders and securing buy-in, what about the humanities and social sciences these educators hold to be relevant impacts the scope of these knowledge's contributions and the type of curricular practices educators at these schools engage in. As I show in Chapter Three, to be effective at integrating the humanities and social sciences into medical education, educators must be adept at framing a discipline as paramount to clinical practice; however, as I show in Chapter Five, educators that *only* possess clinical experience as their connection to the social sciences end up confining where they place the social sciences in the UME and how they teach it.

The fifth and final field-wide pressure is the desire to conform or emulate the curricular practices of other schools in the medical education field. Institutional isomorphism is another central feature of the neo-institutionalist approach; it is the observation that organizations model themselves and their practices after one another, converging within organizational fields (DiMaggio and Powell 1983). Organizations emulate organizational forms that they *perceive* to be successful or legitimate, regardless of their *real* efficacy (Meyer and Rowan 1977). This part of the neo-institutionalist approach is helpful for us to understand how medical educators recognize and respond to trends, as I will show in Chapter Four on the therapeutic curriculum. While standards and trends may point to an impetus, pressure, desire for change, these field-wide cultural

structures of opportunity and constraint cannot fully explain why some schools enact the foundational curriculum while others utilize a therapeutic, symbolic, or conscripted curricular approach. As Binder (2000, 2002, 2018) and others (Hallett and Ventresca 2006; Kellogg 2011) have pointed out, these neo-institutionalist scholars may overstate the influence of the field at the expense of the local dynamics at the particular school. Because some schools are able to resist the epistemic constraints posed by some of these field-wide pressures, we must turn to the local organizational context to further explain this variation.

School-Specific Intellectual Infrastructure

Scholars in the sociological subfields of culture, education, knowledge, and science and technology studies look to the professional, institutional, and social locations of knowledge producers and the structural conditions in place that make new knowledge claims possible (Swidler and Arditi 1994). This theoretical framework can be extended to consider the viability of new curricular practices. Within the new political sociology of science (NPSS) program, scholars draw attention to broader politics of knowledge that pattern the resources and research agendas of academic actors (Frickel et al. 2010:464). When educators are able to install the foundational curriculum as their strategy of incorporation, it is an accomplishment, as "new knowledge fields are fundamentally political outcomes, the result of struggles for resources, identities, and status" (Jacobs and Frickel 2009: 57).

The resources available to educators, in the case of the incorporation of the humanities and social sciences, prove to be crucial. In fact, the schools that are able to facilitate the foundational curriculum are more elite institutions. There are three important components that make elite institutions more powerful and also allow for an elite institution to establish a strong intellectual

infrastructure: their financial resources, their reputation, and their high-status personnel. Just like with Bourdieu's (1986) forms of capital, these three components tend to run together; the more money, the more prestige, and the more high-status scholars at a medical school.

Schools that are more elite tend to have more financial resources; funding provides institutions—and actors within these institutions—the ability to produce knowledge and execute goals (Frickel and Moore 2006). While Frickel and Moore (2006) do not use this exact terminology, by adopting a perspective from political sociology, just like with studies of nation-states and state capacity, I can examine how elite academic medical centers have an increased institutional capacity to provide for their constituents (e.g., faculty and students). Practically speaking, when it comes to the strategy of incorporating the humanities and social sciences that takes the form of the foundational curriculum, this means that these elite institutions can invest in hiring renowned scholars, pay for more frequent faculty development, conduct more research on the quality of instructors, send more educators to conferences, and even fund more pedagogical partnerships with experts at museums or concerts. All of these capacities help to reinforce the intellectual infrastructure around the inclusion of the humanities and social sciences.

If a school does not have personnel with the expertise to conceptualize how humanities and social sciences could be integrated in a critical and interpretive fashion, then they might not know what to do with these LCME Standards. According to Dobbin and Kalev (2007), the more explicit and clear the advocated practice—and the ramifications of failing to comply—the more likely organizations would come to adopt it. And in Edelman's (1992) work on Civil Rights law in workplaces, she shows that although formally adopting anti-discrimination policy, firms enact "symbolic compliance," precisely because the external pressure (e.g., the law) lacks the specificity requiring more rigorous compliance. Symbolic compliance occurs when there are "ambiguous

principles that give organizations the latitude to construct the meaning of compliance in a way that responds to both environmental demands and managerial interests" (1992:1531).

In addition to money, prestige—whether embodied in particular individuals (Evans 2005; Frickel and Gross 2005) or in particular higher education institutions (Brint et al. 2011; Zhang 2005)—has been shown to be an important indicator of influence in existing or newly created fields. For example, in their general theory for scientific/intellectual movements (SIMs), Frickel and Gross (2005) point to many empirically grounded components of successful introductions of new forms of knowledge into particular fields. SIMs are "collective efforts to pursue research programs or projects for thought in the face of resistance from others in the scientific or intellectual community" (Frickel and Gross 2005:206). Frickel and Gross (2005) argue that aggrieved, prestigious, resource- and follower-rich insiders who frame their demands in a resonant way have the greatest likelihood of successfully institutionalizing their ideas. Elite institutions are more prestigious and have more high status, influential medical educators as a result.

In examining the way in which prestige operates at elite institutions, we can begin to see why some elite institutions have the foundational curriculum and others do not. As Binder et al. (2016:22) recently wrote in depicting the assumptions of neo-institutionalists in relation to career aspiration formation at elite institutions: "if finance and consulting are hot at Princeton, they should also be sought after at Yale." Because Binder et al. (2016) find variation among elite institutions, as I do, they look to the local context to find how elite institutions shape their students. With prestige comes power to establish a particular form of knowledge or curricular practice as authoritative and establish field-wide trends. In thinking about its application to the medical profession, in a recent study of physicians' work environments, Menchik and Meltzer (2010) found that the prestige of physicians' work environments—in this case, hospitals—effected how esteem

was allocated to physicians. Hospitals, for Menchik and Meltzer (2010:138), "each contain their own social structures of reputation and expertise that influence how medicine is practiced, regardless of the guidelines and scientific research in a field." For example, at low-prestige hospitals, physicians could be perceived in high esteem by their colleagues if they were well-read in clinical medicine; however, at high-prestige hospitals, the pedigree of the physician held more weight in designations of high esteem.

Menchik and Meltzer's (2010) study suggests that the local understandings of prestige, which, in the present study would be understandings of how the humanities and social sciences are seen as a mark of distinction, or a brand, may pattern how an institution allocates its resources. In their discussion of branding, O'Guinn and Muniz (2010:133) argue that the way in which a company brands an item serves as a signifier of meaning, and "meaning is the most powerful source of sustainable competitive differentiation." As I show in Chapter Three, the inclusion of the humanities and social sciences as a foundational curriculum is a way in which elite institutions can competitively differentiate themselves from their already elite pool.

Thus, while all elite institutions have the funding, only some conceptualize the humanities and social sciences as a part of their prestigious brand. The additional component to forming the intellectual infrastructure that supports the foundational curriculum is the personnel. As I have depicted, funding and prestige attract the high-status personnel that may be experts in the humanities and socials sciences. These scholars are adept at gaining the trust and speaking the language of their clinical faculty counterparts. As Mizrachi et al. (2007) explain in advancing a *trust repertoires* approach, we must understand how organizational actors draw upon cultural resources to enact strategies that will instill trust in critical stakeholders. This approach prioritizes skilled agency in which actors adeptly select, form, and apply forms of trust (2007:144). Another

way in which actors secure legitimacy is through language; Aldrich and Fiol (1994:652) contend that actors "who utilize encompassing symbolic language and behaviors will gain cognitive legitimacy more quickly than others." [33]

In Chapter Three, I will show how the scholars at these elite institutions that have strong intellectual infrastructures are able use the language of clinical relevance and gain the trust of the clinical colleagues while maintaining the integrity of the foundational curriculum. In general, a school with a strong intellectual infrastructure has more financial resources, has more prestige, and has more humanities and social sciences scholars in positions of curricular power, which, is further supported by conceptualizations of the humanities and social sciences as a part of their institution's brand, and is effective because the power of the humanities and social sciences educators afford them social fluency to communicate across epistemological divides. A weak intellectual infrastructure has less money, less prestige, less humanities and social sciences faculty with power, and thus more susceptible to the epistemological constraints of the appeal to clinical relevance.

In sum, organizational context, in the form of intellectual infrastructure, patterns how a school responds to field-wide pressures. The organizational resources of funding, prestige, and personnel interact with the cultural structures of health and healthcare disparities, the LCME Standards, burnout crisis, clinical relevance, and desire to be on trend to create the various humanities and social science curricula in medical education. Funding, prestige, and personnel—the components critical to forming the intellectual infrastructure—are pivotal precisely because so

[33] Perhaps a parallel example will be helpful to illustrate this point. In their study of a translational neuro lab, Brosnan and Michael (2014) point to the necessity of the clinician-scientist as the critical bridge, or "knowledge broker" (Waring et al. 2013), to these "cultural" divides. Acting as a pivotal facilitator of translational work (Michael, Wainwright, and Williams 2005:386), this "hybrid professional" provides a platform for understanding the active work that individual academic actors must engage in to realize the objectives of their translational projects. Embodied in the double credential MD-PhD, the "multidisciplinary" dimension of the concept of the multidisciplinary entrepreneur is that the actor straddles both the humanities/social sciences and the clinical worlds. As such, the multidisciplinary component of the multidisciplinary entrepreneur refers to the "fluency" these actors have with biomedical, social scientific, and clinical expertise (Collins and Evans 2007).

many field-wide standards are open for interpretation. In other words, the field-wide cultural structures of opportunity and constraint help explain why medical schools attempt to include the humanities and social sciences in their UME curriculum, and the organizational resources of the intellectual infrastructure help explain why some schools are able to incorporate them as the foundational curriculum and most schools enact them as therapeutic, symbolic, or conscripted curricula. The lack of intellectual infrastructure prevents a wholesale incorporation of the humanities and social sciences, in turn reducing these subjects to things that solve problems—problems like the health and health care disparities epidemic and the burnout crisis. The focus on creating an idealized physician through a full incorporation of the critical and interpretive training encouraged by the humanities and social sciences wanes in the face of a lack of intellectual infrastructure, and instead, these subjects get whittled into simplified solutions.

CONTRIBUTIONS

The findings about the four different strategies of incorporation allow me to contribute to two distinct subfields: sociology of knowledge and sociology of medicine. While I will elaborate on these contributions in more detail in Chapter Seven, I will briefly outline my central points.

Valuation of Knowledge

This study has implications for debates about the valuation of knowledge, both confirming and complicating what scholars have discussed about the plight of the social sciences and humanities in a neoliberal, multiversity era. Judith Butler (2015:4) in her keynote address to a conference about the future of the humanities in U.S. higher education and the public sphere posed the question, "how do we defend our practices without using the very language and the very

framework of values of those who wish to see knowledge in purely instrumental terms?" This question captures what I think could be called the *relevance paradox*, as it points to the way in which scholars must decide whether to engage in justificatory practices whose very existence challenge their belief in valuation schemas to begin with. As Butler (2015) has reasoned, neoliberal values regarding the "impact" or "deliverables" of knowledge, whether it be through the cultivation of marketable skills or the dominance of managerial efficiency, forces humanities and social sciences scholars into grappling with the relevance paradox.

In my study, I find evidence that humanities and social sciences scholars, as well as these bodies of knowledge, do confront the relevance paradox. Scholars, particularly at the middle-ranked institutions, worry about dumbing down their bodies of knowledge in order to be relevant, and my data shows that the humanities and social sciences are often transformed in ways that reduce their complexity. There is also evidence that the humanities are instrumentalized for addressing the medical profession's concern over student burnout.

In addition, the literature on the valuation of knowledge also extends to specific relationships between biomedicine and the humanities and social sciences. While in 1979, the budget for the National Science Foundation was five times that of the National Endowment for the Humanities, by 1997 it was thirty times as much—and only 0.45% of the federal research support budget went to the humanities in 2010 (Touya de Marienne 2016:2). Rabinow and Bennett (2012) argue that biomedical scientists hold a low valorization of humanistic and social scientific knowledge as compared to biomedical knowledge, based on biomedical scientists' impressions that humanistic and social scientific knowledge is too soft and unsystematic. Benneworth and Jongbloed (2010) describe humanistic and social scientific knowledge as increasingly

marginalized with the economization of higher education, because this knowledge is not as easily converted into capital as biomedical knowledge.

These explanations neglect to consider how the various forms of relationships between humanities and social sciences scholars, medical educators, and medical students may impact the integration of humanistic and social scientific knowledge into medical education. My study complicates our understanding of biomedical culture and actors. As applied biomedical actors, clinical faculty members are exposed to social problems and humanity in a way that a bench-scientist is not. When we think about translational medicine,[34] we think about how the bench gets to the bedside, but with my study on medical education, we begin to see how the bedside pushes back on the bench. Clinical experience is an entry point for biomedical actors to see the value in the humanities and social sciences; while the structure of the medical school may dampen or constrain the excitement or enthusiasm for the instruction of these subjects, at the very least, future scholarship should take into consideration that the basic and clinical faculty members may have different evaluative cultures based on their different work environments and experiences.

Socialization of Medical Students

The impacts of these four strategies of incorporation also allow me to contribute to the sociology of medicine. First, I contribute to the growing body of work highlighting the heterogeneity in medical socialization. Taken together, the mere existence of the four inductively generated empirical chapters enables me to demonstrate that medical students are subject to

[34] Translational medicine, as a set of practices, encompasses the packaging of research insights into clinically relevant interventions. As researchers move their findings from the "bench" to the "bedside" (Michael, Wainwright and Williams 2005), proponents of translational medicine argue, clinical work will be improved through up-to-date, research-informed diagnostic and treatment modalities (Wilson-Kovacs and Hauskeller 2012). In addition to the application of scientific knowledge to improve health care, translational medicine *also* entails more capitalistic pursuits—as researchers move their work from the bench to the bedside, they often acquire a patent along the way (Hoffman 2015).

different socialization and professionalization processes depending on where they receive their education. Moreover, by showing how students' engagement with the humanities is largely of their own volition and how educators conscript students to teach each other social topics, as I do in Chapter Four and Chapter Six, I show that there is also variation in socialization within schools. Regarding the latter point, in addition to analyzing how social identity matters for the way students are treated, I examine how educators use social identities in the construction of the professionalization process itself. By introducing the concept of the *conscripted curriculum*, as I do in Chapter Six, I illuminate a central method by which educators press students to participate in the professionalization process of their peers by asking students to share their personal experiences as members of a particular social group.

Second, my finding about students of color, in particular, which I came to by asking about the integration of the social sciences, enables me to empirically contribute to an under-studied facet of medical socialization: the socialization experiences of students of color. While medical school faculty of color have written autobiographically about their experiences (Cyrus 2017; Tweedy 2015), medical sociology as a subfield has very little empirical data on how racial minorities may be disproportionately impacted in the course of their professional training. In one of the only studies of race and medical students, a prospective observational study of 3,547 students from a random stratified sample of 49 U.S. medical schools about their implicit racial biases, van Ryn et al. (2015:1754) conclude that instructors often do not exhibit "sufficient depth of knowledge" when teaching the didactic material on race and that interracial contact impacts students' implicit racial attitudes. This latter finding about interracial contact posits that white students who reported "favorable" contact with students and faculty of color were more likely to have fewer implicit racial biases towards people of color. While van Ryn et al.'s (2015) study is

important for considering racial bias in medical training, the scholars do not explore the interactions that constitute "favorable contact" to identify the process by which these biases may be lessened. Nor do the scholars consider the experiences of students of color.

That said, sociological research on underrepresented minority students in other white-dominated institutions of education have shown that "numerical rarity by race significantly increases 'token stress'" (Jackson, Thoits, and Taylor 1995:543). Studies of graduate students of color in STEM fields indicate that underrepresented students experience greater isolation, discrimination, microaggressions, mental health issues, and mentoring gaps (Ong et al. 2011). Scholars have also shown that graduate students of color pursuing academic careers face assumptions about their criminality, intellectual worth, and belonging (Brunsma, Embrick, and Shin 2017). With my study, I show how students of color are subject to another form of tokenized stress when they are conscripted-as-curriculum at a higher rate than their white peers; this undue burden is a source of exhaustion, frustration, and—much to their further dismay—devalued by their institution.

Third, I contribute to the literature on the emotional socialization of medical students with my finding about the existence and justification of the therapeutic curriculum. With the shift to a service economy and the rise of consumerism in patients, there is more pressure on the medical profession to engage in emotional labor, transformed into "privileged emotion managers" (Orzechowicz 2008:143). With my finding that many medical schools incorporate the humanities as the therapeutic curriculum, and that the medical students perceive these curricular options as an optional, cathartic break, I show how many medical students learn that it is their individual responsibility to look after their own mental health or wellbeing. Moreover, I show that educators individualize a structural problem and then re-structuralize the implications by asking students to

assume ownership over addressing their own burnout, a problem caused by the structure of the health care system, and then they claim the consequences of students not addressing that problem as having structural complications down the line, like dissatisfied patients.

CHAPTER ORGANIZATION

The rest of the dissertation is organized as follows. In Chapter Two, I review the research design of the present study. To analyze how medical educators approach the incorporation of the humanities and social sciences into UME curriculum, I interviewed 90 medical educators and students: 15 humanities scholars, 15 social science scholars, 30 medical educators, and 30 medical students from 37 top- and middle-ranked MD-granting institutions in the United States. In these interviews, I asked respondents about their conceptualization of humanistic and social scientific knowledge, their understanding of its purpose in medical education, and the challenges and opportunities they confront when introducing these sets of knowledge into their institution's curriculum. To further contextualize these data, I observed medical education conferences (e.g., the AAMC annual meetings), gathered curricular materials (e.g., syllabi, lesson plans, course descriptions), and catalogued institutional features of all 137 MD-granting schools, such as location, rank, leadership structure, financial resources, intellectual resources (e.g., proximity to undergraduate campus; joint or interdisciplinary hires; research centers, departments), faculty and student representation, and program requirements (e.g., community service, research).

In Chapter Three, I describe the strategy of incorporation that most closely aligns with the professional vision of the training and qualities of an "ideal" physician: what I call the *foundational curriculum*. Educators enact this strategy of incorporation in two central ways: immersive and embedded. With the immersive foundational curriculum, medical students learn a humanities or

social sciences subject like they would if they were in a graduate seminar on that very topic; with the embedded foundational curriculum, medical students learn a subject in a variety of courses and educational settings over longer periods of time. What is pivotal to this curriculum is that educators at these institutions characterize the humanities and social sciences as essential—or, foundational—to the practice of medicine itself. I show how fourteen elite institutions with strong intellectual infrastructures are able to sustain these foundational curricular practices by making them a part of their prestigious brand and by thoroughly articulating the clinical relevance of the humanities and social sciences in a way that preserves the critical and interpretive basis of these disciplines. I conclude this chapter with a discussion of how students who receive this type of education value the humanities and social sciences for their future careers as physicians, which, as the subsequent chapters will show, is much more exceptional than it is common.

In Chapter Four, I discuss the therapeutic curriculum. The therapeutic curriculum, as I describe, is when educators provide students with opportunities to engage with the humanities in a limited and optional capacity. A trendy elective, 113 out of 137 schools offer the humanities as an elective or extracurricular enrichment activity. Educators enact this curriculum in the face of limited financial and intellectual resources; moreover, educators utilize this strategy of incorporation because they recognize other schools are doing it and see the humanities as a way for their institution to address the problem of student burnout, with the notion that the humanities can serve as a source of stress-relief and support. In so doing, I show that educators end up constraining the way in which the humanities are valued and devolve the responsibility for student wellness onto the students themselves.

In Chapter Five, I detail the symbolic curriculum. I find the symbolic curriculum at all but ten medical schools—the ten medical schools that have a social sciences foundational curriculum

(the other four schools have the humanities foundational curriculum). The symbolic curriculum entails a limited amount of content on health and health care disparities statistics in lecture or in the Practice of Medicine (POM) small group. The reason why the symbolic curriculum takes on this form is because of the ambiguity in the LCME Standards as well as the opportunity and constraint that the appeal to clinical relevance affords a faculty with limited intellectual infrastructure. Ironically, students who interact with the symbolic curriculum deem the social sciences as not that important to clinical practice, which is exactly the opposite of what the clinical faculty seek to convey. Further, if any social scientific knowledge is retained by students, it is drastically reduced in complexity.

In Chapter Six, I depict the final strategy of incorporation, the conscripted curriculum, which entails educators incorporating the social sciences into the curriculum by having students share their own personal experiences as members of particular social groups. While the nature of the data I use to inform this analysis is based upon my interview data, I argue that it is plausible that every school that teaches social science in the Practice of Medicine small group setting (there are 104 such schools) could enact the conscripted curriculum. In this chapter I show that educators believe that they are enacting a state-of-the-art pedagogical strategy for getting students to learn about the social importance of topics such as race. However, because educators lack the expertise to facilitate these conversations and do not provide students with social scientific data and concepts to work with, and because educators decide to teach these courses in a clinical skills setting rather than in a lecture-knowledge setting, students end up doing the majority of the work themselves. When it comes to the instruction of race, students of color, in particular, are subject to more labor and emotional exhaustion than their white peers. In general, students in schools employing the

conscripted curriculum feel that they do not learn about the importance of social sciences for the future practice of medicine.

Finally, in Chapter Seven, I offer some concluding remarks on how this study contributes to debates in the sociology of medicine, knowledge, and education. In addition, I review the limitations of the study and future research directions. I conclude with a discussion of policy implications for medical educators attempting to cultivate future physicians that are more humanistic, humble, curious, compassionate, empathic, and aware of social issues.

CHAPTER 2: RESEARCH DESIGN

In contrast to most of the work on undergraduate medical education, or UME, one of the most unique and advantageous dimensions of this study is its comparative scope. To understand how medical educators incorporated the humanities and social sciences into UME curriculum, I engaged in a qualitative mixed-methods project. First, I conducted 90 interviews with medical educators and students about how they conceptualized the value of the humanities and social sciences, how they viewed the purpose of these sets of knowledge in medical education, and how they perceived the various challenges and opportunities they confronted with their interdisciplinary effort to include these bodies of knowledge into their UME curriculum. Not only did these interviews give an account of successes and failures, but they also illuminated how these scholars, educators, and students defined the relevance of the humanities and social sciences for medicine and detailed the cleavages and convergences between their epistemological and methodological approach and their collaborators from other disciplines. Second, I analyzed curricular materials (e.g., curricular maps, course descriptions) and institutional data (e.g., public or private, proximity of nearby undergraduate campus, urban or rural, etc.) of all 137 MD-granting institutions within the U.S. in order to place these strategies of incorporation within a broader social context. Third, I further contextualized these data with non-participant observations at scientific and pedagogical meetings, such as the annual meeting of the Association of American Medical Colleges (AAMC).

By interviewing *medical educators*, analyzing their *curricular materials*, and observing their *presentations* at conferences, I gained insight into the professional and administrative impetuses and goals for including the humanities and social sciences into medical education. By interviewing a particular subset of medical educators, *humanities and social sciences scholars involved in medical education*, analyzing their *curricular materials*, and observing their

presentations at conferences, I gained insight into the disciplinary and interdisciplinary impetuses and goals for knowledge translation for medical education, as well as the perceived resources and constraints that humanities and social sciences scholars face in achieving these goals. By interviewing *medical students,* I gained insight into how the humanities and social sciences are transmitted to the very people the UME curriculum is intended to shape, as well as how this knowledge is situated within the broader education experience and anticipated clinical realities.

INTERVIEW DATA

I conducted in-depth interviews with medical educators and students across the U.S. about the humanities and social sciences in their curriculum. In total, I interviewed 60 medical educators (30 with a biomedical background, 30 with a humanities or social sciences background) and 30 students from 37 different medical schools. My sample of medical educators contained faculty in senior leadership positions, UME program directors, and teaching faculty that had direct control or responsibility for curricula in the first four years of medical school. Of the 60 educators interviewed for this project, 34 held at least an MD degree (9 held an MD-PhD, with a PhD in a humanities or social science discipline); 11 held a PhD in a humanities discipline; 10 held a PhD in a social science; 3 held a PhD in a biomedical discipline; and 2 held an EdD. These scholars with humanities and social sciences backgrounds teach in medical schools, like the medical educators with MDs and EdDs, therefore I often refer to both groups as "educators" when I am describing trends that all educators reported or interview questions that I asked of all educators.

The central objective for interviewing people from these three groups was to leverage comparisons across disciplines (e.g., biomedical, humanities, social sciences) and across status (e.g., faculty or student). For example, as I show in chapter six, educators and students spoke very

differently about the conscripted curriculum practice. While educators discussed the conscripted curriculum as state-of-the-art pedagogy that assisted student learning, students discussed it as either meaningless or burdensome. Moreover, my comparison across medical schools allowed me to conclude that some medical schools do not enact the conscripted curriculum; schools that take the instruction of critical and interpretive social sciences seriously, as detailed in Chapter Three, did not have the same impacts on students as in Chapter Six. I designed my recruitment and sampling strategy to take into account how institutional rank, generation, gender, and race would potentially pattern my results as detailed in the sections below on recruitment and sampling.

The interviews I conducted with participants were semi-structured and lasted between 26 and 72 minutes, with an average length of 51 minutes. All of the interviews were transcribed from audio to text, with the exception of five interviews because the participants declined to be recorded. I utilized the same interview guide with each medical student and an expanded version of that guide with educators. I created a different middle section for educators and students. For the educators, therefore, I had a section on background, curricular development, curricular implementation, and the definition and goals of curricular initiatives. For educators, I asked them to describe how and why they became involved and interested in medical education, how they approached curricular design, why they wanted to include the humanities and social sciences into their curriculum, how they persuaded their colleagues and students of the importance of their developed courses, what reservations they had about the inclusion of these types of knowledge, what evidence best illustrated the success of a course, what students most gained from the course, and the rewarding and challenging parts of the incorporation process.

For students, instead of asking about curricular development, I asked about curricular reception. With my interviews, I asked educators and students about particular curricular initiatives

and how specific subjects were taught. For example, to ascertain how educators approached the instruction of social science, I asked them how they taught the subjects of race and gender. In addition, I asked students to reflect on how the courses were structured, what they read, how they were evaluated, and what their impressions were of these courses. All respondents were asked similar questions intended to ascertain the ways they conceptualize the humanities and social sciences, in general, and the objective behind including these bodies of knowledge within medical education. I also asked about particular curricular practices in medical education, asking all respondents about how they understood cultural competence, medical humanities, and sociology. I also asked them at the close of the interview if, and if so, how, they thought these curricular practices would make students into better doctors.

Many of the questions for all respondents were about the objectives of medical education, experiences with course material and program requirements, and general impressions of the medical field. At the beginning of the interview, I asked questions to understand the intellectual, administrative, and professional development of the respondent. Beyond gender and racial identity, I asked respondents about the role of their personal background in shaping their research, teaching, and learning goals, to help contextualize variation according to respondents' social locations. For more information, please refer to Appendix A to review the interview schedule.

Recruitment

I primarily recruited humanities and social scientific scholars involved with medical education, medical educators with professional medical or educational backgrounds, and medical students according to the sampling strategy listed below. Practically speaking, this means I identified potential recruits through medical school websites and at scientific meetings and

professional conferences where discussions about the inclusion humanities and social sciences for medical education occurred. For example, before I began contacting respondents, I analyzed the field of 137 MD-granting institutions in the U.S. to identify my universe of potential respondents. Because this pool was delimited (roughly 150-200 humanities and social science scholars; 2,000 medical educators[35]; and 15,000 medical students), I used a couple recruitment strategies.

First, I emailed potential respondents at top-ranked institutions. In this phase, I would identify a geographical area where I planned to travel to do interviews; I chose locations where there were either many medical schools in the metropolitan area or within 3-4 hours of travel by car, train, or bus. Then, I would email every person who met the inclusion criteria as medical educators (PhDs, MDs, and EdDs) at each of the institutions in that geographical area. By contacting every person, it increased my chances of having a greater number of interviews, and thus greater institutional diversity within the sample. My inclusion criteria for medical educators, which I describe in greater detail in the sections on each of the type of respondents below, was readily identifiable on each institution's website, as I could access the potential respondent's CV which let me know their degree, year of graduation, current and past positions at the medical school. Once I filled my quota for a particular group of respondents, I stopped emailing potential respondents in that group and focused on the groups that I still needed as a part of my quota sampling design.

While educators' contact information was listed on websites, medical students' contact information was not, and therefore I engaged in snowball sampling with medical students. I

[35] The number for medical educators might seem low, but as my selection criteria below will show, the number of educators actively involved in the development and instruction of curriculum is much lower than the amount of research and clinical faculty employed part- or full-time at academic medical centers. In total, at academic medical centers in the U.S., there are 19,433 basic science, 153,717 clinical, and 1,420 other-discipline faculty members (AAMC 2018).

contacted medical students through my personal network of friends and family members. Once I conducted an interview with a medical student, I would create a snowball chain, ultimately creating many small chains. In addition, I met potential respondents at professional meetings and workshops. While I spoke to a student and an educator at the same medical school for the majority of my sample, there were some schools in which I did not speak with a student or educator to yield a match. In total, I interviewed students and educators from 37 schools.

This interview data with educators and students may be limited by: a) the likelihood that respondents who agreed to participate might have been more interested in my study in the first place; and, b) the over-representation of medical schools from Western and Northeast states relative to Southern and Midwestern states. My sample thus may represent the more enthusiastic supporters of the integration of the humanities and social sciences into medical education; however, as I will show, because I find so many limitations to the incorporation, I believe that I am able to accurately capture the ways in which these types of curriculum are incorporated. Moreover, by supplementing the interview data with curricular and institutional data from all MD-granting institutions, I believe I further address some of the limitations of the interview sample.

Sampling

I sampled all interview participants according to a quota sampling design. For humanities scholars, social sciences scholars, and medical educators, I built the sample according to the degree-granting year of the respondent to account for any potential cohort effect. In particular, I was interested in ensuring that I had variation in power and perspective of the respondent. For example, the older educators have higher status and a longer view of both the historical curricular

trends as well as the curricular decision-making processes at their particular institutions, whereas the younger generations have less experience to reflect upon.

Regarding generation of medical educators, roughly 25% of respondents attained their PhD or MD before 1985, 50% between 1985-2000, and 25% between 2000-2015 (see Table 1 below). This quota was based on my estimate of the percentage of scholars in these cohorts who were active in medical education; to identify their active status, I referred to their current appointments as deans of medical education, course directors, engagements in professional conferences or workshops, or publications in academic journals. I identified the year they earned their MD by referring to their curriculum vitae. With medical students, their degree was either pending (currently enrolled, MD to be granted 2017-2019) or had recently been earned (MD granted 2015-2017).

In addition, I attempted to oversample faculty and students at institutions that are highly ranked as top 30 in research or primary care (see Table 2.1 below).[36] I determined the rank of the institution using the U.S. News and World Report rankings. While not perfect, I used these rankings to indicate schools considered to be at the top because these rankings are embroiled in a cycle of self-fulfilling prophecy (Bastedo and Bowman 2010, 2011; Bowman and Bastedo 2010). By oversampling educators and students at top-ranked institutions, I am operating under the assumption that these medical schools are attempting to have the best medical school curriculum to compete with other medical schools in the field. This project takes the neo-institutionalist contention that professional membership exerts normative pressures on organizations like medical

[36] The top-ranked institutions are schools such as Harvard, Johns Hopkins, Stanford, University of Pennsylvania, UC San Francisco, Columbia, UC Los Angeles, Washington University in St. Louis, Cornell, NYU. The middle-ranked institutions are schools such as Einstein, Cincinnati, Iowa, Florida, UC Irvine, University of Massachusetts, Georgetown, Stony Brook, University of Texas San Antonio, University of New Mexico. The lower-ranked institutions are schools such as Florida State, East Tennessee State, East Carolina, Central Michigan, Texas Tech, North Dakota, Marshall, Rowan-Cooper, Toledo, and Wright State.

schools to enact change as a point of departure for understanding how the pressure to adopt certain knowledge gets borne out on the ground (DiMaggio and Powell 1983). What remains up for debate, however, is what constitutes the best knowledge and skills contained within the medical curriculum.

Table 2.1: Respondent Demographics

Respondent	Total	Gender	Race	Year Degree Earned	Institutional Rank
Medical Educator (PhD in Humanities or Social Sciences)	30	15 men 15 women	25 white educators 5 educators of color	8 (before 1985) 15 (1985-2000) 7 (2000-2015)	14 (top-ranked) 16 (middle-ranked)
Medical Educator (MD or EdD)	30	17 men 13 women	27 white educators 3 educators of color	11 (before 1985) 16 (1985-2000) 3 (2000-2015)	18 (top-ranked) 12 (middle-ranked)
Medical Student	30	16 men 14 women	15 white students 15 students of color	30 (2015-2019)	11 (top-ranked) 19 (middle-ranked)

Additional theoretical work supports this neo-institutionalist rationale, as Frickel and Gross (2005) argue that prestige- and resource-rich institutions are fertile ground for successful scientific movements. By drawing upon educators and students at both top- and middle-ranked institutions, I can be sure to interview enough participants who have a range of experience attempting to incorporate the humanities and social sciences into their UME curriculum. Middle-ranked schools also are trying to emulate these higher-ranked institutions.[37] Moreover, while selecting on the

[37] Because of the logistics of how I planned research trips and contacted respondents detailed in the Recruitment section above, I only have schools that are top- and middle-ranked within my sample; however, because I find that middle-ranked institutions have weak intellectual infrastructure for the incorporation of the humanities and social sciences, I believe the lower-ranked institutions would be subject to the same funding, prestige, and personnel challenges that middle-ranked institutions face.

dependent variable could be a concern, I find enough evidence of curricular variation in top-ranked schools to mitigate concern over selection bias.

As Table 2.1 shows above, the gender identity of participants in the sample of medical educators and students was relatively even: 16 male students, 14 female students, 32 male educators, and 28 female educators. The educator ratio mirrors broader trends in medical school faculties, where women are underrepresented; however, my sample might overstate the degree to which female faculty hold positions of leadership in medical schools (Williams, Pecenco, and Blair-Loy 2013). Regarding racial composition, the educators were largely white, which also mirrors broader trends in medical school and academic faculties (AAMC 2016); of the 60 educators, only eight identified as persons of color. The medical students in my study exhibited more racial diversity, with 15 identifying as white and 15 identifying as students of color—as black or Latinx. By virtue of my snowball sampling strategy, my sample overstates the representation of students of color.

Interviews with Medical Educators

In the U.S., the school of medicine within an academic medical center is a very complex organization (Casalino 2004). There are several features to the school of medicine, a few largely encompassed under the tripartite mission of medical education: acquiring knowledge, conducting research, and gaining clinical expertise. First, with regard to acquiring knowledge, there is the MD program, which exists adjacently to other degree-granting professional programs, like MPH or PhD-granting graduate programs. This education branch of the school of medicine oversees the undergraduate medical education (UME), graduate medical education (GME), and continuing medical education (CME). Depending on the school, there are various offices and groups within

the UME branch. At some schools, there is a Department of Medical Education; however, most U.S. medical schools have an Office of Medical Education with deans and coordinators who advise students and faculty regarding the development, implementation, and evaluation of the UME curriculum.

Depending upon the school, the Office of Medical Education may take on other responsibilities, like community engagement, student affairs, and/or diversity. The importance of having an office or department for medical education is articulated by Dr. Brown, a humanities scholar in a top-ranked medical school: "One of the challenges of a big complex curriculum is: who knows everything that's being taught, who's got the 30,000-foot view. I mean I know what I teach in my course but I don't know what's taught in the other courses that are also offered. Trying to figure out somewhat who knows everything and figuring out a way of tracking that is surprisingly challenging. You have to have a good database that you can search to say, 'all right, cultural competency appears in lecture one in this course and in lecture five in that course and this learning objective is here and there and you know mapping that out.'"

Some schools of medicine organize their UME students into learning communities. These learning communities have a program coordinator, who is responsible for overseeing the faculty leading small groups and attending to the student concerns about their learning. At all schools—regardless of whether there are learning communities or not—there are course directors for various sequences within the preclinical (first 18-24 months of medical school) and clerkship (final 24-30 months of medical school). These sequences may entail instruction in the basic sciences (e.g., microbiology), social sciences (e.g., anthropology), clinical sciences (e.g., anatomy), or the practice of medicine (e.g., interviewing a patient).

Second, with regard to the research wing of schools of medicine, there are various departments that conduct basic science or applied clinical research. Many of the faculty that teach medical students in the preclinical are pulled from these departments (e.g., biochemistry, physics). These faculty have less sustained engagement with medical students because students rotate through curricular topics so quickly—often spending just 4-6 weeks on a particular topic. Third, with regard to the clinical practice dimension of schools of medicine, there are clinical faculty who teach, advise, and lead students when they are doing their clinical rotations in the UME.

I have conducted 30 in-depth, semi-structured interviews with medical educators to understand how the medical profession values the humanities and social sciences for cultivating the idealized physician. A medical educator, in most instances, has been formally trained as a physician; however, there has been a recent rise in the professionalization of medical education, and therefore there are also medical educators who have not formally trained as MDs (Hafferty and O'Donnell 2015). Of the 30 medical educators in this part of my sample, 25 held an MD, 2 held an EdD, and 3 held a PhD in a biomedical discipline (e.g., cell biology, chemistry, neurobiology). Therefore, these educators are largely faculty members with clinical experience.

Inclusion criteria for these medical educators was based upon their intellectual, administrative, or professional contribution to medical education, on the one hand, and their employment at a major university with an academic medical center, on the other. To meet the former criterion, the medical educator must have had some formal involvement with curricular development, evaluation, implementation, coordination, facilitation, or instruction, though they did not have to identify this work as their primary academic or professional objective. To meet the latter criterion, the educator must have been appointed within an accredited MD-granting institution.

The interviews allowed the "official" arbiters of medical education reform and design to describe how they developed and evaluated curricular interventions, why they wanted (or did not want) to include the humanities and social sciences into their curriculum, and what these bodies of knowledge meant to them (Morning 2011). Further, they were able to explain some of the challenges and opportunities that impacted the incorporation of the humanities and social sciences into their UME curriculum, describing the curriculum that they would ideally have had, as compared to the curriculum they were able to implement, and the discrepancies that arose between the two (Shim 2014).

Interviews with Humanities and Social Sciences Scholars

I have conducted 15 in-depth, semi-structured interviews with humanities scholars and 15 interviews with social science scholars that work toward incorporating the humanities and social sciences into their UME curriculum. The rationale for interviewing equal amounts of humanities and social science scholars involved in medical education was to disentangle the two areas of academic knowledge incorporation; see where they intersect, collaborate, and disagree; and understand their separate and joint degrees of success in implementing their knowledge into medical education.

Similar to medical educators, inclusion criteria for these humanities and social sciences scholars was based upon their intellectual, administrative, or professional contributions to medical education on the one hand, and their employment at a major university with an academic medical center on the other. To meet the former criterion, the scholar must have either published a peer-reviewed article about medical education or have been a member of a professional organization, university-based workgroup, curricular committee, or instructor-team that sought to incorporate

the humanities and social sciences into medical education though they did not have to identify this work as their primary academic or professional objective (Shim 2014). To meet the latter criterion, the scholar must have been appointed either within a traditional department in a humanities or social science discipline, an area studies department, an interdisciplinary center or program, or within a professional school (medicine, public health, or nursing) at a university with an academic medical center.

Practically speaking, this sample includes scholars who teach medical students but also teach undergraduate students, scholars who teach solely medical students, and scholars who design curriculum for medical students and oversee courses. In other words, at minimum, these scholars have a tangible relationship to medical students at their institution. They may also be engaged in research on medical education; however, that is not required. The courses and curriculum that these scholars tend to be involved in varies by institution, as the following empirical chapters will show; by and large, though, these humanities and social sciences scholars' main curricular engagement occurs in either foundational courses on their discipline, lecturing in or facilitating a Practice of Medicine sequence course on the "how to doctor" part of medicine, or leading elective programming on their discipline or a variety of humanities and social sciences disciplines.

The amount of faculty or administrators devoted to education—and education research—is a critical dimension of how a medical school is structured. For the present analysis, it is important because these scholars, and social scientists, in particular, are often valued in schools of medicine precisely because they have the methodological training to conduct both clinical *and* education research. They get in the door through these means, and if they are not swallowed up by the exigencies of the academic medicine career tracks, then they might be able to execute their agenda. That said, their agenda might not be an *agenda*, per se. There are no uniform professional

pushes or resources for humanities and social science scholars to draw upon in the medical education field, so they are on their own. Most scholars I spoke with ended up in academic medical centers either accidentally or as a backup plan.

A humanities scholar, Dr. Rogers, explained, "I think a lot of people who 'just' have a PhD in a humanities or social sciences field who are appointed as professors in the medical school are surprised they are there or think that this was not a part of their original plan." As another respondent, Dr. Pultz, who had a PhD in anthropology stated, "if you would have told me that I would be a professor in a medical school, I would have been like, 'you are shitting me.' I was resoundingly antagonistic, like, 'fuck you, medicine' as a graduate student studying the field." One social scientist, Dr. Geronimos, described how during their postdoc they became fascinated watching "how curriculum was being conceptualized, like the debates around what constitutes relevance, what do we mean, like who gets the resources if we think of teaching as symbolic capital. Those fights between the different constituents—and they were very collegial—but they reminded me a lot of political state-type of relationships." These scholars are adept in these spaces, though, especially if they have training in qualitative methods. As Dr. Bettles mentioned, "in general the med school stuff I've learned on the job and I think it is really important to be good at doing ethnography of real life for this." In explaining to me how they act strategically in faculty or decision-making meetings, Dr. Warner said how "now, I'm like, 'okay, if I can get what I want using your words, because I know it's the same thing, and I can sort of, more covertly throw it in there, I'm happy."

The interviews allowed the "official" knowledge producers to describe how they define their research, conceptualize their curricular interventions, and understand their—and their knowledge's—role in medical education (Morning 2011). Further, the interviews gave scholars

the space to explain what problems and difficulties they encountered in conducting and implementing their work, describing the work that they would ideally have done, as compared to the work that they were able to do, and the discrepancies that arose between the two (Shim 2014). In addition to asking these scholars to reflect on their work at their institution, I also asked them to consider the contributions of their discipline at large.

Interviews with Medical Students

I have conducted 30 in-depth, semi-structured interviews with medical students to understand how the consumers of medical education value—and absorb—the humanities and social sciences for future clinical practice. To account for any influence of undergraduate major, I selected 15 students with biomedical backgrounds and 15 with liberal arts backgrounds. Inclusion criteria for these medical students was based upon their enrollment at a medical school at a major university with an academic medical center and their completion of a component of the curriculum with humanistic or social scientific material. The interviews allowed the "official" consumers of medical education curricular changes to describe how they received the curricular interventions, what they found to be the relevant features of the humanities and social scienes in their training, and what this knowledge meant to them (Morning 2011). Further, the students were able to situate these curricula within their broader training (Raz and Fadlon 2006).

CURRICULAR AND INSTITUTIONAL DATA

Regarding curricular data, to identify the exhaustive set of accredited, MD-granting institutions in the U.S., I first used the Organization Directory list on the AAMC website. This list contains the addresses and websites of each of these schools. Then, I cross-referenced this list with

the *Medical School Directory of Accredited MD Programs in the U.S.* on the LCME website. I downloaded the LCME list and created a master spreadsheet in Excel, where each school constituted a row; I deleted schools from the analysis that were in the process of becoming accredited because they were newly formed institutions or newly brought under the jurisdiction of the LCME (e.g., Kaiser Permanente School of Medicine in Pasadena, CA; San Juan Bautista School of Medicine in San Juan, Puerto Rico). The master spreadsheet list consisted of 137 MD-granting institutions, total, at the close of 2018.

While every single medical school has a website, they vary in their navigation organization and amount of content. In general, they all contain information about the history of the school; the school's leadership and administration; the school's mission and diversity statements; the admissions procedures and requirements; the research facilities and foci; the clinical and other discipline departments; the centers, institutes, and programs; the students' resources; and, the curriculum. Not every medical school's website lists which faculty members are teaching particular courses, so I did not systematically code that information for every school. Before I gathered any particular data, I visited the websites of the schools where I had interviewed faculty and students, because I had a better idea of their curricular practices. With this preliminary investigation, of these schools, I began outlining the types of curricular information available.

While some medical schools provided reams of curricular information, replete with syllabi, lesson plans, assessments, and evaluations, there were three main categories of data that were pertinent and available at each medical school. The first were the course descriptions of each course in Year 1, Year 2, Year 3, and Year 4. These course descriptions contained the title of the course and what was taught in it. The second category of information was the curricular map, which indicated what course was taught when, over the course of each academic year. These

schematic representations contained little description of the course but indicated how much time was dedicated to a particular topic and when the course was taught. Both the first and second categories capture the curricular *requirements*; the third category of data was the descriptions of electives and extracurricular programing that were *optional* for students.

I gathered every piece of available data pertaining to the curricular requirements and electives; sometimes, this entailed me copying and pasting the information from the website into a Word document, other times, this entailed me downloading the PDF attachments featured on the website. The approach that the school took to organizing the information on the website patterned how easily I could access this information; some schools placed the information on curricular requirements under "Students" in their navigation, others under "Academics", and still others under "Department of Medical Education"; regarding the electives, sometimes this information was listed under the "Centers" tab, other times it was featured with the information on curricular requirements. While some schools included a description of extra-curricular offerings (e.g., book club, art and humanities day, etc.) on their website (N=82), others did not (N=55). Sometimes it was listed with the curriculum, other times it was listed under "Student Life", "Student Affairs", or "About" and contained in either a brochure for prospective students or a student manual or handbook for current students.

The three categories of data that I gathered were uploaded to the Dedoose platform, which is a software used for qualitative analysis. I also uploaded other information about each school, which I capture in my description of the institutional features data that follows. With regard to the curricular data, I coded the course descriptions, curricular maps, and electives at every school. I coded the course descriptions and curricular maps as a collective, determining whether one was foundational or symbolic curriculum; I coded the electives separately. Therefore, the requirements

were one unit of analysis and the electives another, which has implications for whether these curricula are mutually exclusive. The symbolic curriculum and therapeutic curriculum are, by definition, not mutually exclusive. Depending on the subject at hand, the foundational curriculum is mutually exclusive with regard to the symbolic curriculum and therapeutic curriculum. In other words, if a single school has the foundational curriculum for the humanities, then that school does not have the therapeutic curriculum; if a school has the foundational curriculum for the social sciences, then that school does not have the symbolic curriculum.

I coded the curricular data after I inductively analyzed the interview data; therefore, I created a simple deductive coding structure based off of the inductive codes. I included: Foundational Curriculum, Symbolic Curriculum, Electives in Humanities, Practice of Medicine (POM) Course, Use of Small Groups, Use of Lecture, and Biomedical Curriculum. The Use of Small Groups and Use of Lecture were sub-codes contained under the POM Course code. I applied all of these codes to the requirements, with the exception of the Electives in Humanities code, which was only applied to electives. As such, the Electives in Humanities code was used any time the humanities were mentioned as an elective or extra-curricular offering; because I do not have exhaustive data on extracurricular offerings, it is possible that I could have missed schools that offer the humanities as an elective. In addition, the lack of comprehensive data did not allow me to code these parts of the curricular data according to an inductively-generated Therapeutic Curriculum code, because often just a course title was listed rather than a description of the contents and goals of the course. Rooted in my analysis of my interview data, I believe it is plausible that these Electives in Humanities could take on the form of the therapeutic curriculum; however, the data does not allow me to definitively assert such a claim.

Based on my analysis of the interviews, I determined that a curricular incorporation strategy should be coded as Foundational Curriculum when the humanities and social sciences were required and either a standalone block (4-8 weeks) or an embedded sequence of knowledge throughout the UME. This information was more often than not captured in the course descriptions of the "core" or "foundational" curriculum; most curricular maps only had course titles, length of time, and when it was taught, so they were not as useful to see the content of these courses. The central way in which I differentiated the Foundational Curriculum code as opposed to the Symbolic Curriculum code when it came to the social sciences was by a) the amount of time dedicated to instruction, and, b) the content. While the Foundational Curriculum contained critical and interpretive social science and humanities, the Symbolic Curriculum was positivistic or skills-based inclusions of social science. I utilized the Symbolic Curriculum code when the social sciences were taught in a brief (1-2 week or 1-3 day) intersession or in the clinical skills section—that is, the POM Course sequence—of the UME. The curricular maps were helpful in the former regard, because I could locate when and how long these subjects were taught.

Similarly, I coded the POM Course to capture the instruction of doctoring and clinical skills; when the Practice of Medicine course was also the curricular location for the social sciences, I would code the course description as both POM Course and Symbolic Curriculum. Within the course descriptions that I coded as POM Course, I would also code them if they described using small groups or lectures, in which I would use the following codes, respectively: Use of Small Groups and Use of Lectures. Finally, I also applied the code Biomedical Curriculum to all of the curricular content devoted to basic and clinical sciences.

In each empirical chapter, when I report frequencies and provide examples from the curricular data, these findings are based upon the analytical strategy reported above. As I report in

Table 2.2, 14 schools have the foundational curriculum, 127 schools have the symbolic curriculum, 113 schools have electives in the humanities, and 104 schools teach social science topics in the small group setting. In addition, I noted whether students were required to conduct research or participate in community service or if they just had the option to engage in these activities. I excluded any sort of MD-PhD programming with all categories in this sample.

Another type of data from this project consist of publicly available information about the institutional features from the 137 MD-granting institutions in the U.S. These data contextualize the variation in social sciences and humanities curricula within medical education; I was motivated to identify these features based on the theoretical framework I elaborated in Chapter One, in an attempt to identify important components of the intellectual infrastructure. I built a profile for each medical school; in each profile, I recorded the institutional type, location, research and primary care rank (according to U.S. News & Reports), leadership's disciplinary and demographic backgrounds, student demographic backgrounds, pipeline programs, centers, and departments.

I created deductive codes for these independent variables. For example, regarding the institutional type of private or public, in my interviews, respondents often noted that the more financial resources they had, the better. Ostensibly, private institutions have more money than public institutions; however, recent research on the degree to which a private/public dichotomy makes sense given the amount of federal funding of research calls this into question (Loss 2017). With location, I noted whether the medical school was located in an urban, rural, or suburban setting. Just like with the sampling procedure with the interviews, I determined the rank of the school by research and primary care by consulting the U.S. News & Reports rankings system.

Table 2.2: Institutional Features Data

Institutional Feature	Codes	Raw (N=137)	Percent
Type	private	53	38.7%
	Public	84	61.3%
Location	urban	85	62%
	rural/suburban	52	38%
Rank			
Research	top-30	30	21.9%
	not top-30	107	78.1%
Primary Care	top-30	30	21.9%
	not top-30	107	78.1%
Intellectual resources			
Proximity to undergraduate	no affiliation	23	16.8%
	not close	43	31.4%
	close	71	51.8%
Research centers	none	50	36.5%
	center for social science	52	38%
	center for humanities	13	9.5%
	both	22	16%
Departments	none	105	76.7%
	department of social science	24	17.5%
	department of humanities	5	3.6%
	both	3	2.2%
Leadership Representation			
Disciplinary	MD	120	87.6%
	PhD (biomedical)	6	4.4%
	MD-PhD	11	8%
Demographic	white male	105	76.7%
	white female	19	13.9%
	male of color	10	7.3%
	female of color	3	2.2%
Student Representation	less than 13% students of color	91	66.4%
	between 13-26%	27	19.7%
	more than 26%	9	6.6%
Curriculum	foundational	14	10.2%
(not mutually exclusive)	symbolic	127	92.7%
	elective in humanities*	113	82.5%
	small group instruction on social topics**	104	75.9%
Research	required	41	29.9%
	optional	96	70.1%
Community service	required	52	38%
	optional	85	62%

*Suggestive of the therapeutic curriculum
**Suggestive of the conscripted curriculum

Regarding intellectual resources, I was interested in noticing whether the medical school was close to an undergraduate campus to see whether medical educators could plausibly collaborate with humanities and social sciences departments in other divisions of campus. While what it means to be "close" could be open to interpretation, I decided that around 30 minutes or so walking distance was considered close, but beyond that it was not. I also noted if the medical school had no affiliation with an undergraduate institution. With the variable of the research center, I captured whether institutions had research centers with a social science or humanities foci, both, or none at all. I did the same practice with the variable of departments within the medical school. It is an important distinction to make between centers and departments—although they tend to run together—because each encapsulate different assemblages of power and also resources (Stevens, Miller-Idriss, and Shami 2018).

For the leadership representation, I scoured the AAMC website looking for institutionally specific data on faculty demographic information. Unfortunately, the data on each institution's faculty demographics is not available to the public, which is why I only report the Dean's racial and gender information. For student representation, I used data that medical schools report to the AAMC on the racial and ethnic background of students. I tallied students of color and white students to capture the institution's commitment to enrolling students from underrepresented backgrounds. On medical schools' websites, I noticed a discrepancy between what the school tried to highlight in its diversity statement and whether that actually was supported by their admissions policies and enrolled student population. Many schools did not present data on their website about the students' disciplinary backgrounds, and if anything was listed about students' academics, it was more about MCAT and GPA.

OBSERVATIONAL DATA

Finally, I engaged in non-participant observation to better understand the nature and purpose of the humanities and social sciences in medical education, along with the opportunities and challenges that these interventions face in medical education (Lofland and Lofland 1995; Shim 2014). These observations occurred at scientific, pedagogical, and professional conferences like the AAMC annual Medical Education meeting where the humanities and social sciences in medical education was presented and discussed. I attended this meeting three years in a row. These conferences had around 1,800 medical educators in attendance. Attendees held varying degrees (e.g., MD, PhD, EdD, MedD, MA, MHP) in a variety of fields (e.g., basic sciences, social sciences, humanities, education). In addition, they held varying degrees of power in their medical school (e.g., deans, associate deans, professors, clinical/adjunct professors, residency coordinators, UME coordinators, residents, and medical students).

The AAMC annual Medical Education centered on the latest curricular and pedagogical developments. Subsections include Regional, Undergraduate Medical Education (UME), Graduate Medical Education (GME), Continuing Medical Education (CME), Medical Education Scholarship, Student Affairs, Educational Affairs, Information Technology, and Dean groups. At these conferences, the sessions throughout the day varied in content and length. There were relatively few panels compared to the American Sociological Association's annual meeting. The six central formats for the sessions were: (1) "update" by a certain speaker of a certain organization about the latest standard, particular finding, or proceedings from a meeting; (2) paper presentation and discussion of one preselected paper that was a review paper of a particular topic in medical education; (3) a workshop where a number of educators presented briefly on a topic and then had the audience members engage in an exercise to teach them how the presentation is relevant to

medical education and how to use it in their own educational efforts and research; (4) a panel with 3 papers and a discussant; (5) a business meeting for a particular organizational body; and (6) a reception of a particular group or the entire AAMC Medical Education meeting attendees.

In addition to downloading the PowerPoint slides from the talks, I also took notes during my observation and completed field notes when I returned home. I found the Q&A sequence following a presentation to be the most illuminating about the central opportunities and tensions present when educators attempt to integrate the social sciences and humanities. I do not intend to be able to make conclusive claims based upon my field notes, but rather hope that observing discussions give me a more complete picture of how medical educators debate these strategies of incorporation.

ANALYTIC STRATEGY

This project is a framework for understanding how the medical profession views humanistic and social scientific knowledge for medical education as well as how scholars from different disciplinary backgrounds navigate epistemological and methodological differences and succeed in installing the humanities and social sciences into applied contexts. With the curricular, institutional, and observational data, I situated the successes, failures, constructions of humanistic and social scientific knowledge's relevance for medicine, and negotiations of interdisciplinary work within the broader social, cultural, interprofessional, and organizational environment. With the interviews, I identified contemporary conceptualizations of the value of the humanities and social sciences for clinical practice, the challenges and opportunities that educators from different disciplines face in attempting to collaborate in the implementation of this knowledge into medical education, and the overall impressions of the success and failure of their attempts. All texts, field

notes, and interviews were uploaded into Dedoose software for Mac computers and stored in a secure, password-protected computer.

In compliance with human research protection protocol, I have kept the identifying information about participants and their affiliated institutions confidential. I present data using pseudonyms and generalized language to discuss the respondents and their schools. All texts and material have been coded and recoded, tagging specific excerpts and then aggregating codes; the field notes were used as supplementary memos, and have not been systematically coded. Coding was inspired by grounded theory (Glaser and Strauss 1967) and done in an iterative and reciprocal process of deduction and induction—deductive codes were based upon theoretical interests (e.g., institutional rank, prestige, positivistic social science, instrumentalization) and inductive codes have been generated from patterns in the data (e.g., burnout, clinical relevance, student labor).

For the inductive codes, initial coding with the interview data was line by line where I focused on words that reflected action, like gerunds (e.g., "branding", "developing", "resisting", "describing", "discussing", "valuing", "devolving"). I then would think about what processes were occurring and whether there were any tacit assumptions and sequencing at work (e.g., "depicting the humanities as a part of the school's brand", "describing the students as pivotal to the instruction of social science", "devolving the responsibility for wellbeing onto students themselves"). Therefore, this analysis is an attempt to explicate the implicit actions and meanings and then compare them to the explicit actions and meanings articulated in the curricular data, which were coded according to the independent and dependent variables described above (Charmaz 2006). All four strategies of incorporation were found inductively by analyzing the structure, objectives, explanations, and impacts of inclusions of the humanities and social sciences in medical education.

In this analysis, my positionality was relevant in that most educators viewed me as a student they could explain things to, and most students saw me as a peer. For Chapter Six in particular, my positionality as a white, cis-gender female was important for the context of the in-person interview with both participants of color and white participants. I believe that my questions about the curriculum (e.g., how was race taught, is race-as-a-social-construct taught, and is racism taught) signaled my concern about how race holds powerful social meanings in U.S. society (Omi and Winant 1994). With white students and educators, I had to ask many iterations of the question about how matters of race were taught in their medical school; with faculty and students of color, I did not need to repeatedly reformulate this type of question. This data collection experience inspired chapter six's analysis on the impact of the conscripted curriculum, as the initial research questions of the project were not set up to evaluate how medical schools perpetuate racial inequality. Moreover, the findings about the emotional toll of the instruction of race on students of color emerged inductively, as I was initially coding the interview data.

This analysis is limited in a few ways: self-selection bias; small sample of students to draw larger conclusions; data only on learning not practicing medicine; and, no DO schools just MD schools. First, the sample of educators and students are constrained by my choices as a researcher as well as the willingness of potential respondents to participate. There is a chance the educators and students may have been more willing to participate than their peers, and therefore my findings may capture a more exuberant set of educators and students. While that may be the case, I think that my finding that such a rare few schools are able to achieve the foundational curriculum despite many more wanting to do it—and having the enthusiasm to do it—is even more striking.

Second, my small sample of students limits the degree to which my findings represent experiences of students at other medical schools; however, work by the national student group

White Coats 4 Black Lives corroborate the claims made in Chapter Six on the conscripted curriculum. That said, while the curricular emphasis of my research is well suited to allow me to argue that medical educators could *potentially* create a disproportionately harmful environment for medical students of color in the Practice of Medicine small groups, I do not claim that these types of consequences for students are occurring at every medical school.

Third, my data focus on what students learn, not how they practice. The UME is just one phase in a long series of educational experiences that physicians will undergo. The decision to teach visual diagnostic skills with art, or the decision to not instruct students about the social construction of race in a didactic setting, or the decision to provide students with a therapeutic book club, could have different effects on actual clinical practice. And, while my respondents articulated reservations about the longstanding effects of these curricular practices, I think that some of the most supportive statements that buttress the effects of these curriculum came from the medical educators and students who had clinical experience, a point I will return to in Chapter Seven.

A fourth and final limitation is that my analysis is limited to MD-granting institutions. I excluded DO (Doctor of Osteopathy) from the analysis because these schools tend to be viewed as second-tier institutions for training physicians (Jenkins 2018). DO schools, however, have a more holistic, complementary and alternative medicine tradition as compared to MD schools, so there is a possibility that more of these institutions have the foundational curriculum. That said, these schools tend to have less funding, less prestige, and less personnel—that is, less intellectual infrastructure—so I believe that it would be unlikely to see the foundational curriculum at these institutions.

CHAPTER 3: FOUNDATIONAL CURRICULUM

In this chapter, I detail a strategy of incorporation that is most unlike the other three strategies; however, this curricular practice aligns with the earlier inclusion of the humanities before the 1970s, as detailed in Chapter One, albeit with different disciplinary emphases. While before the 1970s, medical educators largely incorporated history and behavioral science, today, as I will show, the educators who are able to successfully enact a *foundational curriculum* are much more likely incorporate anthropology or literature. The foundational curriculum is an approach to instruction most consistent with the transmission of discipline-specific humanities and social sciences knowledge in their particular home disciplines. The foundational curriculum is steeped in educators' deep commitment to the notion that physicians must know the social context of their patients and hone their critical and observational skills for the clinic. I find two ways in which educators enact the foundational curriculum: an immersive, seminar-style course or an embedded, longitudinal thread (see Table 3.1 and Figure 3.1, below, for examples of course titles and a visual representation of where these courses are located in the UME curriculum).

With the foundational curriculum, educators draw upon the concepts, theories, methods, and critical approach of humanities and social sciences disciplines to help future physicians better understand not only their patients but also themselves and the healthcare system that they work within. Most significantly—and in contrast to the therapeutic and conscripted curriculum—with the foundational curriculum strategy, educators take responsibility for instruction. In fact, the leaders of medical schools actively seek out and draw upon the expertise of humanities and social sciences scholars in the curricular development processes (including faculty development, course development, requirement development) and in the actual instruction of these courses. Educators

in these instances conceptualize humanities and/or the social sciences as foundational to—or inseparable from—medical students' training to become physicians.

My finding is informed by my analysis of the interview and curricular data. At first, I identified the foundational curriculum by inductively analyzing my interviews; because I over-sampled at top-ranking institutions, I spoke to respondents at 10 of the 14 institutions that engage in foundational curricular practices. In analyzing my interview data, the foundational curriculum stood out in contrast to the other three curricular practices due to its required nature, the length of time educators spent teaching on the topic, and the critical and interpretative content from social sciences and humanities that comprised this curriculum. I identified the remaining four institutions by creating a deductive foundational curriculum code and applying it to an exhaustive set of curricular data from 137 medical schools. By focusing on the school-specific organizational resources that allow the foundational curriculum to flourish at these elite institutions and not others, I also draw attention to why other schools fail. I argue that medical educators successfully achieve the idealized education of future physicians when they have the intellectual infrastructure—or, funding, prestige, and personnel supportive of the critical and interpretive humanities and social sciences—to facilitate the foundational curriculum effectively.

As I will show in this chapter, the educators who enact the foundational curriculum have the money and time to build it, the desire to make the inclusion of a particular social sciences or humanities subject a recruitment tool and important dimension of their institution's prestigious brand, and the personnel with the skill to adeptly win over their audience at their institution to garner support and protect their strategy of incorporation. As a result, this curricular incorporation strategy yields a couple of impacts. First, students that I spoke with report the humanities and social sciences as integral knowledge and building blocks for their future careers as clinicians,

which stands in striking contrast to their peers at institutions that do not employ the foundational curriculum. Second, the foundational curriculum impacts how the humanities and social sciences scholars involved in medical education see their work and understand the tensions they face. Most importantly, for the purpose of this analysis, the foundational curriculum establishes a model of what is possible as a strategy of incorporation.

This chapter is organized as follows: First, I will describe the foundational curriculum in greater detail. Second, I will explain how a few medical schools are able to enact the foundational curriculum utilizing the framework of intellectual infrastructure. Third, I will describe the impacts of this curriculum on students and faculty. And finally, I will conclude with a brief discussion of the implications the foundational curriculum has for the remaining strategies of incorporation at other medical schools.

DESCRIPTION

Given that only 14 of 137 medical schools enact the foundational curriculum, it is clear that it is infrequent when educators at a school of medicine can integrate the humanities and social sciences in ways that are most "true" to their home disciplines. Educators achieve this with immersive, wholesale importation and embedded, longitudinal threading that *all* students are required to participate in. Immersive foundational curriculum occurs when the humanities or social science subject is taught like graduate students within that discipline would learn about it. In other instances, the foundational curriculum is enacted in a more embedded, longitudinal approach. As opposed to integrating the humanities or social sciences in a single course, longitudinal threading refers to a multiple-year and -course investment in its instruction to frequently and consistently remind students of the subject's significance to their future clinical practice.

To give a picture of how the embedded foundational curriculum operates, take the following example from a top-ranked medical school and their *Social and Health Systems (SHS)* course. While its presence in the preclinical curriculum can be seen in the schematic below (Figure 3.1), the course description is as follows:

> This course explores the socio-cultural, political, legal, and ethical dimensions of medical care through research, discussion, and integration with concepts from the basic sciences and body systems. The core of this course is the directed discussion that takes place in seminar groups. Course faculty members come from clinical, social science, and humanities backgrounds, bringing significant experience in interdisciplinary research and teaching to the seminar sessions. This course meets once a week for 1.5 hours.

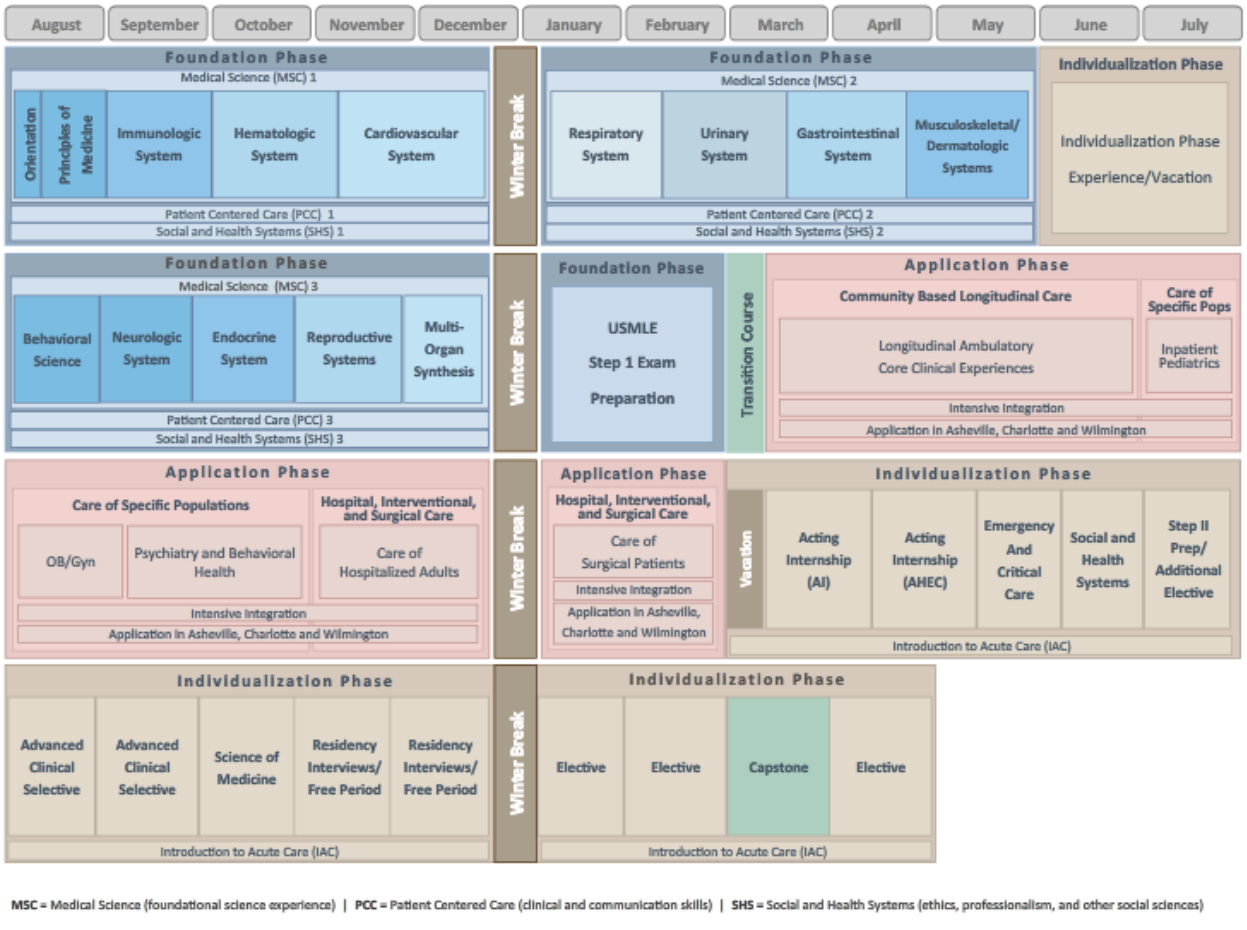

Figure 3.1: Foundational Curriculum Schematic

This course runs for the first 14 months of UME alongside the biomedical (e.g., *Immunological System*) and the clinical skills content (e.g, *Patient Centered Care*) and then students return to this with a block after their clinical rotations in the June of their third year (Figure 3.1).

Immersive Foundational Curriculum

In medical school, the Undergraduate Medical Education (UME) is organized into 4- to 8-week blocks, and in the case of the immersive foundational curriculum, a humanities or social science subject would constitute an entire block, where medical students enroll in something akin to a short version of a graduate seminar in a literature or anthropology department. When I was conducting my interviews, I would ask respondents where in their curriculum they included the humanities and social sciences (see Table 3.1 below for a list of all of the course titles).

Table 3.1: Foundational Curriculum Course Titles

Social Context of Medicine and the American Health Care System
The Health of Our City
Genes to Society
Medicine and Society
Medicine in Contemporary Society
Social and Health Systems
Health Systems Science
Health Care Disparities in America: Equity and Advocacy
Race and Medical Care: Contemporary Issues
Humanities and Social Sciences
Narrative Medicine
Humanities Backstory Rounds
Visual Thinking Strategies
Humanities, Bioethics, and Compassionate Care

As an example of when a course is immersive, below is a course description from a *Social Context of Medicine in the American Health Care System* course from a top-ranked school from my curricular data:

> In week 1, you see the impact of health and illness on the lives of patients and their loved ones. You will start to look beyond immediate measures of health toward the many upstream determinants of health that impact the patients' lives. In week 2, you explore how patients' culture, community, religion and spirituality impact their health and experience of illness. In week 3, you consider the various health-related systems that can impact a person's health and illness, including the health care system, the public health systems and the role of quality improvement. The block finishes in week 4 by contemplating the importance of each individual physician in health promotion, where you will delve into the myriad ways that physicians can advocate for health, whether it be for a single patient or for an entire population.

Regarding the blocks, one sociologist I spoke to at a top-ranked institution, Dr. Vasquez, complimented the leadership of his institution by saying, "to their credit, they created [a] block within the first year that's focused on social sciences and health policy and it's required of all first-year students." The goal for this block, according to Dr. Vasquez, was to have students utilize sociological concepts in their overall framework for understanding a patient. Ideally, as Dr. Vasquez explained, students then would approach each patient with the following thought process: "Is it something at a cellular or organism level, is it something that's happening within the social behavioral scene, is it within a larger cultural sphere of the institutions within which the patient is embedded or structural types of inequality or disempowerment that are impacting health, or is it the larger fact related to social policy or global environmental factors?"

For Dr. Vasquez, the ideal doctor-patient encounter was premised on the doctor being able to draw upon both their biological and sociological knowledge to reach an accurate diagnostic conclusion. To achieve these ends, the way in which educators create these classes is through assignments that draw distinctly from the conceptual and methodological training of the field. In detailing how they incorporate sociology into their course for medical students, another sociologist at a top-ranked institution I interviewed, Dr. Dema, explained,

> They write. Their first written assignment is a personal illness reflection. They examine their health behaviors, their illness behaviors, what their families thought about pain and what it was like when they went to the doctors. We wanted them to

> think about how they learn about being sick and about being a good patient. Then we go out in pairs to home visits with community volunteers, and after they make two home visits they have to write a narrative about the people they interviewed. So the idea is that first you practice on yourself learning about what an illness narrative is, and then you try to understand and describe someone else's.

Similar to an assignment in a medical sociology seminar, students in this course have scaffolded assignments to build their understanding of sociological concepts of illness and illness narratives as well as particular ethnographic methods for observing, gathering, and reflecting on data. In another course found in the set of curricular data, *Health Systems Science*, which "takes a broad look at the multiple complex social, environmental and systems factors that impact human health and healthcare in the U.S.," students are told explicitly that this course "provides vital foundational knowledge essential for the future practice of medicine, regardless of ultimate specialty choice." This emphasis on the essential nature of this course is supported by the format and evaluative structure of the course: "The course is delivered through a combination of lecture, small group discussion and case studies, as well as a flipped classroom model with pre-assigned readings and completion of asynchronous online assignments as well as verbal and written reflection components."

Thus, as simple as this point may be, the students are held accountable for learning the concepts by having homework—which is in contrast to the therapeutic, symbolic, and conscripted curricula. In addition to signaling the importance of the course material by requiring students to do homework, educators also communicated how foundational the knowledge was to future clinical work. For example, take the following course description of an anthropology seminar entitled *Race and Medical Care: Contemporary Issues* at one top-ranked medical school that I found during my analysis of curricular data:

> This course introduces the student to contemporary issues relevant to the medical care of U.S. racial minorities from the perspective of interdisciplinary social and

> behavioral science. The course begins with an examination of biomedicine as a cultural system and a critical examination of "culture and cultural competence" to analytically situate the rest of the course material. Issues covered throughout the course include the role of power in health care access, the intersection of immigration, social relationships and health, gender, reproduction, culture, social structure, and political economy. Discussion will be focused on analyzing how the experience of health and illness is shaped by these factors and, consequently, how racial minorities are interpreted and constructed through the lens of medicine. To orient the discussion toward possibilities for future social change that would benefit underserved populations, readings on social influence and examples of social change in the U.S. are also included.

In this course, student evaluation was premised on required class attendance, weekly questions and comments posted on the discussion board, in-class discussion participation, and a midterm and final paper. In light of these requirements, medical students are engaged in learning just as graduate students in an anthropology seminar would be learning.

Pivotal here is the amount of time, content, and faculty expertise. For example, the *Health Care Disparities in America: Equity and Advocacy* course at another top-ranked institution, required for all students in their first year at that medical school covers comprehensive social science content and, as the following course description shows, also draws upon researchers: "This course gives students an overview of disparities that exist in health and health care in the United States across categories such as race, gender, socioeconomic status, age, and sexual orientation. The course includes lectures and small group sessions led by health care researchers and culminates in a small group project that explores an aspect of health care disparities in detail."

When educators enact the foundational curriculum strategy of incorporation, they thus make the critical and interpretive knowledge seem paramount. For example, at one top-ranked private institution, students are required to take a course on *Essential Knowledge*. At this school, educators design the Practice of Medicine (POM) sequence as supplementary to this core *Essential Knowledge* course, which, similar to the style of instruction in Figure 3.1, is a "concurrent

sequence of foundational basic and social sciences courses." First-year students taking the course "will be taught the social and population science relevant to the practice of medicine… clinical epidemiology, population health, healthcare policy, social medicine, medical ethics, and professionalism." The second iteration of this course in Year 2 builds upon these foundations that "taught students how to think critically about medical knowledge and how to understand the social and political contexts of health and health care in the United States." In this Year 2 seminar, students learn to evaluate the role of healthcare providers in achieving health equity as well as explore possible avenues for healthcare reform. This finding that the critical and interpretive knowledge is emphasized diverges from the way in which most schools end up including the social sciences as delimited amounts of positivistic facts or in skills development.

With the above instances that I drew from the interview and curricular data I gathered, students are held accountable for the readings and their engagement with the material. I want to flag the structural and cultural commitment these educators signal with these immersive courses. They convey that social science is an essential building block of medicine; this valuation of the social sciences is precisely what sets the foundational curriculum apart from other curricula. The amount and type of content contained in this course is in stark contrast to the symbolic or conscripted curriculum style of instruction with regard to social understandings and inequalities.

If the immersive foundational curriculum in the social sciences is closest to something like sociology for sociology's sake as taught to sociology graduate students, where the humanities are concerned, it is also like literature for literature's sake as taught to literature graduate students. In a humanities course taught according to the foundational curriculum strategy of incorporation, the medical students would learn along the lines of a course in a literature department where students learn critical approaches to reading texts, which is a different appreciation of the humanities than

including the humanities as a therapeutic curriculum. At one top-ranked institution, students had a choice between art or literature. The art course met nine times for 2½ hours, and was described as follows:

> This course will utilize interactions with art as a means of enhancing visual diagnostic and communication skills as they relate to physical diagnosis. The course will emphasize participation in art observation sessions at the Museum. Students will learn a variety of approaches to exploring and describing art; simultaneously, they will learn about correlative ideas and approaches regarding observation and description in physical diagnosis through discussions led by medical practitioners. Readings and journal assignments will introduce students to both artistic concepts and their medical correlates. Students will also participate in a drawing workshop and in-patient rounds at Hospital. As students' observational and descriptive skills develop into a foundation of visual comprehension, they will be challenged with new artistic and medical material.

As this course description captures, students learn from the expertise of art curators at the Museum, whose expertise is valued alongside medical practitioners or clinical faculty. Learning a new way to pay attention to detail, through a close examination of art, these students will learn to improve as diagnosticians and communicators. They have readings to do, journal assignments to complete, concepts to learn; the students are accountable for the material.

The literature course, like the art course, is depicted in contrasting terms to the way in which the humanities were integrated in the therapeutic curriculum. When the humanities are incorporated as foundational curriculum, these disciplines are appreciated for their ability to impact clinical practice. As an example of the literature course at this same institution, take the following course description:

> This course will use close reading of classic literature to explore questions of mortality, ethics, and compassion that arise in the practice of medicine. We will consider how we preserve our compassion and care for dying patients in the face of our own mortality, the arbitrariness of sickness and health, and other ethical and existential issues that arise in our daily practice of medicine. Readings will include fiction and nonfiction by William Carlos Williams, Anton Chekhov, Peter Shaffer, Leo Tolstoy, Mary Shelly, John Updike, and others.

Proponents of the foundational curriculum believe the humanities to be essential to enhancing the critical and interpretive abilities of future doctors, albeit in different ways than the social sciences. A humanities scholar who runs a literature seminar in the medical school, Dr. Camara, said students "appreciate learning how to read critically, learning how to ask critical questions, learning how to listen." Dr. Morris voiced a similar opinion, arguing that "it's crazy to think that the two fields [humanities and medicine] would be separated. They are both the study of the human condition, just approached differently." He went on to say that the literature course "teaches habits and self-reflection. And I think that creates a different type of person. A type of person that I think makes a better doctor. I don't think that books make better doctors. Sitting and talking about books and really thinking about it systematically and learning to consider all types of issues systematically creates people who are more careful in types of judgment that matters." To belabor the point, Dr. Morris shows the inseparable nature of the humanities and medicine and that it is through rigorous study—reading and discussing systematically, that students will improve as physicians who must engage in making very consequential decisions.

The educators who were able to integrate the humanities into medical education spoke of how the close reading of texts or analysis of images simply were more effective than a lecture. For example, to teach students about the complexity of patients and importance of being non-judgmental, Dr. Sampson explained that literature could be more powerful than a lecture: "I just thought of a really beautiful poem by a Harvard professor, physician, and poet named Rafael Campo. He describes this heroin-addicted mom and her baby, and you have one view, which is a pretty judgmental view of her as a terrible mother. Then his last line is like, 'she holds her baby and sings to him at night.' It doesn't eliminate the fact that she's a drug addict and her baby was born addicted but it shifts things. You have to see her as a loving mother also. That's just one tiny

example of what literature can do." These immersive foundational courses thus provide students with dedicated time and faculty to guide their acquisition of knowledge (and skills) in the social sciences and humanities.

Before I describe the embedded foundational curriculum, it is worth noting that educators who were able to pull off a foundational curriculum felt torn between the immersion and embedded models. As Dr. Sampson mentioned, "it's really hard to figure out structures that are more compatible with the message that we're trying to convey. I think format is super important and really needs to be considered carefully." According to the educators in my sample and observed at conferences, the upside to immersion is that students build a foundational understanding of how the social sciences or humanities would guide their approach to clinical practice under the control of the humanities and social sciences scholars; they can teach the entire 4-8 week block. However, in the embedded model, the advantage is that students may get to learn these fundamental knowledge and skills and have them reinforced by multiple instructors from different disciplinary backgrounds.

Dr. Robinson, a Dean of Undergraduate Medical Education at a top-ranked institution, articulated this tension, or challenge, in greater detail to me when describing how the course directors deliberate, regarding the incorporation of the social sciences:

> There's a faculty or two faculty who are responsible for that theme and are looking at all the different places it might show up in the curriculum. You know there's all this critique of not calling out specific issues around, for example, race. But then you want it to be woven in so it's not just here's your one-hour race but rather it's folded into a lot of the discussions. But it also has to be called out specifically because otherwise sometimes if it's woven into *too* well, then they don't see it. So the folks who are working on the theme are looking at a lot of issues around that. What are the case examples that are used, how are those examples used, do they reinforce stereotypes or do they open up other ways of broadening people's ideas and understanding of different populations? There's an effort, too, to coordinate across all 18 months, and even I think we're really looking at ways to incorporate the themes into clinical training as well.

Dr. Robinson, in pointing out the challenges of embedding the content rather than creating an immersive course block, also illuminates how these educators are proactively thinking through how to ensure that the social scientific knowledge they present does not get reductive. At one institution, their solution to this tension was to engage in both immersive and embedded foundational curriculum. In this top-ranked school's course description and curricular map, they described that with the humanities, during the preclinical curriculum, they require students to complete humanities coursework every Tuesday morning, then, during clerkships, they require students to describe their rounding experiences and analyze it. Then, they must take a four-week immersive humanities course after they have finished their clinical rotations.

Embedded Foundational Curriculum

The other manifestation of the foundational curriculum is the embedded approach. With the embedded foundational curriculum, educators integrate humanities or social sciences learning objectives throughout various curricular activities. Like the inclusion of material about the social understanding and implications of race throughout the lectures on organ systems, or like the integration of literary theory into weekly assignments where students practice active interpretation and reflection, the idea is that by being embedded, students will be reminded about how foundational these sets of knowledge are for their clinical routine. For example, as Dr. Williams, a medical educator whose doctorate was in literature, told me, her approach to including the humanities was predicated on its "hook onto topics being addressed in the basic science curriculum:"

> We look at issues relevant to medicine, health, identity development, and examine them through stories, narrative non-fiction, poetry, film clips, and so on. For example, in the second year we look at cancer. That's where we might watch *Wit* or read Christopher Hitchens' essays that he wrote as he was dying. We've done

> the Henrietta Lacks book for the infectious disease module. A story allows a reader to look behind, above, and around what's going on with, say, a person who is sick, who is suffering. A story asks us to look at tone, setting; like why it is important to look at the specific setting of a story. All elements of fiction can be transferred to the clinical setting in really important ways. Many people think that the humanities inquiry in medical education is just about promoting empathy. And if that happens, great; but it's much more of a critical undertaking than just that. There are skills that are directly transferrable to the doctor-patient relationship.

Similarly, Dr. Rogers, an historian whose position entails teaching the required humanities content to the first- and third-year medical students at a top-ranked institution, described how he will teach the students to "take a look at the second line of this poem and to focus on a word to show them how sometimes the choice of a single word drastically alters the content, and therefore, the diagnosis that they might give somebody."

As a part of the committee that oversees the development and implementation of the curriculum, Dr. Brown, a humanities scholar at a top-ranked institution explained why they take an embedded approach with the foundational curriculum. He said, "we try to integrate those issues throughout the curriculum because I think it sends a stronger message if they are taught in anatomy and cardiology and microbiology everything. That this matters for all these things—it is not just that you only have to care about it when you're taking your humanities course." With the embedded foundational curriculum, therefore, educators want to build this knowledge into the conceptual, decision-making processes, just as other pieces of biomedical knowledge are integrated.

The embedded nature might extend beyond the classroom, too. When I asked Dr. Gutierrez, a Dean of Medical Education at a top-ranked medical school, about how they linked the content in the lectures to students' clinical education, she said:

> The delivery of the content is largely about small, structured, sequential lectures with experts who come in and provide the kind of content, but we also do a fair amount of active learning. So it's not really lecture per se, but it's still

> fundamentally classroom-based education. But then from that there are pieces that they are expected to take back out in a practicum kind of way over the course of three years. Sometimes it's as explicit as weekly deliverables; like you've just learned this, now go—this week when you're at the clinic you must do the following three things that will show you the implications of this. So for instance, when they get their workshop on social determinants of health, then one of their deliverables is for the next ten patients they see they have to do a quick questionnaire to see which of those factors then apply to the patients who come in, the next ten patients who come in. To get a sense that this is a real thing; that the patients that you're actually seeing in your clinic really do have these issues; they really do impact their ability to access health and move the dial on their own wellness.

As she articulates, at her institution the embeddedness of this foundational content extends beyond the lecture or small group and into the clinical practice component of their education.

In addition, when embedding social scientific understandings into biomedical lectures, educators might fundamentally disrupt previous approaches to medical education. With the case of race in medicine, for example, Dr. Grossmith, who taught the social construction of race in different organ-based lectures at her top-ranked institution, said this embedded approach serves as a corrective to problematic biological conceptions of race. As a part of my data collection, I attended the annual AAMC Medical Education meetings and I observed one session, where an educator summarized the difference between biological and social scientific understandings of race for her audience as a part of a curriculum workshop:

> Typically the dominant belief is that race is a biological fact, that races are biologically distinct groups, that humans can be divided into races on easily discernable physical characteristics, that these external characteristics represent some underlying biological differences, and that those underlying biological differences explain differences in group outcomes and behavior. What I want to suggest is a more accurate approach is to think about race as a social fact. Race is not a thing that people are, or that they have, but it's an action. Race is something that we do. It's a way to define in groups and out groups; us versus them; to determine rights; to determine our obligations to one another; to determine who is part of our extended family. We know that group membership shapes our experiences and accesses to opportunities, right? So being in the in group or the dominant group has its privileges, including educational quality, employment opportunities, living conditions, neighborhood resources and social networks.

What was so remarkable about this presentation of a social scientific understanding of race was that the audience was in awe. Audience members asked for the presenter's slides and for more resources. They asked her how to teach this in the Q&A period. Leveraging her MD-PhD credentials, a point which I will return to later, this educator explained how important it was to teach this understanding of race *any time* race was brought up as a salient variable. Thus, in contrast to the symbolic and the conscripted curriculum, when it comes to the instruction of social categories like race, educators engaged in the foundational curricular practices proactively provide social scientific data and concepts to students—and other faculty—that challenge the dominant biomedical framework.

At another top-ranked institution, where I had the opportunity to interview an educator with a social sciences background, a student, as well as examine the curriculum, the educators went as far as describing the racist practices that undergirded the developments in biomedical technologies, treatments, and knowledge—everything from the invention of the spirometer to the Tuskegee Syphillis Study. At yet another institution, where I had a similar data triangulation process, students and faculty learned concepts such as white fragility and structural racism, partnering with their institution's Sociology Department in the instruction.

Regarding the humanities, one common foundational curriculum approach is the use of art to teach "visual thinking strategies". Some educators embedded these learning approaches in their lectures, linking the act of viewing art and thinking through what it represents or means, to defending one's interpretation with visual evidence. The goal was to enhance clinical skills: first, by practicing this process of observation-interpretation-evidence-reflection-conclusion, and second, by grappling with different perspectives of the same image, as the observation to conclusion process completed by one person may differ from another person. Another example of

embedded foundational curriculum stems from a school of medicine that held regular listening sessions with live jazz musicians, as the director of the humanities curricula at a top research and primary care medical school Dr. Burke explains: "It's a listening program for the first-year medical students where we teach them about the value of listening and the importance of that; how hard it is and how hard it is to do well, and all the challenges of listening when you're a doctor. So we use music to engage students on sort of a different level; like a sensory experiential level, and to have them practices listening skills during the session."

Another example of how the humanities are integrated in a foundational manner, one that would fundamentally shape how a future doctor might approach their professional work, take Dr. Busler, a humanities scholar who works at a top-ranked medical school, who described a lecture where she teaches medical students about critical understandings of the body from a humanities perspective, to contextualize what they are learning in the anatomy lab or in their organ-based lecture series:

> We start by saying, all right, the body-as-specimen. So, it's this sort of, how does medical education create people who view body in a very particular way, just like parts? Like a med student. They do gross anatomy first. They might be dissecting an arthritic knee, then they see an x-ray of an arthritic knee, then they see slides of what arthritis looks like on a cellular level, and then, in year three, somebody walks into their office with their arthritic knee. So, what is that person going to see? They don't see the arthritic knee embedded into a person. So, body-as-specimen. Then, we talk about body-as-patient. So, like narratives and first-person stories and other ways in which we can learn about the illness experience through art, visual art, or narrative, or storytelling. Then, we do body-as-spectacle. We talk about the metaphors that are associated with abnormal or extraordinary bodies. There are obese bodies, tattooed bodies, or ill bodies. How that might influence not only how people experience their illness, but how physicians then treat those people with those illnesses? How do those three things intersect for a med student when somebody walks through their clinic door?

As yet another example of an embedded humanities approach, a course at an elite, top-ranked institution has students participate in Narrative Medicine seminars in order to "enhance

their ability to receive, comprehend, and represent the stories of illness and suffering." Narrative Medicine is portrayed as a compassionate antidote to the clinician's frustration of not getting the "facts" when they need to make a decision. It teaches clinicians what to do with stories, serves as a medium for curiosity, intuition, and wonder, and adds to the clinician's investment in the patient by expanding their capacity to perceive and attend to the patient. In their first two years at this top-ranked medical school, students are placed into a small group and meet weekly with their preceptor, where they engage in Narrative Medicine work. As another example of how humanities scholars may choose to embed the humanities into the curriculum, I'll draw upon Dr. Rogers, who utilizes an example from queer studies to tease out the two different approaches:

> There are two ways we can talk about doing queer studies: queer people as a noun and queer as a verb. You have to start using them as a noun. Who are these people? What are the issues? What are the places? What are the institutions? Look at the letters LGBT and see how you can get them more into your curriculum, in your scholarship, in your work. That means, literally, having to push, insert, inject, shoe horn in content that wasn't there before. And that strategy everybody gets. But you also need to think about queer as a verb, which is what you do when you look at a text. Instead of saying "I'm going to read this book about a lesbian novelist," you say, "I'm going to read this book about a novelist and queer it." You're manipulating it, you're adjusting it, you're distorting it in a way to see what else it has to offer. I think we need to add more L, more G, more B, more T, more stuff. Then we need to take subjects we are already focusing on, like death and dying, this and that, and change the protagonist. Change the location of the venue. Change the demographic. We need to take the curriculum of what we do day in and day out and see where there are moments where humanities might be inserted in there.

Dr. Rogers went on to say that both modes of integration were essential for the future of medical education and, he, along with other respondents in my sample, described the humanities as having the potential to impart analytical skills, attention to detail, search for voice and perspective—all beneficial knowledge and skills for future clinical practice. Social sciences scholars, too, articulated that when enacted as foundational curriculum, students would learn the fundamental interpretive building blocks to the political, structural, and behavioral conditions that shape how

illness experience, access to health, and the distribution of inequalities, as well as critically examine biomedicine as a culture in and of itself. In sum, as this section on the foundational curriculum shows, when educators enact this curricular strategy of incorporation, they are cultivating future physicians with the critical and interpretive capacities of this idealized physician.

EXPLANATION

As the subsequent empirical chapters about educators' attempts at integrating the social sciences and humanities into U.S. medical education will show, when educators teach the foundational curriculum, it is truly an achievement. Not only do these educators have to fight cultural understandings of knowledge that devalue the social sciences and humanities as "socially and existentially determined" compared to the biomedical sciences as "immanently determined" (Shapin 1992:335), but they also exist in an organizational context that makes institutional change, in general, difficult (DiMaggio and Powell 1983). Given the nature of my data on the contemporary inclusion of the humanities and social sciences in curriculum, and the history of these curriculum as showing that they are desired, in this section I will be focusing on medical educators and particular institutions are able to sustain vibrant foundational curriculum in the face of epistemic and organizational barriers.

To transition to explaining how it is possible to achieve the foundational curriculum, I want to highlight that as I explain the success of the few schools who were able to do the foundational curriculum I am also beginning to explain the multitudes who failed, albeit in different ways. In the context of the academic medical center and the school of medicine, there are a number of epistemic and organizational barriers to including these more robust incorporations of the humanities and social sciences, best exemplified in the following statement by Dr. Rivas, an educator at a middle-ranked institution. When I asked him about whether they had any humanities

or social sciences in their curriculum, he said, "Oh yeah, there's all kinds of barriers to any piece of anything you want to include. There's time, there's money, there's buy-in; three pretty good ones. Time, money, buy-in. People don't want to do it, or don't have the time to do it, or there are not the resources to support doing it. Other than that, it's an almost flawless plan." The buy-in Dr. Rivas refers to signifies the epistemic barrier of convincing clinical and basic sciences faculty to value the critical and interpretive knowledge for clinical practice and resisting field-wide pressures that might constrain the contribution of these fields. Time and money point to organizational barriers, which are also significant.

It is remarkable when educators are able to overcome these epistemic and organizational barriers and incorporate the humanities and social sciences wholesale into the medical school curriculum. There are three important components that explain how some schools are able to adopt the foundational curriculum. The central context that allows for the creation of the foundational curriculum is the strong intellectual infrastructure—specifically, the money, status, and availability of humanities and social sciences faculty—that these elite institutions possess. Because not every elite medical school enacts the foundational curriculum, this subset of elite institutions perceive the humanities and social sciences as part of their prestigious institutional brand and have humanities and social sciences faculty who are adept at skillfully showing the significance of their subjects.

Strong Intellectual Infrastructure

All fourteen of the schools that have the foundational curriculum are elite institutions. And, as elite institutions, it was clear that they had more resources to be able to afford or facilitate the strategy of incorporation that I call the foundational curriculum. Strong financial backing afforded

elite institutions the opportunity to hire faculty from diverse disciplinary backgrounds and pay clinical faculty to facilitate discussions on embedded humanities and social sciences topics. For example, with clinical faculty, as Dr. Dema, a sociologist at a top-ranked institution, explained to me, "when we absolutely insist on having a mixed faculty cohort of clinicians and social science and humanities scholars, in order to have our clinical colleagues teach with us, we have to pay their clinical time, or from their point of view, lost revenue, which can get expensive."

But, as Dr. Dema goes on to elaborate, these investments are worth it, because they allow for a distribution of power that allows for the knowledge to be viewed as having equal epistemological status; in other words, it allows there to be no science/non-science divide as there is at most other schools. Describing the benefits of being in an interdisciplinary department, Dr. Dema stated, "it's kind of a half ark, there's one of each of us." They went on, explaining:

> There's so much going on from so many different perspectives that intellectually you're always learning and expanding. I really value that and one of the things that's great about having such a diverse faculty is that we all teach each other. We meet as a faculty before each class and discuss how we're going to teach the class what materials we're using. We have a common syllabus, but everybody's free to you know add and subtract… one of the things that's important about the culture of this department is the idea that nobody is in charge and everybody's is charge and nobody's jargon or theoretical approach gets to trump anybody else's. We develop because we have to be intelligible to each other and that the default is "oh, I'm going to learn something new here" rather than "I want to be around people who think like I do."

A strong intellectual infrastructure is premised on evenly distributed power between humanities and social sciences faculty, on the one hand, and clinical faculty on the other, when it comes to the curriculum. To establish the foundational curriculum, funding for social sciences and humanities faculty is thus paramount. Dr. Ribeiro claimed that his top-ranked institution's funding allowed them to "establish a program to organize all of those humanities classes. So that's the

infrastructure, now all those classes have a faculty advisor who's there from year to year, who can kind of oversee the continuity."

In describing how they were able to get the faculty and facilities for their social science department, one social scientist at a top-ranked medical school, Dr. Perez, said that they were "lucky because [Big Donor] gave a hundred million dollars to the medical school." The funding, in this sense, was pivotal to the establishment of tenure-track lines for three more scholars in the social science department within the medical school. These positions are quite helpful because, as medical educator Dr. Engle explained to me when I asked about challenges to the inclusion of humanities or social sciences at their institution, "the obstacle ends up being not interest or understanding of the importance of the opportunity; but more just kind of funding logistics. It turns out that the incentive systems for the medical school and the undergraduate institution are really misaligned, and it's actually difficult for the undergraduate system to pay me in the coin of my realm, or for the medical school to pay an anthropologist in the coin of their realm."

Dr. Pultz, a social scientist at a middle-ranked institution, made the importance of having the resources to hire an expert quite clear when I asked her a follow-up question to understand why she said they don't have the "luxury" of teaching the discipline of history: "You know we're not like Harvard; we don't have PhDs who can teach all this stuff. So we would love to teach history of medicine but the only people who can teach it are semi-retired physicians who have 19th century academia style interests in history. They want to teach sort of great man narratives. Students say that teaching is boring and irrelevant. You know my response would be well I'm with the students on that one, but we can't hire a real historian." Elite institutions also have the capacity to keep their faculty. One social scientist at a middle-ranked institution, Dr. Mogin, described how "if we lose two or three people because they go to another institution that can be our entire capacity."

Therefore, elite institutions have the financial resources to build the intellectual infrastructure needed to facilitate and sustain a foundational curriculum.

Educators that had career stability, or the freedom that comes with tenure or a revenue stream from a clinic, were able to build up teaching materials and publications that preserved the integrity of the foundational curriculum they wished to teach. Coming from the undergraduate campus to the medical school, Dr. Sampson explained, "I was very fortunate, because by the time I switched to medical humanities, I was a tenured professor, so I had a lot of academic freedom to try things if I could just get students to participate." Even medical educators who were clinicians noted how career stability enabled them to be more receptive to the humanities or social sciences, as Dr. Shah, a medical educator at a top-ranked institution articulated,

> I think again easy for me, the one with gray hair who has as much medical expertise as I'm ever going to have it's easy for me to say well—there ways of knowing ways of being reflected in other disciplines. And those are fundamentally worthwhile. So what the sociologist tells me about my work environment is fundamentally valuable information—can be really valuable in enriching the work that I'm doing. Again I think it's easy for me to say that because I come from a stance of being pretty established and comfortable with my own level of expertise.

In fact, like tenure, a clinical income provided some educators with the flexibility required for the foundational curriculum. Clinics allow MD-PhDs the freedom to teach these courses without putting their careers completely on the line.

As Dr. Brown said, "in my situation my career was not about being a historian of medicine. I never really was paid to do that I mean I am a little tiny bit. I didn't have that kind of turf sensibility." Both Dr. Shah and Dr. Brown point to how their comfortability with their level of expertise or reimbursement structure allowed them to support a foundational curriculum. Dr. Wright elaborated that the payment structure of the clinical versus academic track could allow him, as a MD-PhD at a top-ranked institution, to do "Half time clinical work and then basically

volunteer work as an academic; because the half time clinical salaries are essentially the equivalent to full time academic salaries of junior faculty. You had complete job security because there's no physician unemployment in the U.S. As long as you have any creditability as a scholar you know programs like the ones that exist places that have social science will be happy to have a competent person teaching for free."

In contrast, as an untenured sociologist in a Department of Medical Education, Dr. Bettles protects herself and does not go as far as she would like with the foundational curriculum:

> I think there needs to be lot more and I'm protecting myself as an untenured person and not teaching an elective. Whereas I could and they would want me to, but I'm not doing that because that's not expected of me, so I'm not doing it. So I don't pipe up from the audience very often and correct people or things like that, which is something I would want to do maybe but I can't. But my job is mainly research and because I'm focused on research, it's not as much of sociology in the curriculum.

In Dr. Bettles' case, she does not push for a foundational curriculum because she does not yet have tenure. Thus, the financial resources—and what they facilitate in terms of time and faculty—of elite institutions, allow these institutions to build up their intellectual infrastructure to help support the foundational curriculum. In other words, these institutions place humanities and social sciences scholars in positions of influence.

The Humanities and Social Sciences as a Mark of Prestige

While the schools that were able to achieve the foundational curriculum tended to be elite institutions, not all elite institutions achieved the foundational curriculum. There was a pervasive sentiment among my respondents that each school was different than the other, or, as Dr. Warner said, "every school is going to have to find their own model and what works with their local culture and their faculty." When explored further, by examining the curricular and institutional data, it became clear to me that these elite schools that did not include humanities and social sciences as

foundational curriculum were more likely to emphasize biomedical and entrepreneurial innovation.

From their opening webpage to their curricular threads, the elite schools that do not have foundational curriculum laud biomedical research and discovery, individualized treatment innovation and prevention, healthcare systems leadership, and customizing the learning experience to the individual student. Instead of having the humanities and social sciences as the what set them apart from their competitors in their field, these elite institutions emphasized courses like *Creating Healthcare and Life Sciences Ventures* and *Physicians as Leaders*, in response to the "rapidly advancing scientific discoveries and emerging innovations in medical technologies." In contrast, the elite institutions where educators implemented the foundational curriculum highlighted compassion, critical thinking, social justice, and empathy as curricular outcomes.

Perhaps it is because these educators are keen to preserve their status as elite institutions, or compete in the elite field, that they will tout the prestige these foundational curricular practices might bring to the institution. Dr. Stern, a medical educator at a top-ranked institution, explained how funding and prestige loomed large over their efforts to begin implementing a foundational curriculum:

> When our clinical school sees that something like this is popular—we did a little bit of research and we found that a number of medical schools have programs like that, so that was influential. We also had to show that we had people willing to donate, and we found some small donors. You know, all the things that the school looked for. Does it come with prestige or money?

Dr. Stern's medical school was willing to accept the foundational curriculum if it meant they could protect their status as an elite institution by garnering more prestige and growing their endowment. Thus, elite institutions have certain characteristics, from deep pockets to an interest to remain prestigious, that facilitate the establishment of the foundational curriculum.

Therefore, the second major component needed to explain how educators incorporate the humanities and social sciences within the curriculum has to do with institutional branding, a major buttress to intellectual infrastructure. Educators from all disciplinary backgrounds described their foundational curriculum with pride. Whether extolling their program as "by far the largest, most prestigious, most extensive, most long standing" as Dr. Rogers does, or noting how "totally off the charts in terms of U.S. medical schools" their social science immersion was, as Dr. Wright does, or claiming that their "extensive" social sciences curriculum was "one of the reasons students came" to their institution as Dr. Dema does, the notion abounded that the foundational curriculum was, as Dr. Brown noted, a "selling point" for their institution. In fact, when I asked Dr. Brown whether there were any faculty he had to convince of the importance of his humanities curriculum, he went on to say: "The head of admissions has told me on numerous occasions 'you know this is a great recruiting tool. I mean all of the prospective medical students love it they find it so interesting that you're doing this at the medical school. They never see this at any of the other medical schools.' So it's like a recruiting tool for our institution so you know it's just opposite of having to convince people." Some educators even noted that "some of our better students came because of the medical humanities program," as Dr. Morris did.

Some schools, like the institution that Dr. Williams teaches in, deliberately recruit students "who were going to be more well-rounded, more humanistically-focused, more creative types—and that would eventually parlay into having a different kind of culture in the medical school and different kinds of physicians." This may be a privilege of the more top, elite institutions, as Dr. Rogers described that they have "the pick of the litter, getting to have students who are pretty tolerant and are open minded" coming from a "pretty activist-y background". Dr. Robinson, Dean

of UME at a top-school said that at her institution, "there are many students with so many interests about the humanities and social sciences and the broader vision of the role that medicine plays."

Medical schools, especially the ones at the very top of the prestige ladder, are in competition for the best and brightest students. Given the escalation of requirements for getting into medical school, possessing expertise in the humanities and social sciences is seen as a mark of distinction, and medical schools want to cater to these sensibilities in their students upon arrival. As a result, some of the top programs often discuss their humanities programming as a draw for students to continue cultivating their interests in the context of the medical school that was seen as "intellectually deadening."[38] For example, Dr. Geronimos described how the social sciences curriculum acted as a significant draw for students:

> At this point a lot of people will come to our institution because of its location and its commitment to work on the ground, paying attention to social determinants of health and health disparities, working with vulnerable and underprivileged populations. Many of them have come with an undergrad in anthropology or sociology, or something like that. Those are the ones that we primarily get because they're like, "oh my God, if I could use my brain in a different way, it will help keep me sane through med school."

Multiple respondents described the inclusion of the humanities as a way for students to flex different intellectual muscles, as they do in high school and college by taking different subjects, rather than the regressive nature of the standard medical education.

More than simply attracting the best students, educators described the humanities and social sciences brand as beneficial for the school's competitive edge in gaining prestigious residency spots. As Dr. Geronimos continued, "they also, if they're thinking about looking ahead

[38] Students I interviewed at these elite institutions also noted their peers' predilections toward the humanities in particular. One student, John, recounted that their institution is "very pro humanities," thinking that "30 percent of us were some sort of humanities or social science majors." Or, as another student Jennifer described, "We had a talent show at the end of second year. The interesting thing actually was that the talent show was really amazing because you'd have these people who would bounce in they'd be like 'hey you know I had been playing piano since I was two,' or 'I'm a professional this and professional that.' They would like put together some of these performances with your classmates that was pretty breathtaking."

to a residency at some place competitive that has a really strong community health angle, or has something they really want, having this degree really helps their residency applications." Students can pursue "scholarly concentrations" as a way to highlight their immersion in the humanities and social sciences disciplines. These courses will also be discussed in the Dean's letter for them when they apply to residency programs.[39] Therefore, one of the distinguishing features of elite institutions that have humanities and social sciences as foundational curriculum is how the institution embraces this as a "selling point" or brand. Not only did these institutions have the funding, prestige, and personnel to be able to create a curriculum that can go from "genes to society" or conceptualize the "humanities as compassionate care", but also the foundational curriculum was depicted as a part of their prestigious brand, further reinforcing the already strong intellectual infrastructure. This serves as an important support for the intellectual infrastructure because it justifies the need for this curriculum to the leadership and may indeed attract students who will continue to reinforce the high value placed on these disciplines. Moreover, some of the humanities and social sciences faculty at these very institutions have lead faculty development trainings and workshops for faculty from other institutions to come learn from the experts on these foundational curricular practices, further solidifying the association between the humanities and social sciences and their institution on the national stage.

Humanities and Social Sciences Scholars Leveraging Clinical Relevance

Moving from an institutional level analysis to an individual level analysis, the final component to explaining how some educators are able to maintain the foundational curriculum is

[39] As one top-ranked school's course description of a humanities course found in the curricular data notes, "once a semester, students write a Signature Reflection, which is stored in the student's portfolio and available as a point of reference when the students begin to apply to residency programs."

these humanities and social sciences medical educators' ability to code-switch and speak in terms of clinical relevance. By having flexibility in language, educators could make claims about the importance of the humanities and social sciences that resonated with clinical faculty—they were able to leverage clinical relevance in a way that allowed them to break through biomedical epistemic barriers but do so in a way that maintained the critical and interpretive dimension of their disciplines. Educators who successfully enacted the foundational curriculum discussed their flexibility with language, positioning themselves as translators between the "medical science" on the one hand and the humanities and social sciences on the other. For example, Dr. Grossmith explained that "one advantage" she had was that she "had actually taught science for so long to the medical students" that she could work with their language.

To be effective in enacting this mode of integration, social sciences scholars and humanities scholars must be adept at learning the science, not unlike what Rabinow and Bennett (2012) experienced in their ethnographic study. Dr. Mogin, an anthropologist on faculty at a medical school, described how he tries to "meet" students "where they are" when teaching them about the social construction perspective by describing how the meanings of illness evolve over time. He went on to say that he was "not some sort of Foucauldian clown and actually fortunate enough to write a book with a neurologist on Alzheimer's and I feel like I can make a pretty strong argument and also know the science which I think is very important when you work in this world." When there were MD-PhDs who had a PhD in a social science or humanities, they spoke of the flexibility they had as an asset in both overcoming epistemic barriers.

Dr. Wright, who holds a MD-PhD, argued the key was engaging the medical educators on the level of clinical relevance:

> For the average clinician what you can learn by studying history is actually pragmatically more useful than a lot of the basic science that you'll learn. When the

> basic science faculty hear that at first they just dismiss it right out. But if you can engage them in the conversation in the day to day life of a primary care clinician whose lessons are really more valuable for them. If they're thoughtful, they will eventually yield the case because you just don't need to know that much anatomy.

In fact, as I will discuss in more detail in Chapter Four on the symbolic curriculum, the beliefs of the basic scientists are often perceived to be more of a barrier that that of the clinical faculty, precisely because the resonance of the clinical relevance appeal.

As Dr. Vasquez, a MD-PhD, expounds upon, their dual degree was helpful for them for their clinical cache: "I think one of the reasons that it has been easy for me to have that qualitative work is that I'm also a clinician so I'm not just a qualitative researcher but, you know, for instance a couple of projects now are very much about certain improving quality of care in everyday clinical settings and the fact that I understand that world clinically I think is seen as an asset." This clinical cache is an asset for these educators to effectively make the case that the humanities and socials sciences are foundational to clinical practice. By either drawing upon—or appealing to—clinical experience, these educators further support the foundational curricular practices and would not be possible without the intellectual infrastructure at their institution.

Some humanities and social science educators described the skill it took in "sneaking in" more critical work from their home disciplines; they were sneaking this critical work in past these educational administrators at times. As Dr. Vasquez illustrated in more detail, it is precisely this group of education evaluators that they have to "justify" themselves to:

> That's the hardest group because there's this powerful medical education unit here that is really junk. You look at the research, it's just totally junk and if you're a trained, good methodological training as a sociologist, I'm like this is crap. But they passed judgment on our curriculum using the stupidest metric imaginable. They just come up with this stuff and then measure it bizarrely, and then they do these sloppy before and after comparisons and you're just like, what the—without any sense of what is our measurement model and what are we really trying to get at. It's populated mostly by people who some have an MD, some have an education degree, EdD or something like that and it's just the worst. So that's been our

> toughest fight and mostly just because where I sit in the university, because my role at the university is pretty expansive, I'm able to beat them down politically and I just want our curriculum to be responsible.

It is often within these courses that are required for all students and educators with social science or humanities expertise feel like they can teach what they want to teach. In describing how he approaches the instruction of cultural competence in a required lecture sequence on Patients and Society, Dr. Rogers explained how he always aspires to go beyond just the definition of the concept and also teach a "critique of the notion of cultural competency itself. We discussed race, gender, disability, and so on. What does this mean? What does the language look like? Where does it come from? How does it affect this population? What does that mean in the service you're giving them?"

Dr. Rogers said he was adept at "code switching", where he had to know when he had to "be explicit" about the purpose of the humanities for medicine to the administrators or when he could have his "full literary hat on". He elaborated further, "you have to have the ability to expand and collapse sometimes…and it's not a compromise more so than it is an adjustment, you know, to make the subject more palatable." While Dr. Rogers focused on what he would teach his students, Dr. Payne looked at sneaking in social science in a much more strategic way, by convincing the field of medical education that they, themselves, had come up with the idea in the first place. As she recounted, "medicine is so widely powerful that these types of subtleties of what's political science or sociology, they don't even have to think about that stuff. They're just like, whatever, we see something, we take it. They're so progressively dominant and so I feel like the key is to try to trick them into thinking that this thing that came out of sociology is actually something that a MD said." Dr. Payne thus recalls a strategy or social skill that educators like her

who enact foundational curricular practices use—they both play to clinical relevance and the dominance of the medical profession itself.[40]

The key with the flexibility of these educators is that they have expertise in the social sciences and humanities, which is why the strong intellectual infrastructure at these institutions is pivotal to enactment of the foundational curriculum. They know how to make effective claims to clinical faculty while they also can maintain the integrity of what they want to teach. Having these key personnel is a crucial component to the intellectual infrastructure and helps facilitate the foundational curriculum.

IMPACT

The foundational curriculum, consisting of immersive and embedded incorporations of humanities and social sciences knowledge and skills is made possible by educators at elite institutions who have the money, time, and personnel with expertise to teach these disciplines as foundational to clinical practice. With a strong intellectual infrastructure reflected and supported by brainidng and the social fluency of educators, there are impacts both on student learning and the scholars that are engaged with this instruction.

Impact on Student Learning

Students who participated in the foundational curriculum had a much more palpable appreciation for the humanities and social sciences in general and what it could do for them as

[40] As an interviewer, I experienced these situations where MDs would tell me about a social science concept as if it were invented by MDs. For example, when I asked one medical educator, Dr. Feldman, whether they taught anything on the social sciences to their students, she said: "Absolutely, we have a very specific term in medicine that looks at all of the factors outside of the individual that help to construct their environment. That's called the social determinants of health." The concept of social determinants of health crystallized in the social sciences external to medicine, especially with the work by Link and Phelan (1995); a similar phenomenon of appropriation has happened with the concept of "hidden curriculum" as Martimianakis et al. (2015) have written about.

future doctors. When discussing the humanities, students emphasized the importance of understanding the human condition. John, a third-year student at a top-ranked institution described why he thought his art course was helpful for him. He said, "I think that the humanities helps you understand that—get a fuller sense of people. You're caring for patients, you're not caring for like robots. So people are people and if you have an appreciation for the humanities, I think that helps you communicate with people, I think it helps you understand people, and I think it helps you connect with people." This finding is important because as the following empirical chapters will show, students who received the therapeutic, symbolic, or conscripted curriculum did not care nor think about how the humanities (nor social sciences) would improve their future clinical practice.

Similarly, after I asked Garrett about his experience with the narrative medicine coursework at his top-ranked institution, he went on to tell me that the humanities were important because, as medical students, they are "taking care of people." He elaborated:

> You should understand what the human experience is to fully be able to heal a human being. They talk about the difference between disease and illness. Disease is like the disease process and illness is like that plus the patient's experience of the disease process. So in medicine we treat both, hopefully. So if you don't understand the human part of things then obviously you can't truly connect with your patients and address all of their needs. On the bottom line I think that's what it's all about.

Jennifer, another student I interviewed, also maintained that her coursework in the humanities had strengthened her as a physician. She took a course on literature in medicine which required her to engage in a lot of reflective writing, both about the books and articles they were reading and how that related to what they were experiencing in the clinic. Specifically, she described how the practice of reflective writing became part of her future medical practice:

> You write a reflection. It was like "oh this week I was in the wards, and I was running around trying to impress everyone" kind of thing. I remember my most useful reflection was the first time I had a patient who I knew was going to die. I was the one who sort of diagnosed that he had lung cancer and as a med student you spend a lot of time with a person, so I got close to him. You know, you can get

> carried away and lost in running from one checkbox to the next. You can sometimes forget that you're dealing with a patient, and that patient can become a set of labs or a set of vital signs. I think reflective writing was great because it sort of built a foundation.

Instead of being perceived as meaningless or as a break, as students describe with receiving the therapeutic curriculum, the reflective writing methods of the literature course helped Jennifer build a foundation for her approach to taking the time to critically reflect and interpret her feelings as she grew as a physician.

With the social sciences, students described learning how to approach patients, how to critically evaluate biomedical knowledge, and even how to become an advocate for social justice. Evelyn, a third-year medical student at a top-ranked institution, was required to take a course in her first-year on the social foundations of illness. In response to my question about what she felt she learned from these sessions, she said:

> Well, to be aware of the community that we're going into what they're socio-economic status is. That we know what resources are available to them so that we're not telling them okay here's this medication but we're saying "okay this medication might be too expensive for you so let's give you this one." And also like in terms of coming up with a plan to insure that we don't just tell them "oh yeah you need to just go exercise and walk around your block." Well how can you go walk around the block when there's danger out there people shooting each other in the neighborhood? So those are the things that you know we've been exposed to, which is very valuable in knowing.

Again, it is the critical social scientific knowledge that Evelyn highlights as important in contradistinction to simply the skills. Evelyn describes being taught to take the patient's social context into account, pause, and see how that might challenge the routines of biomedical advice.

Similarly, Patrick, a third-year medical student at a top-ranked institution, described the purpose of his social sciences block in medical school as helping students to become "more compassionate, educated and persuasive; and to be champions for the underserved." Expanding upon this notion that physicians could be "champions for the underserved" was James, who felt

that the need for the social sciences extended both in the clinic and beyond after taking a course that was on the "essentials of social sciences":

> I think you need to be as aware as you can of what people are bringing to the exam room; what individuals bring based on their backgrounds and knowing how to ask those questions and understand everything else that's involved with their health is really important. And I also think that physicians are in a really unique position to advocate for specific policy changes and as a voice for communities. Physicians tend to be very well respected and be a voice for change, and I think if you don't know what the reality is then you can't do that. I think there's no question that there are health disparities by gender identity, by race; and if you don't know what those are and how to fix them then you just perpetuate them.

James sees the social sciences as challenging the medical profession to critically examine how they might be complicit in social inequalities. In sum, students that experience the foundational curriculum come to understand their future role as physicians as fundamentally intertwined with the knowledge and skills they learned in the humanities and social sciences. I want to emphasize the degree to which the critical and interpretive knowledge from the humanities and social sciences matters in this regard.

Impact on Humanities and Social Sciences Scholars

In this section, I'll draw upon interviews with social sciences and humanities educators in medical schools—both those that have done the foundational curriculum and those that are trying to do so—to elucidate the impact that undertaking this strategy of incorporation has on medical educators from these disciplinary backgrounds. Even within this foundational curriculum, not all humanities and social sciences scholars enjoy the work that they have cut out for them, in the sense that what makes them successful—appealing to clinical relevance—sometimes places an enormous amount of pressure on their own, personal teaching capabilities.

I will first describe a faculty member who delighted in his role. Dr. Carpano, who straddles the Department of Anthropology and the Department of Family Medicine at a top-ranked medical school, explained the merits of such a position as follows:

> One, it requires me to translate across anthropological and critical frameworks, meaning it requires me to defend what I think is disease really. It also requires me to defend how we come to know health and pathology and biology, and that's the epistemology. Then it requires me to translate that across frameworks so social, philosophical, clinical, bio-medical, bio-genetic and that is really interesting to me. Then it requires me to also navigate the teacher-student dynamic in ways that it's really fascinating to me. I mean I wouldn't have spent so much time looking at the medical phenomena if it didn't fascinate me.
>
> But medical students are really interesting because they are the best of the best of the best. They're really great, and they're told they're really great and they ultimately will get automatic six-figure salaries, and everyone worships them. They worship them, and I find that an interesting object lesson in power and of status and of privilege. That's really what I'm interested in is power privilege and status and how it reproduces itself in ways that fundamentally reproduce social hierarchy that's what makes me tick. So this class helps me up my game, keep me clear, translate across and engage with actors who at a moment of being able to have some influence on them; it's a moment in their careers to engage in that work as well. So it's also—it's teaching, it's educating, and it's transforming at the same time so that's what I really like about it.

Dr. Carpano is joint appointed in both his home discipline and the school of medicine. He both enjoyed the personal stimulation that having to "speak biomedicine" brought him, but also thought that this foundational curriculum would have a positive effect on future doctors.

A downside of this position of being able to teach the foundational curriculum is that faculty from social sciences and humanities backgrounds experienced immense pressure to do an exceptional job with their instructional tasks. As the linchpin in the intellectual infrastructure, they felt that the onus was on them to be smart, convincing, and articulate—that the vitality of the humanities or social sciences curriculum hinged on this performance so as to not "lose" students and their interest. In some cases, educators conveyed to me in the course of our interviews that they felt pressure from the competition that their humanities or social sciences courses received

from other material. After saying that they use many cutting-edge teaching techniques to get students to stay interested, Dr. Geronimos, who teaches a social sciences block at a top-ranked institution told me, "We're competing with basic science blocks where they have exams every week, and so it's—we have to be on our game."

Sometimes this pressure to do a good job is so overwhelming, that it signals that the institution does not have the intellectual infrastructure to support such a task. Take, for example, social sciences scholar, Dr. Seery, who described this responsibility to be near-perfect in more detail, alluding to the tension she and her colleagues feel in undertaking this instructional task at her middle-ranked institution. She was discussing how she had to approach a lecture to the entire cohort of first-year medical students and said,

> I'm trying to straighten my line. I may think that the economics of the issue are important, I may think the politics of the issue are important, I may think that the history of medical education is important, but if I take too meandering of a path, they're going to get off the sidewalk, and I'm going to be here by myself. But I have colleagues that would tell me that I am wrong. Who think that I just need to figure out a better way to make sure they walk with me on my meandering path. I'm torn sometimes, too. I really want—I feel like if I could just be a better lecturer, then they would get it. If I could just come up with a better example, they would get it. But I am using readings by scholars who I love, who I think are phenomenal at telling the social side to the illness experience, and how physicians can be better. The best that I have found, and it's still not working.

Dr. Seery pointed to how the responsibility to get these students on board resides firmly with her, something that another medical educator, Dr. Schumann, who was trying to get a foundational curricular practice incorporating the humanities off the ground at their institution experienced, too:

> I feel like I have to prove myself. Because there's only so far you can go on a leap of faith. I also have to run a program that actually is useful to people here. So that's my main job, and part of that is just being as involved as I can be and being – sort of becoming a valuable member of the community; doing work that benefits people and creating programs that benefit people. And then at some later date studying all of that to demonstrate impact. But it's hard; as we find in our research it's very hard to demonstrate impact because our classes sizes are small and our interventions are non-specific. And I don't think that anybody who is really turned off by the whole

> concept would ever be persuaded by the kind of data that we have accumulated. I don't think the data is ever going to be so unbelievably compelling that it's going to change somebody's mind. And it kind of makes me wonder why we're doing any of this research, because it's like either you are into in or you're not.

Between Dr. Carpano, who feels intellectually stimulated and satisfied, and Dr. Seery and Dr. Schumann who feel a pressure to do a better job teaching their students, it is clear that sometimes the intellectual infrastructure inheres in a single person. Some professors did not want that responsibility. Dr. Grossmith pointed out that this responsibility is often not something that she can justify pursuing, given her junior faculty status *and* career interests. Even though Dr. Grossmith teaches in an embedded foundational curriculum on the social sciences, she said that "I intentionally I have not taken over developing and implementing the curriculum on social topics in the med school because I'm on a different calendar so the calendar's really different and I don't want to lose the intellectual life of campus actually." Therefore, because the intellectual infrastructure is dependent upon humanities and social sciences faculty, it also places pressure on them to maintain the foundational curriculum.

CONCLUSION

In this chapter, I have shown the strategy of incorporation called the foundational curriculum, whereby medical educators incorporate the social sciences and humanities in a way that depicts the critical and interpretive lessons from these bodies of knowledge as foundational to clinical practice. Educators do so in two central ways: by creating immersive blocks within the sequence of courses or by embedding the content within the courses in a longitudinal fashion. With the humanities, these courses allow students to systematically engage with a piece of art or text, with the notion that students will learn habits of reflective clinical practice that will benefit the patient down the line. Similarly, with the social sciences, it is the future patient who will benefit

because the future physician will have learned about critical social structures that shape the distribution of health inequalities and the health care system. Empirically, this finding is important when taken in tandem with the other three strategies of incorporation—the therapeutic, symbolic, and conscripted curriculum—because it demonstrates *what is possible* and also demonstrates the only instances where students value these sets of knowledge *for* doctoring.

The foundational curriculum is an achievement because to sustain foundational curricular practices, educators need to have financial resources to support faculty to engage with its instruction, the belief that the humanities and social sciences are a part of their prestigious institutional brand, and the faculty who have the ability to depict the curriculum in clinically relevant terms while maintaining the integrity of their knowledge base. The finding that students who experience the foundational curriculum reach different understandings of the role of the humanities and social sciences in clinical practice is consistent with the broader literature on how cultural and organizational contexts matter in the socialization of students. Because the foundational curricular practices best approximate the vision of ideal physician knowledge and skills, and these fourteen schools show that it is possible and in the next three empirical chapters I will explain why most schools enact strategies of incorporation that do not achieve these curricular outcomes.

CHAPTER 4: THERAPEUTIC CURRICULUM

In contrast to the foundational curriculum, in this chapter, I describe a more common strategy of incorporating the humanities that medical educators utilize that I identified through my analysis of the interview data. In inductively generating a code for this curricular type, which I call the therapeutic curriculum, I aim to capture how medical educators offer students electives in the humanities as a stress-relieving mechanism. While merely suggestive of the therapeutic curriculum, based upon my analysis of curricular data, 113 of 137 medical schools *only* offer the humanities as an elective or extracurricular "enrichment activity." These courses or extracurricular activities, such as book clubs or talent shows, occur on a more infrequent and an entirely voluntary basis, not only making participation up to the student but also limiting the amount of instruction they receive from experts in the humanities (see Table 4.1 below for a list of examples that capture the variety of these electives). While the value of the humanities is expansive, in the case of the therapeutic curriculum, a very narrow, therapeutically- and instrumentally-oriented conceptualization of value is put forth by the medical profession, which is consistent with the epistemological evaluative culture of biomedicine that cannot see the relevance of the humanities on its own, intrinsic terms.[41] In one medical school's description of the electives, it said, "we value the art of healing—not just the science of it."

The educators in my sample and at the AAMC meetings, however, seemed eager to include the humanities, even at times invoking the foundational curriculum. For example, at the AAMC

[41] The gap between the instrumental value and the intrinsic value of a humanities discipline is large. As the former Minister of Humanities for the United Kingdom explained, when one restricts the value of the humanities to just the instrumental value, it leaves out: "Enthrallment; the sudden and non-negotiable apprehension of beauty; wonderment of aesthetic merit; the love of skill and craft; the communion across time of traditions the recognition of continuity; the appreciation of the astonishing, consummate, endeavor of fellow humans; absorption in the human predicaments described; the recognition of difference in time and circumstance as well as resemblance; and the nourishment of creative appetite and endeavor " (Rylance 2010:145).

annual meeting, I observed a panel on incorporating the humanities into the curriculum. In it, a presenter described how in an ideal scenario, they would teach a course on the history of medicine for all medical students where they would focus on the importance of understanding the past to help envision the physician's role in the present. They then offered practical implementation suggestions for the attendees in the audience that would be feasible with their budgets and personnel, suggestions that vastly reduced the time and engagement with the humanities discipline of history. They suggested that they could create celebrations for big historical events or have students talk to older faculty members about their experiences training. The educators in this audience all nodded their heads in agreement, as if these inclusions of "history" would be satisfying this desire to include the humanities.

Therefore, in this chapter, I will first describe what the therapeutic curriculum looks like and how its central objectives are articulated by educators that offer it. Second, I will explain how the therapeutic curriculum has become a popular strategy of incorporation. Third, I will show the impact that the therapeutic curriculum has on how students articulate the value of the humanities and how they think it might impact their future as doctors. I conclude with a discussion of how the therapeutic curriculum medicalizes the humanities, despite educators' belief that the therapeutic curriculum humanizes medicine. More pressingly, the therapeutic curriculum serves to individualize structural problems within the healthcare field.

More consequentially for sociologists of knowledge and humanities scholars themselves, when a humanities subject or course is envisaged to be responding to a crisis, then the knowledge, skills, and attitudes gleaned from that humanities material will be adapted to help physicians tackle whatever problem they are facing, such as the burnout crisis. Usually, medical educators are responding to a structural problem with solutions oriented to the individual. Rather than addressing

the original sources of students' depression, exhaustion, and disengagement, educators give students opportunities with the humanities that are intended to be cathartic, joyful experiences that build up students' resilience and teach them tools for wellness. In fact, it is precisely because these educators do not view the humanities as a challenge to the scientific status quo that the humanities are incorporated, as these educators depict the humanities as therapeutic curriculum and that they are seen as extracurricular supports to the *real* curriculum.

DESCRIPTION

The therapeutic curriculum strategy of incorporation differs in both structure and objective from the foundational curriculum detailed in Chapter 3, wherein medical educators require, test, and integrate humanities content into the undergraduate medical education curriculum with the hope that medical students will learn to enhance their critical, interpretive, reflective, and observational approach to clinical decision-making and patient interactions. However, more medical schools produce the therapeutic rather than foundational curriculum due to the amount of effort and intellectual infrastructure necessary to successfully create a foundational curriculum. And, similar to the symbolic curriculum which will be explained in Chapter 5, the therapeutic curriculum is also enabled by the existence of a compelling problem and appeals to clinical experience. At the AAMC annual meeting where I conducted non-participant observation, at first glance, I marveled about how the humanities seemed to face much less resistance than the social sciences when it came to their inclusion in the curriculum. In the Q&A sessions following panels on humanities-based curricula, attendees enthusiastically supported the use of the humanities, and the panelists often pitched the humanities as useful because they were therapeutic for the medical student, like they were rescuing the student from course boredom or offering a community to share

and alleviate one's fears. When asked if they had evidence of the effects of this, one panelist said, "you don't need data for this, everyone who participates feels good."

Art, music, literature, and comics were all manifestations of the therapeutic curriculum.[42] Clinical faculty, often on a volunteer basis according to my respondents, facilitate these courses; sometimes they are student-run. As one school depicts, these extracurricular engagements with the humanities are "enrichment activities" where the "academic program will include: reading and discussion with clinical faculty, special theater events, museum visits, and films." In yet another school's course catalog, listed under humanities they had a summary of one elective called The Healer's Art™, which is a proprietary product. The course description was as follows:

> *The Healer's Art*™: Learning how to preserve and strengthen your own humanity, your sense of the physician's work, and your ability to handle loss and remain open-hearted may make the difference between professional burnout and a rich and fulfilling life. In *Healer's Art*™, we will be talking about meaning and service, sharing loss, finding healing, strengthening our personal commitment and uncovering the spiritual dimensions of the practice of medicine for ourselves. Meetings are held in the evenings at an off-campus site, most likely at a manor which has a great setting that will remind you of Clue. This is an elective class, and you WILL enjoy it if you take it. There are no quizzes and no presentations.

The tone of this course description reads like this elective is designed to be therapeutic. With no homework and an exciting setting, this humanities elective is pitched as something the medical student unequivocally "WILL" enjoy. According to the clinical faculty member, Rachel Naomi Remen, who created *The Healer's Art*™, and her colleagues, it is offered at over 70 medical schools (Rabow et al. 2016). A list of other types of electives are featured in Table 4.1 below.

[42] Very few schools today integrate history into their curriculum, even though history was a subject that was taught in most medical schools in the 1940s and 1950s. Also, unlike art, literature, and music, there are no "history clubs" at medical schools. When history is integrated into multiple course offerings, it is because of the critical approach and lessons on virtues that history can provide, with lessons like: medicine has been inaccurate in the past and medicine has caused a lot of pain and been influenced by structural inequalities (e.g., racism, homophobia, sexism) just as it has reproduced social norms. As Dr. Rogers, the director of the humanities program at a top-ranked medical school, explained, "knowing some history of medicine engenders some humility… one understands the mutability of truth." Moreover, when history is taught in the foundational curriculum, it does not have any sort of cathartic or fun element to it. Students do not feel like it is a break for them because it is rigorous work.

Table 4.1: Course Titles of Humanities Electives

When Doctors Become Patients: Illness Experience and the Wounded Healer
Medical History and Humanities
Short History of Medicine
Surgery Throughout the Ages
Self and Culture
The Healer's Art™
Visual Thinking at the Art Gallery
Creative Writing
HeART Stories: Building Empathy Through the Arts
Medical Cineforum
The Language of Music: Improvisation in Sound
Culinary Medicine
Science Fiction and Medicine
Psychiatry at the Movies
Theater and the Experience of Illness
Humanities and Medicine
Jazz and the Art of Storytelling
Major Religious Traditions
Patient, Physician, and Drama
Dissecting to Think: History of Anatomy
Literature and Medicine
Doctors on Film
Art and Medicine
Graphic Medicine

According to the medical educators and students in my sample, the extent to which these subjects are incorporated into the medical school curriculum is largely dependent upon the wishes and capacities of the faculty, as none of the humanities are required at a national standards level. I classify an inclusion of the humanities into medical education as the therapeutic curriculum when that subject matter or course a) is included as an optional course or activity, and, b) described as fulfilling particular objectives around student wellbeing. When educators enact the therapeutic curriculum as a strategy of incorporation, they either establish an elective course, extracurricular club, or even one-day activity that utilizes the humanities as a means to a stress-relieving end. These offerings—from so-called "affinity groups" to "compassionate conversations"—serve like

patches: sticking a symposium here, creating an interest-based club there, having a panel, or providing the option for a short elective.

Because the therapeutic curriculum is characterized by its voluntary nature and limited format, it forms a bit of a dependence upon who is in charge. In describing their book club group to me, Dr. Brooks said that when he leads the book club for the students, they have "eight meetings a year, two hours, different book each time. You come in, we discuss it. The way I run it is they come in, we read a poem. We do a reading from the book and then we talk about just that one poem first and then we talk about the book." Dr. Brooks, who is a medical educator at a middle-ranked institution, captured a dimension of the therapeutic curriculum perfectly, which is how they meet for a total of 16 hours over the course of a year;[43] a point that another humanities professor, Dr. Mayberry, who has overseen the humanities electives at his middle-ranked institution, also points to in describing the humanities course offerings at his institution:

> Some of the courses have take home reading and some don't. It's really up to the instructors. And the courses really vary a lot in structure. Some of them are very involved and meet twelve times in a semester. Some of them meet four times and that's the whole course; it's like a mini-course. So students can take as many or as few of them as they want; they don't have to take any at all. But we have at least—the last time I saw numbers about this I think 70% of the students were participating.

Dr. Mayberry draws our attention to the way in which these meetings might be quite infrequent but also invokes their popularity.

Educators believe that students truly love these humanities electives. Medical schools even use the therapeutic curriculum in materials advertising their program to prospective students, no matter how little time is actually dedicated to these humanities-based electives. One medical

[43] In contrast in terms of time allotted, Dr. Ribeiro described that for their foundational literature course, they "developed cases that would spend a number of weeks on. Some just two weeks, some up to four weeks so that the students that might be on a—let's say there was a three or four-week module and on the first day, first session there might be a lecture or some kind of presentation."

school advertised its annual, half-day workshop that contains many humanities-based activities. Another manifestation of the therapeutic curriculum is reflected in this workshop description from a middle-ranked school that I found in my examination of curricular data:

> For the past several years, the Medical School has held an annual half-day Integrated Clinical Arts event for first year medical students. Students chose from a wide variety of workshop offerings such as: mindfulness retreat, figure sculpture, medical illustration, horsemanship and medicine, improvisational acting, improvisational music, music and dance, yoga, journalism, writing and medicine, photography, poetry, among others.

Even though this is a half-day activity that happens once a year, the medical school deems it so attractive to students that they include it on their list of course offerings and programming for prospective students to see.

The love for these courses is often juxtaposed with the slog and misery of the rest of the UME curriculum. When I asked respondents—students, medical educators with MDs and EdDs, and humanities and social sciences scholars—whether they had any humanities in their curriculum, more often than not, they answered like Andrew, a fourth-year medical student, did: "We have a magazine that the med school publishes where it's like art in any form whether it's sculpture or photos or painting. And then the magazine puts on a show at the end of the year where they showcase a lot of the stuff. There's also the talent show where people come together and perform different things, either art works or pieces or whatever. It's a fun thing that people do that's *not* medicine." Andrew draws attention to this dimension of the therapeutic curriculum where it is conceptualized as not foundational to medicine, but rather completely external to it.

As respondents drew explicit contrasts between the humanities and the biomedical coursework, they not only described the humanities as *not related to medicine* but also as *not stressful*. Many times, students and educators drew explicit comparisons between the humanities content they were enjoying and the biomedical coursework they were struggling with, as Jackie, a

fourth-year medical student described in her account of what she liked about the book club she participated in: "So it was flexible and it was a nice departure from our everyday clinical activity because I can't tell you the last time that I read a book for pleasure because all the other reading material would be science and medicine related because you always have more to learn."

Fifty-six of my respondents characterized their medical school's engagement with the humanities as aimed at combating stress. For example, Dr. Busler described a literature-in-medicine group at her top-ranked institution that functioned as a space for the physicians and students to get together and receive support. When I asked whether they had any humanities offerings for her students, she said, "we have groups that meet every week. Some groups meet once a month for 45 minutes. It's really a professional development group and can be very helpful to, you know, provide support for the group members and be a way to lessen burnout, I think. We do it really as an offering and as a kind of supportive resource."

The therapeutic curriculum thus is designed and perceived as a break from the regular—or "actual"—structure of medical school. As fourth-year medical student Gyi opined, time spent on humanities activities is "essentially group therapy." Respondents often offered accounts of these arts and music experiences as spaces that allowed medical students and faculty to relax and enjoy one another's company, play with something fun, and contemplate how the art or music made them feel. It was as if the actual humanities discipline's specific content did not matter; art and music were perceived to be interchangeable. Educators and students alike described the talent shows, recital groups, and museum trips as a light-hearted, fun, and social experience, like a "social, a nice stress relief kind of thing" or "cultural enrichment."

In this sense, the humanities, when implemented as the therapeutic curriculum, serve as examples of how the humanities are *used* by the medical profession. The humanities are applied

to achieve certain ends: a fun, stress-relieving break from the real work that they are doing with biomedical disciplines. When I asked medical student Dylan what drew him to take an Art and Medicine elective, he replied, "I felt like I needed a break I was going crazy." The humanities—at least as therapeutic curriculum—are seen as an antidote to the fast-paced, isolating, and intense experience of medical school, as Chris, a second-year medical student summarized: "medical school's pretty stressful and [the humanities] can help us cope." Dr. Donovan echoed this sentiment in describing the first time that he taught literature in medicine. He laughed in recalling how he thought going into the course, "I'm going to transform your lives." When he got the post-class evaluations and was "expecting these very earth-shattering things—the majority of people just said it was really relaxing, it was a really great break from anatomy or something."

These students' experiences of these humanities courses were not coincidences; some educators purposefully taught stress relief or other emotional coping exercises in these humanities offerings. In contrast to the foundational curriculum strategy of incorporation, when medical educators engage in creating the therapeutic curriculum with literature and writing, it often takes the form of a book club.[44] These book clubs tend to use or value literature for its cathartic capacities.[45] Students (and faculty) may meet in a much more informal manner—after school hours, potluck and drinks, at someone's home—and respondents describe this experience as fun, relaxing, engaging, and restorative.

[44] This narrow evaluation of the humanities, as Dr. Donovan, a humanities scholar, explained, is often a source of derision of the therapeutic curriculum: "when historians in medicine get together those having some ties with medical schools often deride medical humanities as sort of an artificially created intellectually at times thin."

[45] While one panelist at a AAMC annual meeting session on the humanities in medical education warned the audience that the way in which the humanities were being incorporated could allow "conversations to devolve into epic complaining sessions", for the most part educators in the audience and on the panel saw the inclusion of the humanities in this therapeutic curricular manner positively.

In one creative writing elective that Lisa, a third-year medical student, took that was led by a clinical faculty member, she explained to me that reflective writing assignments were places for students to wrestle with negative emotions that had been stirred up in their learning. As Lisa noted,

> It was just like reflection pieces about your experience in medical school. I think I started getting very dark… It's crazy so you know that was really difficult for me and was hard psychologically it's very difficult to not come down on yourself if you are somebody who is high achieving now in a group of other high achieving people and unable to conform to your desired expectations. So there's all that frustration, and I very much felt like there were people who were very different minded than myself. That was very isolating and frustrating that I couldn't find people like I felt like these people knew a lot of these people only knew one thing, and I was very much missing fulfilling other aspects of my life or things that I liked you know things that had personally made me want to pursue medicine firstly.

Or John, a student who said that for some of his peers, "I think writing helps them kind of cope—like medicine's pretty stressful, it can help them cope with, you know, so outside of medicine, but it helps them cope with their—everything they see." Medical educators often have students engage reflection pieces without any structure, analysis, or feedback, serving as a space for something akin to a diary entry, which is not the same as reading and discussing literature or learning Narrative Medicine techniques for active interpretation in a foundational curriculum-style setting. Students respond to prompts or experiences they've had in the classroom or on the wards. The value of writing was explained to me as inhering in its capacity for expression and release, areas that are either neglected or in need of self-care. As Dr. Kling, a medical educator with a MD at a middle-ranked institution who oversaw the curricular structure for the UME, described, the purpose of letting students write was to "direct students to behaviors that we hoped would be more fulfilling, meaningful and less stressful."

These examples of the therapeutic curriculum are both structurally insignificant in their voluntary nature but also are statements about how the humanities are valued. As Andrew and Jackie both indicated, it is precisely the fact that these humanities excursions are conceptualized

as external to—and not a part of medicine—that make them so enjoyable. At the same time, this shows how the therapeutic curriculum encourages students to view the humanities as fundamentally not a part of the "real" biomedical curriculum. The biomedical curriculum was depicted as a place devoid of humanity and experiences within it as in need of processing; the humanities incorporated as the therapeutic curriculum seemed like great solutions to these problems.

EXPLANATION

What drives educators to incorporate the humanities in this way? To explain the educators' use of the therapeutic curriculum, I will first describe how many educators articulated a desire to be a part of the curricular trends, emulating the curricular practices of including the humanities into the UME curriculum at elite institutions. Next, I will show that this desire to be on-trend did not have the resources to match; these educators lacked the intellectual infrastructure to teach the humanities as educators who enacted the foundational curriculum. And, I will conclude this explanation by pointing to the burnout crisis as a structure of opportunity and constraint: an opening that allows educators to squeeze in the humanities—a squeeze that results in the narrow, instrumentalized, cathartic version of the humanities that is the therapeutic curriculum.

The Medical Humanities Trend

In the medical education community, the humanities are trendy. At the AAMC annual meetings, three years in a row the keynote speaker was a famous novelist. The majority of medical educators in my sample wanted to emulate the curriculum that was percolating in their professional

networks, such as the work done by influential medical educators who have incorporated the humanities in a foundational curriculum strategy of incorporation.

When educators referenced cutting-edge curricular ideals—such as the humanities of the foundational curriculum—they often asked me if I was familiar with the "medical humanities."[46] The medical humanities are at once elusive and multi-faceted, becoming increasingly prioritized in initiatives of professional medical organizations (e.g., AAMC Task Force on the Humanities), degree-granting programs (e.g., certificates and Master's degrees) and subjects of flagship journals (e.g., *Medical Humanities*; *Journal of Medical Humanities*; *Lifelines*; *Cuentos*; and *The Script*). While its objectives and normative commitments may vary, the medical humanities are centrally concerned with the art of medicine, or the "how" of doctoring (Gordon 1988).

While the medical humanities' concerns are old, as I described in the Introduction, its consolidation into a paraprofessionalizing body of people, practices, journals, postgraduate granting degree programs, and centers is relatively recent. Some scholars, such as Dr. Robinson, invoked the "renaissance" occurring in the field:

> Now there's you know because everybody walks around with their phone in their pocket. You know with the computer in their pocket basically the deal is you have to teach people how to think, and honestly I actually think this may be the renaissance for the humanities in that you can look at all this other stuff up, but you have to know how to think. You also have to understand humans. I think that there's been a lot more respect for the importance of that. I think in some ways maybe the door is opening. Things that were not that—were really fringy before, I think, there's more and more evidence of how important they are.

[46] Medical historian Brian Dolan (2010:394) explains, "When pressed to define 'medical humanities,' it appears more inclusive than exclusive, thereby resisting conventional disciplinary identity. History of medicine, bioethics, narrative medicine, medicine in literature, creative writing, and various social sciences (for example, medical anthropology and sociology) are aspects of medical humanities programmes. However, it also embraces the creative arts, so that music, painting, reader's theatre, and dance are considered expressive of medical humanities. Anything that touches on the 'human condition,' 'the humanizing process,' or 'the humanist philosophy' becomes relevant."

One student from a middle-ranked institution, Nina, told me why she thought they offered a humanities elective:

> I think that it's very important in medical school dialogue, like the dialogue around changing curriculum, to say that you are having humanities focus now. Even research schools are saying we want our doctors to be humans first. Some schools still won't say it, but most schools say that because they feel this kind of pressure to make sure that the students they are training become not only good doctors but good people, too.

Both Dr. Robinson and Nina point to how the humanities are popular in the broader field of medical education right now. Educators see that the humanities can be good for students, and they want to capitalize on this curricular trend.

Dr. MacKenzie, a director of humanities programming at a middle-ranked medical school, told me about an art elective they offered that was incredibly popular. He said,

> And then we have one of our biggest courses; I should just mention one of the next courses is called the Pulse of Art which is a history of art that is co-taught. I mean everything is in the teacher and it's co-taught by [named couple]; he was the Chair of Medicine here and she is a curator and museum person. They are very dynamic and very adorable and like extremely successful people. So people love that course.

Dr. MacKenzie, in describing the popularity of a course also notes how this physician-curator power couple were part of the appeal, pointing to the way in which these courses were trendy. While some people referenced the "evidence" or "dialogue" in the broader medical education field in vague terms, others pointed to precise parts of this budding professional network that made the humanities seem like an important dimension of UME curriculum.

When I would ask the respondents about the humanities in their UME curriculum, educators often specifically brought up Rita Charon, who is a primary care physician holding a PhD in literature, as a looming figure in the medical education community. Her efforts to integrate literature into the medical curriculum have not been in vain at her institution, and medical educators across the U.S. described many of their own curricular practices as adopting parts of Dr.

Charon's curricular programming and integrating it into their UME curriculum.[47] The prestige and visibility of Dr. Charon and other high-profile humanities scholars at prestigious schools of medicine seemed to be something educators at less prestigious and visible schools aspired to. These attempts at emulation yield the therapeutic curriculum when educators do not have the appropriate training or exist in an institution without the necessary intellectual infrastructure to implement the foundational curriculum

Weak Intellectual Infrastructure

When I asked educators about why they integrated the humanities with the incorporation strategy encapsulated in the therapeutic curriculum, they often said that they came up against financial and personnel limitations when trying to implement what they perceive to be the desired curricular practices of the foundational curriculum. Take, for example, Dr. Donovan, who wanted to have a more robust humanities curriculum at his middle-ranked institution, explaining that "a lot of it has to do with budget—medical school budgets—and resources and the attitudes of the leaders." In other words, many educators depicted the challenges of creating or having intellectual infrastructure needed to support the foundational curriculum. To overhaul a curriculum in such a way that the humanities are incorporated as an immersive seminar or longitudinally-embedded thread requires a lot of time, resources, and faculty support.

The lack of availability of faculty trained in the humanities was one reason why medical schools that wished to emulate the foundational curriculum ended up with the therapeutic curriculum. For example, when I asked Dr. Krebs, a medical educator at a middle-ranked medical

[47] It is important to note that Dr. Charon's curriculum would count as a foundational curriculum, and that she would most likely object to the fragmented implementation of her curricular program at other medical schools. In fact, she has created a Masters and Certificate program to ensure the accurate transmission of her curricular practices.

school, whether they offered anything on the humanities in their curriculum, he told me that they did have some electives that were facilitated by a cadre of interested volunteers. He went on to say, "It's variable depending on the presentation, depending on the course. We do have a history of medicine group here on campus and we also have a collection of emeritus faculty who have an interest to teach history." What Dr. Krebs points to is that the faculty they had available to facilitate this material was delimited to two groups who, lacking the disciplinary expertise, lead interest groups rather than seminars. Educators like Dr. Krebs use these folks because they are volunteering their time and thus these electives are able to operate at no cost, especially if they are held off campus in a faculty member's home. One respondent described the reliance that their medical school had on the generosity of the clinical faculty, saying that their electives might go away because the clinical faculty members who were running their art and medicine meet-up group were no longer wanting to foot the pizza bill.

Other times, the enthusiasm for the foundational curriculum was often met by a lack of understanding about what it would take to establish this in the curriculum. At one of the AAMC annual meetings I attended, I observed a panel on the inclusion of art—particularly on partnering with art historians and curators on requiring students to hone their observational and diagnostic skills. During the Q&A, one audience member took to the microphone and stressed that the beauty of this type of elective was that the students and faculty did not need to have any training in this area, that anyone could participate, because "you don't need to know anything about art or art history to speak up." Then they went on to say that they thought that these 2-hour sessions required "no preparation." The leaders of this session shook their heads, saying that this type of course required a lot of preparation. Otherwise, the leaders of the session argued, the schools might

implement an elective, but the students taking that elective will have no idea what the educators are trying to achieve in that course.

One student I interviewed, Andrew, depicted a scenario that the leaders of this AAMC session warned against. As Andrew explained when I asked him what the purpose of his Art in Medicine elective was, he said,

> It is different every time. I tried to pin it down; it was like what is this series? And it didn't make sense because it was kind of like whatever. If you could make art and medicine apply to a single thing, then that could show up on the Art in Medicine. Sometimes it was people who wrote about medicine. Sometimes it was people who were experts on this artist who did a lot of pieces that had medical components in them. Or maybe it was like this person was talking about what you could learn about medical conditions in the old, old days when painting was the only thing, where you would see these princes and kings with goiters or weird facial deformities, and people were convinced that Abraham Lincoln had this endocrine disorder.

It is important to note here how there were clinical faculty cycling through with no explicit expertise and no unifying vision for the course. Operating, in this case, on a volunteer basis, there was no overarching curricular development and faculty expertise, pointing to a weak, or limited, intellectual infrastructure.

Educators also frequently complained about how difficult it was to convince the administration to find the time to require the humanities. As Dr. Stephens, a Dean of UME at a middle-ranked institution explained to me, "the biggest challenge we have in terms of the medical curriculum is just the limitations of time. And so we try to make sure we have all the absolute core material that we need, and then we try to have it enriching material." Time, however, is there, it just would need to be time taken from one biomedical discipline and given to a humanities discipline. Therefore, the therapeutic curriculum is enacted because even though the desire is there, biomedical disciplines are seen as more "core" than humanistic disciplines. This is evident in the

way that Dr. Harrison, a humanities scholar in a middle-ranked medical school, described how biomedical curricula remain paramount:

> In fact, most clinicians that you speak to who are educators, who are interested, or even receptive, to hear conversations including more humanities or more non-medical components to the education, are often very sympathetic with that cause. But, their response is almost always, I need more air time. You know what I mean? Which is to say the worry is that I give you an hour to focus on narrative medicine, that's an hour I have to take from cardiology, you know what I mean?

Most medical educators deem the humanities to be external to the rest of the curriculum; in this sense, the humanities are not worth replacing the real learning that is taking place in the biomedical subjects; rather, the humanities can be *support for* the real learning.

The Burnout Crisis

When educators invoked burnout as one of the reasons for including the humanities as therapeutic curriculum, I found it puzzling at first, because many of them wished to do more with the humanities. Similar to how the health and health care inequities problem operates with the symbolic curriculum (see Chapter 5), with the therapeutic curriculum, the burnout crisis serves as an opportunity for adding humanities offerings to the curriculum, but it confines the way in which the humanities are pitched. When I was talking to Dr. Callaghan about how they were able to incorporate the humanities into the curriculum, they said that they were able to justify these electives by tapping into the clinical administrators' "interests," which included addressing student and physician burnout. As she explained,

> I think you have to figure out where your interest and clinical administrators' interest overlap and what you think this work can accomplish. Like, I think this work can accomplish reduction in burnout. I think this work can accomplish potentially more satisfied submissions and teams, which could translate into better care for patients and more satisfied patients. The more proximate effects—increased satisfaction, decreased burnout, increased team cohesion—for the administrators, they care about that. What does that mean? That might mean less

> turnover. Each time you have to interview and hire a new nurse, a new physician, we're talking tens and thousands of dollars of cost. Less sick-days. This is a way to infuse our clinical space with purpose again and not just looking at metrics, or no-show rates, or whatever, but we can talk about why we're here and have a space for that. I think that's very inspiring for people and not in a false way at all. I think that's why we're here. We want to connect with patients that way, we want that for ourselves. We want our work to be meaningful and we want an opportunity to actually reflect on that.

Given the way in which the humanities scholars in medical education described the purpose of the humanities in the foundational curriculum—as assisting in active interpretation, sharpening visual and auditory perception, heightening critical awareness—I was struck by the way in which many medical educators and also students articulated the perceived goals of including the humanities in their UME curriculum.

When I asked Riva to tell me more about the goals behind the literature in medicine group she participated in at her school, she said, "the main goal was to, well, I think number one, the goal was to allow students to know that it's okay to experience a little burn out. It's normal and that they should seek help. That was one; number two was don't commit suicide, and if you know somebody that might be in danger of committing suicide, tell us, reach out, help this person. Because it happened when I was in medical school when I was a first year, there was a second year that committed suicide over Thanksgiving."

While most of the educators were loath to definitively say that the humanities content helped alleviate burnout or disillusionment, the majority of them invoked burnout as the central reason why the humanities were included in their UME curriculum. Of the 90 medical educators and students I interviewed at medical schools across the U.S., 56 of them invoked the "problem of burnout" as a pressing issue and burnout always came up in reference to the humanities, because I did not have a single question about burnout, emotions, stress, or wellness in my interview guide

(see Appendix A). Take, for example, Dr. Walcker, a medical educator from a top-ranked university, who described the crisis in the following way:

> One of the reasons students come into medicine is because these are highly idealistic individuals who are going to work hard. They want to help others, and they want to see the world change. We traditionally have not given them the tools to teach them how to change the world. These kids do not want to feel disempowered, they do not want to feel cynical, they do not want to feel disenchanted and discouraged. But something we've been doing in medical education for decades makes them feel that way most of the time.

At the last three annual meetings of the Association of American Medical Colleges (AAMC), "Physician and Student Burnout" and attendant material on student wellness constituted a thematic thread for panels and presentations by and for medical educators. And, as Dr. George, a medical educator at a middle-ranked institution, describes, this crisis feels very acute:

> I do think that healthcare in America is at a time of crisis and more and more people are writing about burnout, writing about dissatisfaction. And it's not just a hot topic, its real. I feel it. I've felt it for years. It's growing. We need to infuse the medical space with meaning for the patient and for the healthcare attendants. So I think this is—it feels like we're doing meaningful work.

The concern for the fate of the medical professional workforce extends beyond simply how students and practicing clinicians are feeling, as patients are also a part of the equation. As Dr. Johnson explained, "burned out clinicians are more likely to be rude to their patients. That's not good for anybody and we don't want to lose clinicians to burnout or depression or alcohol abuse or whatever; and we also don't want them to mistreat patients in the middle of that."

It is against this backdrop of the crisis of physician burnout that many medical educators are compelled to include some humanities into their curriculum. Many medical educators explained how the humanities are considered to be a corrective to the burnout feelings that students may experience, because the humanities allow students—and physicians, for that matter—to both psychologically process and create meaning with their work. Many educators expressed during

interviews and at the national meetings that students who took humanities offerings reported feeling an enhanced sense of compassion, sensitivity, and ability to connect with patients although my interviews with students found nothing of the sort, as I detail in the next section. Nevertheless, as Dr. Feldman articulated, when I asked her what the goal of her various humanities electives were, she said:

> Burnout is a major, major, major issue in medicine right now, and we try to give students tools that will prevent burnout. If you are a person who has been an over achiever your whole life and you chose at a young age to go into medicine because you thought it was going to be a prestigious, well compensated career and then you realized part of the way through that it is not as well compensated as it once was and people don't treat you with all kinds of respect all the time and then you realize you will do this for the rest of your life… you might be miserable. And then there's all sorts of garbage that goes into working in a hospital. Everyone is overworked and all this business. If you develop a meaningful relationship with your patients, afterwards you can think well I really did help this person. And part of listening to a patient and understanding where they're coming from and excusing their bad behavior enables you to go home at night; and though you're tired, you feel like you've done some good and that seems to buffer you against some of the effects of burnout.

By developing a "meaningful relationship" or "listening to a patient and understanding where they're coming from," Dr. Feldman is referring to the effect the humanities can have on a student.

The humanities are conceptualized or valued as a set of protective, emotionally-intelligent, and meaning-making tools that give (future) physicians the sensibilities needed to survive in a health care setting brimming with causes of burnout (e.g., misbehaving patients, stressful work conditions, and perceived low pay). The notion of the humanities as tools is also evoked by Dr. Schumann, a medical educator at a middle-ranked institution, in describing the humanities' contribution to medicine and illness:

> These things are not just about science or technology; but rather about how we are human and how we might care for each other and care for ourselves. Because humanities offers ways to reflect and to think—it can actually help alleviate the suffering of our medical students and physicians. You know, physicians have the highest rate of suicide because they've been taught everything is about science and

> medicine and so their humanity is in some ways just cut out of that. So the humanities gives them tools to be able to deal with the suffering that they see, to deal with the monstrous things that they are asked to do to human bodies.

Dr. Schumann's insights show how not only are the humanities seen as tools to address the burnout crisis, but they also reveal why they are seen this way—because educators deem the humanities as something distinctly different from the practice of medicine.

In fact, many medical educators I spoke with elaborated how, exactly, they believed the humanities to be different from science and why that was therapeutically beneficial to students. Students who received the therapeutic curriculum, too, that I spoke with seemed to hold on tight to this valuation of the humanities as therapeutic, cathartic, or simply "a break." For example, as Dr. Jaffe, a medical educator at a middle-ranked school of medicine, explained about the purpose of an arts elective that she taught,

> I think it's a break for them, honestly, from thinking in such a rote way about science. Not that science isn't creative and exciting, but the science that you have to absorb as a first and second year medical student is not; I mean there are creative aspects of it… but there is something to be said for so much passive learning; where your voice as an individual doesn't really matter. Where you're just sort of there to absorb it. It's regressive. It feels to a lot of people like being back in high school; like some big public school where you're just taking notes. And I think college is a very liberating and growing experience, and you leave feeling like your ideas matter. And then you get to medical school and it's like your ideas don't matter anymore. Your job is to sort of fall into line. So that is a big part of it. And I think just the opportunity to sort of run with that and to do creative projects that are validated by the institution; that we say yes, we believe in what you're doing, we think it's important, we support you. I think that sort of emotional piece is really big for students. I think it's fun, and I think it gives them permission to not be cookie cutter people.

Even when medical educators conceptualized the value of the humanities for medicine as more robust than merely therapy, they still invoked the notion of burnout and the emotional livelihoods of students. The therapeutic curriculum is thus predicated on using the humanities to allow students to improve their wellbeing so that patient care will also be improved.

I asked Dr. Brooks, a medical educator who practices internal medicine and leads the literature in medicine group, about the value of reading literature and writing for physicians in general and medical students in particular. He explained: "I think it does decrease burnout. I think that coming out of that rigorous scientific approach and being in a place where you're not graded, where you're not asked to come up with the right answer, where you're just asking them to really think about different scenarios up close and talk through it with other people and bounce off their ideas, consider their points of view, I think that's the value." This quote is illustrative of yet another way in which the particular strengths of the humanities are put to work to combat the burnout crisis. Taken together with the desire to emulate other institutions the humanities and the weak intellectual infrastructure, the burnout crisis is an important context to understand how the humanities become integrated as the therapeutic curriculum.

IMPACT

There are two central impacts of the therapeutic curriculum. The first is on the way in which the humanities are devalued. The second is on the way in which the burnout crisis becomes individualized, placing students in positions where they are responsible for their own mental health. In both cases, it is important to point out that these therapeutic curricular practices do very little for students, both in shaping their immediate relief and in their anticipated clinical futures.

Impact on the Devaluing of the Humanities

Because the therapeutic curriculum is created in response to the burnout crisis, requiring students to put in a lot of work when engaging with the humanities is antithetical to its objectives. If educators justify the therapeutic curriculum by convincing students and administration that it

helps address burnout, then a consequence is that educators cannot require students to actually put in a lot of work learning the particulars of the humanities. In my interviews with educators who wanted to teach a more foundational curriculum but ended up needing to enact a therapeutic curricular practice, I was struck by how much the educators felt like they needed to coddle students when it came to this dimension of their schooling. Dr. Sabga explained that medical students are "often anxious and say 'there's only so much we can do, there's only so much I can learn.'" Dr. Donovan said that one cannot expect medical students to read, as they "are usually trained in the culture where they don't do extensive reading." Dr. Sampson backed up Dr. Donovan by saying: "You can't organize your class room thinking 'well great so everyone will have read this so that will be our platform, and we'll launch from there.' Nope you can't do that, what you have to do is find like the key three paragraphs and then okay let's read these together. Because it's not that they won't read, but they'll only read things that they think are really vital and a poem that is not going be it yet."

Many humanities scholars spoke of how they felt a little nervous about some of the claims made about the way in which the humanities integrated as the therapeutic curriculum would change the way these future doctors' practices. It is important to point out that these humanities scholars worked in medical schools and were dependent upon that position as their central source of income; as one humanities scholar and AAMC panelist remarked: "you've got to make yourself useful when you're the humanities faculty—its how you survive." Therefore, they were bound to the demands placed on them by the leadership at their institution. At the close of my interview, I asked respondents if they had any reservations about the curriculum. One humanities scholar who taught an elective that I spoke to, Dr. Donovan, explained:

> I think it's a means to ends problem is that no one likes to feel that their discipline is just kind of, you know, there for another purpose. I think that the whole issue of

> empathy and compassion, I think, and rightfully so, I think there's a real concern that these can be perceived as either patronizing or condescending at best and manipulative at worst. You know I win your trust, and you really like me then I can get you to agree to an operation that maybe you don't need. But I say, "oh I really understand your pain."

Some students pick up on this narrow, instrumentalized vision of the humanities, as Gyi, a student who had participated in a literature in medicine elective that he said was a "glorified communications seminar." He described the literature element being "a little bit neutered." When I asked him to elaborate, he said: "Because now it is just gone off like a check box on your standardized patient form. Did you shake the patient's hand? Did you drape them appropriately? Did you knock on the door?" When I asked Gyi what he meant by neutered, he explained further: "like you will not be empathetic but we will make it seem like you're the most empathetic person in the room… it's about being *perceived* as empathetic."

While Gyi was skeptical of how the humanities were used, other educators were skeptical of whether the humanities could be plausibly instrumentalized in the first place, as Dr. Sabga, explained, in recounting what he is up against in implementing the humanities into his school's curriculum:

> The only way we're really going to get these into the curriculum is if we can prove that "hey, students that have this training really do better." And we don't have really longitudinal studies at this point. We don't know. Even if we're testing them and measuring their immediate feedbacks, we really don't know are these doctors better when they get out in the field, and that's again an issue for a lot of things we do at medical education. We don't have what makes them a better doctor. We don't really go that far to look at them later on.

Students explained time and again how the medical educators signal what is important to be a doctor, and an active and thoughtful engagement with the humanities was not a part of it when the humanities were integrated as therapeutic curriculum. In fact, it is precisely in relation to biomedical knowledge and the "rest" of medical school that the humanities are constructed as this

nice, fun break. For example, as Lindsay, a third-year medical student, described, the value of biomedical knowledge is signaled by the content and magnitude of knowledge they are expected to know: "like here are 5,000 flashcards on bio facts, please remember all of them by Friday." Or as Jeremy, a second-year medical student, explained, the value of biomedical knowledge is reinforced by who they are taught are valuable members of their profession: "your goal is to become a bigwig in a biomedical research lab." Even a clinical faculty member, Dr. Stephens, said that "the relevance and applicability is sometimes viewed rather concretely rather than something that may be important for having a sense of a broader sense of humanity seem less applicable than something that is more clinical and perhaps more immediately useful."

Under this context where the biomedical sciences are required and automatically valued, and the humanities are conceptualized as therapeutic, many students—and educators for that matter—reported that sometimes the elective humanities courses end up "preaching to the choir." As first-year medical student Caroline explained, "the people that need it the most are not the people who are benefitting from the humanities content because they are not taking it seriously or they want to do research instead… the gunners aren't doing some of the humanities stuff." The invocation of "gunners" by Caroline is a reference to medical students who are perceived to be incessantly competitive, always gunning to attain the best in class, best residency program, best fellowship, and then best clinical faculty positions. These students were portrayed as more likely than others to conceptualize the humanities content as a "waste of time," which is consistent with larger narratives in the biomedical field and discourse about higher education, in general.[48]

[48] Scholars from a variety of disciplines have written extensively about the plight of the humanities in a market-driven, biomedically-dominant era, where amid humanities devaluation, precision biomedicine, and technological determinism, scholars, physicians, and educators within the biomedical field have emphasized the primacy of biomedical knowledge and skills above all other fields since the 1970s (Berman 2012; Clark 1983; Donoghue 2008; Menand 2010).

Where the humanities are concerned, often students end up not valuing the humanities at all. As Darren, a third-year medical student who had taken an art elective, explained, the weight placed on the humanities in the overall curricular structure is pertinent for patterning how seriously the majority of students approach the subject, as "relevance to a student is whether questions make it on the test or not… the humanities stuff that we were learning about almost sounds like a waste of time because we want to pass the tests. I have to stress to you just how bullshit these classes are." Therefore, while the impetus for including the humanities as the therapeutic curriculum is the precisely students' livelihoods, its placement relative to the rest of the curriculum renders it like something that "borders upon busy work" as one medical student who decided against joining a book club, Rachael, said. As another medical student, Anna, who enrolled in a literature in medicine elective, noted: "it was just how it was being conducted and in the context of everything else going on there is something about it—it feels like a waste of time. There was a lot of complaining about it."

Impact on the Individualization of the Burnout Crisis

The central consequence of the therapeutic curriculum for the future of doctoring and current medical students is that educators land on an individual solution to a structural problem. At a session on the humanities in medical education at the first AAMC annual meeting I attended in 2015, before things got started, I asked an educator at my table whether she organized any humanities curriculum at her home institution. Her reply struck me as odd, when she said, "oh, medical schools don't organize they respond to crises… we do crisis management." But I soon learned from my respondents that they echoed this sentiment, as Dr. Bettles, a sociologist at a medical school, opined about the field of medical education as well as her school, "in medicine I

think one of the big things that is fascinating is that there is a lot of like dike-plugging with the finger as opposed to like zooming out and saying like, 'what's going on.' That's my biggest frustration with my field and my department." The devolution of responsibility to the individual happens through both the structure of the therapeutic curriculum and the lessons the therapeutic curriculum imparts to the student.

First, the structure of the therapeutic curriculum is such that it is up to the individual student to participate in the optional humanities electives or groups. As Caroline, a medical student who has wanted to attend humanities offerings but has not yet done so, expressed to me in the excerpt below, at most medical schools, precisely because this curriculum is structured in this way, the responsibility to engage with the humanities—and thus address their own burnout—falls to the students (and, ironically, also could be an additional source of burnout):

> Sometimes I won't make it a priority, and then I'll hear my friend talking about it yeah, of course, that's what I want to do like why wouldn't I go to that. Because you just kind of get caught up in like the wrappings of like just getting another test done you know. But I think those people, and that's what I admire most about them, is that they make it a priority to have different experiences, and to put those experiences first before studying. That can be really hard to do that and also get good grades, you know? But I think it's an individual choice like it all the burden is on you as a student to decide to do that.

Caroline points to the way in which the humanities—even when integrated as the therapeutic curriculum—are subverted by their way in which the onus is placed on the student to engage with the material. As Rachael mentioned, this did nothing to address the fact that medical school is "such a loaded experience and half of it is very isolative, where you just literally teach yourself everything."

Second, the devolution of responsibility from the school or profession to the individual stems from some medical educators' belief of the humanities' practical value. The student is the most commonly invoked beneficiary of the therapeutic properties of the humanities integrated in

this way; however, some medical educators and students went as far as to say that the future patient would also benefit. In this view, the humanities leads to less burnout, which leads to patient satisfaction, which leads to higher reimbursement.[49]

For example, Dr. Bernansky, a medical educator at a middle-ranked medical school who practices internal medicine and leads elective art-oriented coursework, conveys an explicit connection between instrumental value and the humanities:

> We're trying to develop an evidenced-based way for the way that humanism, caring and compassion actually help us advance and improve patient outcomes, lower costs, reduce burnout, that kind of thing. We're also just trying to deepen our understanding of any aspect of humanism. I think that a lot of these students come to medicine because they want to connect, they want to heal, and they see—they are afraid of losing themselves. You know, they're exhausted, and there are high burnout rates, and rates of depression among medical learners, and this is a way to keep them both connected to their core values and connected to other people.

In this practical understanding of the humanities, the individual's mental health shapes their performance. Physician burnout is reduced to an individualistic causal chain: the singular physician is burnt out, then the physician makes a mistake or is rude to a patient, then the patient is dissatisfied. What is more, while the responsibility is depicted as lying with the individual, the consequences are conceived to be much bigger: the hospital loses money, patients lose trust in the medical profession, there is a physician workforce shortfall, and so on. A structural problem becomes individualized and then re-structuralized.

Thus, when the humanities are implemented as therapeutic curriculum, the structure of integration (e.g., optional, elective) and the valuation of the humanities (e.g., therapeutic, instrumental) create the conditions in which the responsibility for alleviating burnout falls squarely with the individual student or physician. The response to the burnout crisis does not have to be so individualistic. Medical educators could attempt to revise the structure of healthcare delivery to

[49] None of the humanities scholars that I interviewed made this argument. Only MD and EdDs.

create less stressful working conditions. As Jeremy, a third-year medical student who had taken a few of the humanities electives at his institution explained, he doesn't think that humanities courses will create change. Instead, he thinks that "if we had a socialized medicine system, and if medical education, would hence, be socialized" then there would be greater opportunities for addressing the roots of physician burnout.

CONCLUSION

In Chapter Three, I detailed a rarer form of integrating the humanities (and social sciences) into medical education—when educators deem the humanities as foundational to the practice of medicine. The scholars both in my sample and in the broader literature tend to believe that the integrity and multifaceted nature of the humanities are preserved in these instances of integration.[50] In this chapter, I described a much more common form of integration, a form of integration that is shaped by the local school's intellectual infrastructure as well as the nature of the burnout crisis that the medical profession is facing.[51] When the humanities are integrated as a part of the therapeutic curriculum, the complexity of the humanities are more likely to be reduced to a particular set of therapeutic and instrumentalized values.

I do not wish to demean the therapeutic work that is occurring for the medical students. Many students seem to need to have a space where they are able to process what is going on in the

[50] While scholars may argue over specifics, they would agree that the humanities are more robust than simply serving particular ends; the humanities invariably entail critique, originality, description, appreciation, imagination, provocation, and speculation (Small 2016). Within literature alone, stories contain meta-representation, reconfiguration, perspective-taking, and recursive and expansive thought (Rylance 2010); therefore, the current implementation of humanities—when integrated as therapeutic curriculum—is "not a comprehensive account" of how the humanities functions both as a set of disciplines and in human lives (2010:6).

[51] This finding that the humanities are not seen as core curriculum is consistent with a scoping review of how humanism has been conceptualized in the Academic Medicine literature over the last 30 years, where even though the humanities and humanism are often conflated, rarely do educators conceptualize the humanities as fundamental to the core learning objectives of medical students (Martiamiakis et al. 2015).

UME curriculum. At one presentation at the AAMC conference on the humanities and arts in medical education, two presenters described how they led a comics elective where students were told to "tell a story that is meaningful to you." The educators—and audience, for that matter—where struck by how prevalent feelings of isolation, loneliness, and shame were in the comics that the medical students drew, and how often zombie and dehumanizing imagery were invoked. The respondents in my sample, too, time and again pointed to the stressful and dehumanizing nature of medical school. In this respect, the humanities as therapeutic curriculum would seem like a welcome relief for students; and, as the description of the therapeutic curriculum shows, many students did seem to view the humanities in this cathartic capacity. Other students, however, pointed to how the burden to take care of own's own wellness, captured in the optional status of the therapeutic curriculum, was anything but therapeutic.

CHAPTER 5: SYMBOLIC CURRICULUM

In this chapter, I describe the most common mode by which educators incorporate the social sciences and humanities into medical education, a finding based upon my analysis of interview and curricular data. I call this strategy of incorporation the *symbolic curriculum* because it is the bare minimum of incorporating the social sciences and students in my sample do not seem to value this curricular content for their future clinical practice. After inductively identifying the symbolic curricular practice in my interview data, I coded the course descriptions and curricular maps at all MD-granting institutions and observed that 127 of 137 schools enact the symbolic curriculum. There are two settings where the symbolic curriculum occurs, but they are both centered on the same premise: that these minimal inclusions of social science do not challenge the epistemological orientation of medical professionals. The two settings consist of: one, delimited lecture content on positivistic facts, and two, similarly limited content in the Practice of Medicine (POM) course sequence. As I will make clear in this chapter, these two settings where educators employ the symbolic curriculum are safe bets for medical educators because they fulfil the requirements of the LCME Standards in a way that is consistent with what most clinical faculty know and value: positivistic facts and clinical experience.

With the first setting, imagine students sitting in a lecture hall and looking at a PowerPoint slide with health disparities statistics on it. The type of knowledge contained in the symbolic curriculum is often knowledge of particular morbidity and mortality rates that would be helpful for particular clinical cases, but only in the context of the case. The second setting is the POM course, which is a longitudinal course where students learn the clinical skills necessary to practice medicine. In these courses, educators utilize a mix of lecture, small groups, standardized patient exercises, and, at times, panels of members from the community discussing their health and health

care concerns. In the settings where the symbolic curriculum is taught, students are given no further explanation of where these health and healthcare disparities come from and what to do about them. In contrast to the foundational curriculum, where social scientific concepts, theories, and findings are taught by faculty with expertise in particular disciplines like sociology or anthropology, with the symbolic curriculum, any clinical faculty member might teach it, as it is taught in a way that requires no larger or comprehensive understanding of the social sciences.

In this chapter, I begin by detailing the symbolic curriculum, which is the bare minimum of content required to fulfill the LCME Standards. The symbolic curriculum constitutes the strategy of incorporation of the social sciences that is most limited and meaningless. Then, I show how the symbolic curriculum is facilitated by the structures of opportunity and constraint contained in the *problem* of health and health care disparities and the *appeal* of clinical relevance. I explain how the problem and the appeal serve as both opportunities and constraints, limiting the scope of when, where, and how these subjects are included into the four years of medical school training. Next, I show how the lack of intellectual infrastructure further contributes to this limited scope. I conclude by describing the impacts this symbolic curriculum has on student learning and the representation of the social sciences in medical education.

DESCRIPTION

While there are no standards in place demanding faculty be hired or trained in specific social science disciplines, the required curricular content from the LCME Standards contains material deriving from these fields. There are nine areas within the curricular content section, effective July 1, 2015, four of which I detail below (see Appendix B for full list of LCME Standard 7):

7.1 Biomedical, Behavioral, Social Sciences

The faculty of a medical school ensure that the medical curriculum includes content from the biomedical, behavioral, and socioeconomic sciences to support medical students' mastery of contemporary scientific knowledge and concepts and the methods fundamental to applying them to the health of individuals and populations.

7.2 Organ Systems / Life Cycle / Primary Care / Prevention / Wellness / Symptoms / Signs / Differential Diagnosis, Treatment Planning, Impact of Behavioral / Social Factors

The faculty of a medical school ensure that the medical curriculum includes content and clinical experiences related to each organ system; each phase of the human life cycle; continuity of care; and preventative, acute, chronic, rehabilitative, end-of-life, and primary care in order to prepare students to:

- Recognize wellness, determinants of health, and opportunities for health promotion and disease prevention.
- Recognize and interpret symptoms and signs of disease.
- Develop differential diagnoses and treatment plans.
- Recognize the potential health-related impact on patients of behavioral and socioeconomic factors.
- Assist patients in addressing health-related issues involving all organ systems.

7.5 Societal Problems

The faculty of a medical school ensure that the medical curriculum includes instruction in the diagnosis, prevention, appropriate reporting, and treatment of the medical consequences of common societal problems.

7.6 Cultural Competence / Health Care Disparities / Personal Bias

The faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process. The medical curriculum includes instruction regarding:

- The manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases and treatments.
- The basic principles of culturally competent health care.
- The recognition and development of solutions for health care disparities.
- The importance of meeting the health care needs of medically underserved populations.
- The development of core professional attributes (e.g., altruism, accountability) needed to provide effective care in a multidimensionally diverse society.

These LCME Standards direct all medical educators who wish to be accredited about what they need to do to maintain their status. Every eight years a school must undergo the accreditation process whereby the school submits an Institutional Self-Study Report and then is visited by the LCME Survey Visit subcommittee to review their assessment of the Report (see Appendix B for Institutional-Self Study Report template for each Standard subcomponent). Based upon my analysis of interview, observational, and curricular data, there are three aspects to the LCME Standards that are important to mention.

First, the LCME Standards do seem to hold sway over the medical education community. Second, they do seem open to interpretation. And, third, they do not seem like they have a rigorous or specific evaluation system attached to it. To elaborate these points, I will draw upon an interview I conducted with Dr. Kling, who is a course director at a middle-ranked institution. When I asked Dr. Kling whether they taught any social sciences or humanities at his institution, he pulled up some of the LCME Standards and began reading them off to me. After he quoted them, he would tell me what they meant at his institution. For example, he said,

> So I'll just read to you some of the LCME requirements that I pulled out, just so we're on the same page. Standard 7.1 is called Biomedical Behavioral Social Sciences, and it says, "The faculty of the medical school ensure that the medical curriculum includes content from the biomedical, behavioral, socio-economic sciences to support medical students' mastery of contemporary scientific knowledge and concepts, and the methods fundamental to applying them to the health of individuals and populations." When they send out self-study documents, curricula come under these categories: biomedical informatics, complementary alternative health care, evidence based medicine, global health issues, healthcare financing, human development/life cycle, human sexuality, law in medicine, medication management/compliance, medical socio-economics, nutrition, pain management, palliative care, patient safety, and population based medicine. And they ask: "is it taught as an independent course or an integrated course, and in which years is it taught?"
>
> Then you have Standard 7.5, Societal Problems: "The faculty of the medical school ensure that the medical curriculum includes instruction in the diagnosis, prevention, appropriate reporting and treatment of the medical consequences of common

> societal problems." That is still being increasingly defined as to whether you talk about issues of food deserts and poverty and gangs, or different social and environmental determinants of health. And so that that's an area in evolution.

Dr. Kling continued to read many of these standards verbatim to me. And, after reciting all of this to me, concluded by saying "a lot of stuff, right?" And, in many respects, Dr. Kling is right—these LCME Standards hold a lot of stuff. Dr. Kling, as did others I interviewed, found the LCME Standards to be important and something that his institution took seriously—seriously enough to read them aloud to me.

Second, Dr. Kling also drew attention to how much is open to interpretation when he said a subcomponent was still "increasingly defined" or an "area in evolution." This vagueness, or the decoupling between the prescriptive standard and the ambiguity in practical implementation, is a hallmark feature of what structures symbolic compliance (Edelman 1992). And, third, Dr. Kling shows how he and his institution are evaluated by the LCME. They must complete a self-study document, where they indicate what they taught, in what format (e.g., independent course, integrated), and when in the four years of UME they taught it.

Regarding the content comprising the symbolic curriculum, as one medical educator at a middle-ranked school I interviewed, Dr. Tortora described, they cover implicit bias, disparities, and access to healthcare in their intersessions. Dr. Bernansky, a course director at a middle-ranked school, responded to my question about whether they taught the social sciences to their medical students by saying,

> So there's no specific area on or titled that. But those within the practice of medicine curriculum we certainly do touch on those areas because health disparities is all of that—race, culture, ethnicity. It's like, in African American populations prostate cancer would be far more prevalent, or in the LGBT community one would have to be a little careful because the prevalence of this particular disease is more prevalent in this community than that community.

Dr. Bernansky's recounting of health disparities statistics by social group epitomizes the positivistic social science characterizing the symbolic curriculum.

Other educators described the limited and positivistic nature of the symbolic curriculum. Dr. Walcker, another medical educator at a middle-ranked institution, also indicated to me that there was no specific course on the social sciences, when he replied, "I don't think so. I'm trying to think. I don't think there's a specific—I mean we talk about sort of the demographics of the patients." Dr. Jaffe, a medical educator at a similarly ranked institution as Dr. Walcker, explained their Practice of Medicine (POM) course "touches on epidemiology and quality improvement and systems change; so they have a bunch of sessions about social determinants of health."

The students in my sample described similar content limited in both time and scope. When I asked Mark, a medical student at a middle-ranked school, what kinds of social sciences he learned, he explained, "the social determinant aspect you know, like I said I don't recall a ton of formal training. It was more kind of interspersed with small-group discussions and then during clerkships." Another medical student I spoke with, Sam, said that they received "little snippets of documentaries. It was one that they had talked about migrant workers that are in different parts of the country, their experience and their health issues that are related to it." Both Mark and Sam point to how they learn a little bit about how social determinants of health might impact a patient, or different populations and do so in a way that is minimal.

While one setting of the symbolic curriculum occurs in a limited intersession, the central way that medical schools enact the symbolic curriculum is by teaching the course in the POM sequence. Both varieties of the symbolic curriculum are visible on an example of a curricular map in Figure 5.1 below. With the schematic in Figure 5.1, you can see the intersessions that are dedicated to the social sciences (e.g., *Health Policy*).

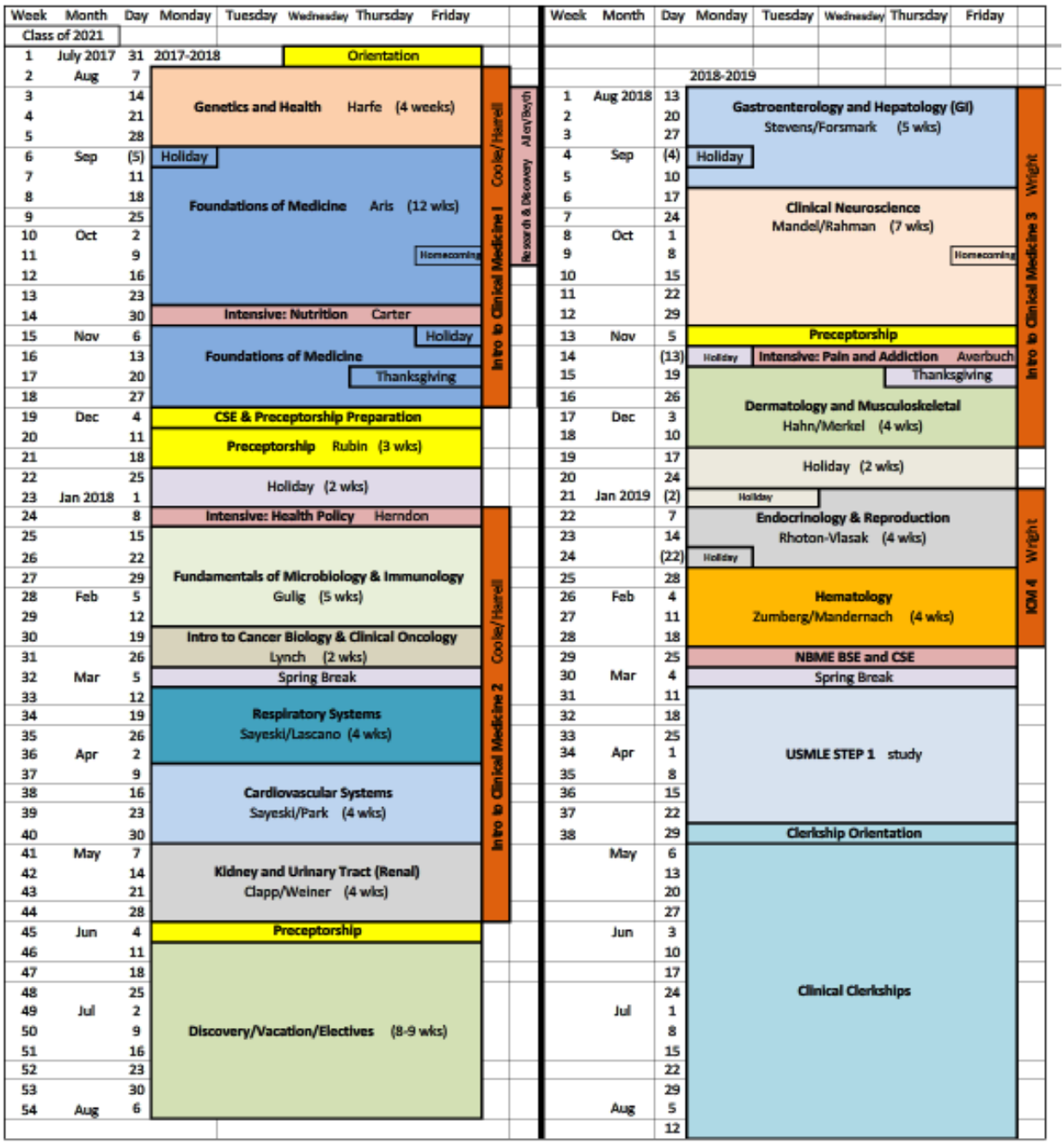

Figure 5.1: Symbolic Curriculum Schematic (Y1 & Y2)

These intersessions receive very little attention relative to the rest of the courses (e.g., *Genetics and Health, Foundations of Medicine, Fundamentals of Microbiology and Immunology*, etc.) and

right when students return from their holiday break. Running vertically, one can see the *Introduction to Clinical Medicine*, which is this school's version of a POM course, and depicted as covering: "patient interviewing skills, professionalism and ethics, medical system structure and health disparities, cultural competency, provision of health maintenance and use of health guidelines."

In general, the symbolic curriculum encapsulates the instruction of the social sciences in either a confined way within the presentation of knowledge or by being a part of the instruction on skills within the POM course. Another example of a delimited way in which the social sciences are taught is from this low-ranked school: "ADH is a one-day interprofessional (nursing and medical students) educational module that introduces students to the impact of community health and bioethics in addressing disparities in healthcare delivery. Within care teams, students explore how socio-economic disparities based on zip code, living conditions and access, impact health in families. Students will reflect on their own biases and knowledge of the principles of bioethics as they apply them to case scenarios with family members." Note that the entirety of this school's social science instruction happens in a single day.

Oriented toward clinical relevance and presented in the form of health disparities statistics (e.g., patients from low SES backgrounds get sicker than high SES backgrounds), the content of the symbolic curriculum is consistent with the presentation of biomedical/clinical information, like facts about groups of patients. In many regards, the inclusion of this social scientific information could be considered a victory for the social scientists who have dedicated their careers to documenting these inequalities. But, because of where and when these educators teach these topics, students do not perceive these sessions to be important. To elaborate on this point, I will draw upon an interview I conducted with a medical student that is particularly illustrative of the

content, length, and format of this symbolic curricular practice. This example also highlights that when educators choose to teach the symbolic curriculum in the lecture setting as an intersession or in the POM sequence setting, they send messages to students that the content is not important to their medical education.

When I asked a fourth-year medical student, Caroline, if she learned about the social sciences in her medical school so far, she said she didn't know. I then asked her if she had heard of "cultural competence," which is one of the explicit LCME Standards (Standard 7.6).[52] She said yes; I followed up by asking her what she thought "culture" meant, in that case. She told me, "we don't get tested on the information we receive so I can't give you a definition of culture." She went on to explain the structure of how she learned about culture, which was a week where all 170 students in her cohort were "required to attend lectures and panel presentations that covered ethics, cultural competency, professionalism, and medical malpractice." Caroline said that the panel presentations were often members of the LGBTQ community or people with disabilities.

At this point in the interview, Caroline and I had developed a good enough rapport that I felt comfortable asking her that if she couldn't remember how to define culture, then was there was anything else that stood out to her from the week. She had two examples. The first was that they were given a map of the city with the life expectancies in Census tracks; the second was that they were shown a video on cupping and traditional healing, which she explained covered how to

[52] My reason for inquiring about cultural competence is because other scholars have shown that despite all of the institutionalization of cultural competence, there still is widespread ambiguity and disagreement about the purpose and instructive capacities of cultural competence (Jenks 2011). Not only is there heterogeneity in content, but there is also a large degree of variability in commitment to cultural competence. According to the self-described cultural competence experts, cultural competence measures are consistently having to negotiate the tension between relevance on the one hand, and theoretical accuracy on the other (Betancourt et al. 2010). Critics of the institutionalized cultural competence curriculum and protocols "have pointed to an essentialized, static notion of culture that is conflated with racial and ethnic categories, seen to exist only among exotic 'Others,' and ultimately places blame for health disparities on the 'difference' of culturally marked patients" (Jenks 2011:211; Beagan et al. 2003; Carpenter-Song et al. 2007; Gregg and Saha 2006; Fox 2005; Kirmayer 2012; Taylor 2003; Wear 2003).

recognize when these practices were dangerous. I concluded this part of the interview about this particular curricular practice by asking Caroline what she thought the goal of the course was. She said, "an opportunity to look at the non-science parts, but a lot of that is not applicable until the third or fourth year."

While I will focus on the impact of the symbolic curriculum in a later section of this chapter, what I would like to highlight here is how little time educators at Caroline's institution decided to spend on these LCME Standards. To put it in perspective, her course comprised one week out of 40-46 weeks that students take coursework, or just over 2% of curricular time in a given academic year. When I asked medical educators in my sample and reviewed the curriculum of medical schools, it is clear that the symbolic curriculum earns its name through the limited amount of time they devote to the instruction and when they decide to teach it. Because, as Dr. Stephens, a medical educator at a middle-ranked school notes, "usually the LCME is not that prescriptive down to the hours." Many students described the amount of in-class, faculty-led time devoted to the social sciences and covering the prescriptive LCME Standards as so minimal—sometimes just half a day, other times a week.

Some educators establish a course to teach the social science elements of the LCME standards, but we can identify the symbolic nature of this course if it is relatively short or placed in a de-emphasized part of the school year, like these "intersessions," which are one- or two-week periods in between the regular curriculum. What's more, sometimes educators teach the symbolic curriculum right before the students take exams, or right before or after a break (see Figure 5.2 below). For example, as Dr. Giannattasio, a course director at a top-ranked medical institution, explained to me,

> So throughout the curriculum obviously because it is LCME requirement, the way we structured our clerkship year is 12-week blocks, and between the 12-week

> blocks they would do this one-week intersession, and we'd come back, and we'd visit cultural competency within that intersession. Yeah, there's not much formal, and they're doing away electives and finishing up requirements, but within the requirements, there are—we require for example a one-week concentration.

At Dr. Giannattasio's institution, students run from their clerkship electives at different institutions and come back for a single week to take this intersession.

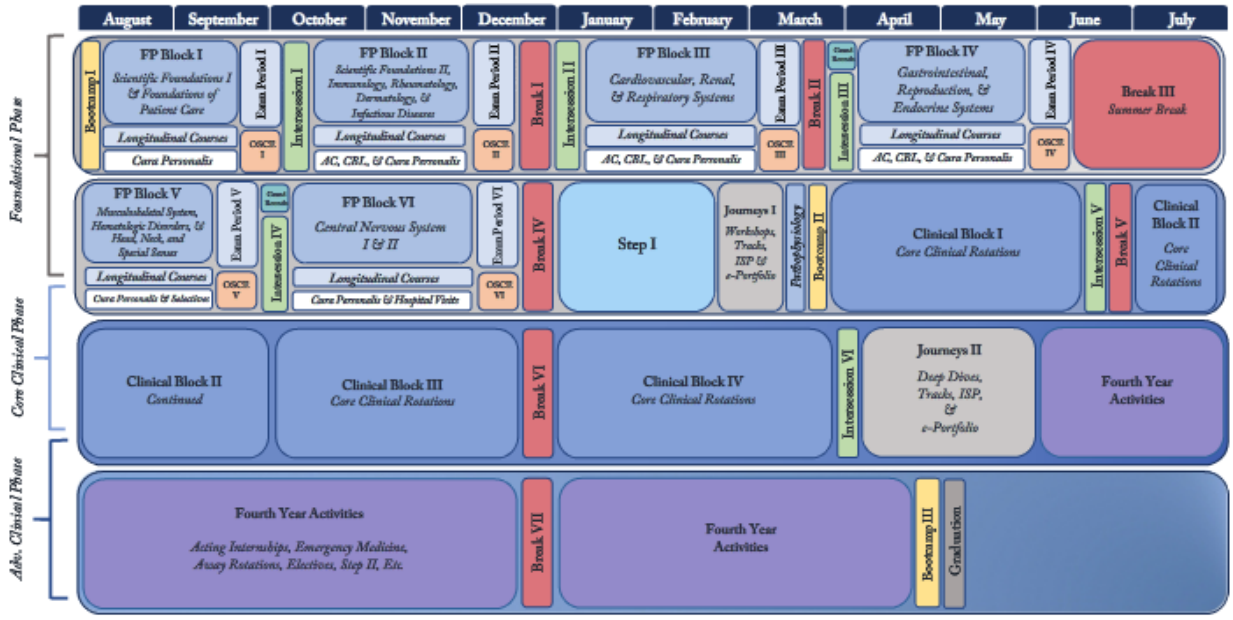

Figure 5.2: Symbolic Curriculum Schematic (Y1)

In contrast to the reality of symbolic curricular practices that Dr. Giannattasio, Dr. Stephens, and Caroline depict, Dr. Gallagher, an educator at a middle-ranked institution that enacted the symbolic curriculum, explained that this minimal content was suboptimal when it came to the integration of the positivistic social sciences in medical education: "we just need to be weaving these themes into every lecture right—you can do a lecture on hypertension and it's not done unless you talked about the disparity issues or those you know differential treatment approaches." However, despite this desire, most educators took on the cordoned off and minimal approach of the symbolic curriculum, by teaching the social sciences in intersession lectures and the POM sequence. A final feature of

the symbolic curriculum is that the social science scholars in my sample immediately recognized this curriculum as easy to implement because any clinical faculty member could do it and it was consistent with what students were already learning in a biomedically dominant curriculum. Dr. Bettles, a social scientist at a middle-ranked medical school, explained how "whomever is teaching the course" or lecture block will be asked to teach interspersed bits on social sciences.

In sum, for many educators, the LCME Standards are perceived by educators in my sample as a step in the right direction. For example, educators at the few schools that enact the foundational curriculum felt that they were already ahead of the curve but believed that the LCME Standards held more promise for educators at other schools wishing to engage with the social sciences in a more critical and interpretive manner. As Dr. Dema, a sociologist at top-ranked medical school that utilized the foundational curriculum, told me,

> One of the things about medical schools is that there's certifications and the LCME there are agreed-upon competencies in areas that you have to cover. In essence, say more and more you find yourself being ahead of the game because people are sort of waking up to this. It was a huge step forward when the MCAT started including social and behavioral science, and that was a big breakthrough for us. I actually worked with the AAMC on integrating that material. They've had a pretty elementary, shall we say, command of what social and behavioral sciences were or could be. But we are making progress, I now write—I'm on one of the question writing committees for the National Medical Board Step One and Step Two.

Here, Dr. Dema discussed how he and his institution are at the forefront of the move to incorporate the social sciences into medical education. He has built the intellectual infrastructure for his institution as well as helped create further incentives for the inclusion of sociology in medicine by writing questions for the USMLE exam. However, Dr. Dema is an exception here. The foundational curriculum is driven more by the knowledge of what a deep understanding of the social sciences, in this case, could do for doctors, rather than an attempt to adhere to the LCME Standards. But most medical educators view the LCME Standards as important but do not devote

time nor assessment to their implementation, resulting in little more than a symbolic compliance with the standards: a bare minimum strategy of incorporating the social sciences that I identify as the symbolic curriculum.

EXPLANATION

As the description of the symbolic curriculum shows, the LCME Standards offer both prodding and flexibility in encouraging medical educators to implement the social sciences. The institutionalized justification of the LCME Standards is the first explanatory factor; however, I also must elaborate on the weak intellectual infrastructure and the appeal to clinical relevance to fully explain how the symbolic curriculum takes on the shape that it does.

Presence of the LCME Standards

The first condition necessary to explain why schools implement the symbolic curriculum is the simple point that it is required. At the start of one panel at the AAMC annual meeting in 2017, the moderator introduced the topic on the social sciences in medical education by saying, "I apologize in advance for bringing down the mood in the room, but today we will be talking about the LCME requirements." Current U.S. medical school standards for accreditation, as outlined in the *Function and Structure of a Medical School* report by the LCME, contain guidelines for the medical school's mission, leadership, administration, faculty, infrastructure, curriculum, evaluation, and student base (LCME 2018). The LCME Standards, as my observations, interviews, and curricular data show, loom large over contemporary U.S. medical educators. As Dr. Glynn, one Dean of UME at a top-ranked institution that used the symbolic curriculum informed me when I asked if they taught the social sciences: "so there is a big push to treat everybody equally."

They are simultaneously prescriptive and ambiguous, a combination that results in the symbolic curriculum, a curricular practice that I name as such to capture how it functions similarly to the "symbolic compliance" concept outlined by Edelman (1992). When an organization, whether it be a firm or school, enacts symbolic compliance, they are taking actions that could be interpreted as fulfilling the mandate of the new law or standard, but these actions are limited in power, scope, and effect. In and of themselves, the LCME Standards do not guarantee that educators enact the symbolic curriculum; in fact, without the opportunity that the LCME Standards present, there might not be any social sciences included at all. As Dr. Gattinella, a medical educator with sociology doctorate articulated in relation to their inclusion of the social sciences, "partly the push for this was changes in the LCMEs and the boards that now in the area of social sciences have a larger draw."

To show how the LCME Standards serve as the first explanatory condition in understanding how the social sciences are implemented at all, I will draw on an extended example from my interviews. Dr. Li, who was a clinician and was in charge of the UME at his middle-ranked institution, explained to me how important his clinical experiences were in shaping his awareness of what was lacking from his training. He said, "in medical school, you know, I'm learning the basic sciences, the same things as everybody else. Then clinical sciences but I kept seeing at the time—I mean I wasn't as nuanced in my perspective as I am now—but I kept seeing health disparity after health disparity in the field and I didn't understand how we were not talking about any of that. It was just horrific to me; I was like, 'we're just going to pretend that this is not happening?'" When Dr. Li was applying to residencies, he learned about a residency program in family medicine that was housed within a Department of Social Medicine. He said, "the social medicine was all the population health, advocacy, and all that stuff. I thought, 'wow this sounds

really different, like they're talking about the stuff that doesn't even exist in my school.'" Dr. Li sought out that training for his residency and was excited to be able to engage in this type of work once he took a faculty position at another institution.

When I asked Dr. Li how he approached integrating the social sciences into his curriculum at his present institution, in his position as a director of the UME, he said they were fighting folks for space in the curriculum to have topics such as "community health, occupational health, environmental health, health policy, health disparities, and social determinants of health." As head of the curricular re-configuration, he was trying to represent the interests of integrating those social scientific topics. Despite there being interest from his fellow faculty members in these issues for the past 13 years, very little had made its way into the curriculum. He was really excited by the LCME Standards, telling me,

> Right now I'm actually heading two of the sub-committees which is why running around with templates and crazy stuff. Thirteen years ago people knew early on that these things are important for all medical students to know but they were not part of the LCME Standards that you have to teach this stuff. For the most part, there was no rationale for external people who don't care about population health to make this happen. What ended up happening was the LCME was coming in and actually requiring the teaching of population health, requiring the teaching of implicit bias. I mean all of the stuff that I've been saying forever. Thank God they finally put it in there so we have to teach it. The nice thing is that accrediting body does that.

Dr. Li felt like with the LCME Standards, he finally had the impetus to get this material in, but he described some significant barriers that he still faced, like other faculty members whose discipline was under threat. He parodied some faculty on the committee, saying "oh, my six weeks of molecular biology signify that I'm somehow not as important as a block that is 12 weeks in length."

He went on to say, "so when you're trying to teach something like population health that was never a part of the curriculum at all and it wasn't seen as important the people who are going to complain the most are—and again these are just general rules but it's the truth—the basic

sciences faculty are absolutely the first ones to panic. Because the trend in every medical school is that you're shortening the basic science years." Therefore, Dr. Li's account shows how even with the institutionalized presence of the LCME Standards, he still struggles to find the curricular time to include more social sciences content. As the description of the symbolic curriculum showed, the existence of a requirement alone does not specify how medical educators choose to fulfill it. Therefore, the LCME Standards serve as the opportunity for the social sciences to be included, but there are other explanatory factors that explain why, in the case of the symbolic curriculum, so many schools end up teaching a delimited amount and positivistic content of the social sciences.

Weak Intellectual Infrastructure

Intellectual infrastructure constrains faculty in how they can respond to LCME Standards. In other words, the structure of medical school faculty is important. Most clinical faculty occupy positions of leadership governing the UME, yet basic sciences faculty have long been a part of curricular instruction. Therefore, as Dr. Li in the previous example illustrated, basic sciences faculty often seem like the biomedical scapegoats, stymying efforts to include more social sciences content in the UME curriculum to fulfill the LCME Standards.

Incorporating social sciences into an environment where, as clinical faculty member Dr. Shah said, "within the world of medicine you need to mitigate countervailing messages that say this is a waste of your time," educators described needing to overcome attitudes of basic sciences faculty that the humanities and social sciences are useless, soft, or too critical in order for the basic sciences faculty to give up some of their curricular time. Basic sciences educators might understand the impetus for the LCME Standards but simply wish to elevate the prominence of

their own discipline, because time is a major constraint that all educators face in the medical school. Clinical faculty member Dr. Gutierrez related this impression by stating, "I believe that most faculty see the value of the courses. They just don't want to give up time in their own course for another course." If these schools had educators trained in the social sciences with similar amounts of power and respect as the basic sciences, it might be the case that what Dr. Gutierrez experienced might be different. Importantly, clinical educators really seemed to want to include the social sciences, but they either lacked the expertise, as the examples from Sam and Caroline earlier about being shown movies indicates, or they thought that clinical experience was equivalent to social science expertise.

One medical educator at a middle-ranked school, Dr. Gupta, articulated this mismatch between desire and capacity as follows:

> The LCME requirements—they tell us we need to be able to recognize biases in selves, others, and health care delivery. They tell us we need to be professional. We could use anthropology, history, or sociology to teach this. The idea would be that we had 1 trained facilitator to every 10 students. But in reality we have 800 students and instead ask them to reflect on professionalism.

As Dr. Gupta points out, ideally, they would have a trained facilitator to instruct students on the social scientific material to meet the LCME Standards; however, they simply do not have the intellectual infrastructure to support that.

Interestingly, partnerships across departments were minimal. When I would ask respondents if they ever had a social scientist from the undergraduate side of campus help develop curriculum, train faculty, or teach the students, the educators in my sample largely invoked the "siloed" nature of their institution. The intellectual infrastructure of a medical school thus generally does not extend beyond the medical school and eager, yet ill-equipped clinical faculty take on these instructional tasks despite having undergone faculty development. One thing about

the way in which medical school instruction works is that often lecturers are lecturing based on notes or slides that they did not personally develop. As Dr. Watkins pointed out to me, this unique form of faculty inexperience might manifest as follows: "And depending on who the lecturer is, he or she may not be—they may not know anything about environmental factors. So sometimes the lecturer may 'say I'm really not sure; I've not heard that.'"

While the demands of curricular time by basic sciences faculty and the lack of clinical or social sciences faculty able to teach the social sciences impact the limited amount of curricular time that characterize the symbolic curriculum, another aspect of the symbolic curriculum is when the social sciences get categorized as skills to learn rather than knowledge to master. In these cases, it seemed as though enthusiastic, yet uninformed clinical faculty did not fully understand what social scientific knowledge is nor how to include it. For example, when I asked Dr. Johnson, who worked in the Practice of Medicine sequence, about whether they taught any social science, she began, "we did one on breaking bad news, but you know there are topics that are very medical but then there's this kind of communications side to it. Maybe that's social science; I don't know." While the weak intellectual infrastructure, signaled by the lack of support or the poorly trained faculty is important for understanding how the desire to meet the LCME Standards is organizationally less achievable, the final component to explain how the symbolic curriculum occurs has to do with the structure of opportunity and constraint posed by the appeal of clinical relevance.

Clinical Relevance

A crucial part of how the symbolic curriculum takes on its symbolic nature is in how the social sciences are perceived as clinically relevant. In this section, I show how clinical relevance

serves as both an opportunity and a constraint for the incorporation of the social sciences. The opportunity is in that the clinical relevance serves as a legitimating mechanism for the social sciences; the constraint is that because the way in which clinical faculty gain this appreciation is through experience, that helps explain why they would be likely to place the social sciences in the Practice of Medicine (POM) sequence. To gain legitimacy in medical schools, it is important for the material to resonate with clinicians. Dr. Bettles, for example, who is a non-clinician sociologist, said that it was a matter of "whether the students will trust us in the classroom. As PhDs and non-clinicians there's a big barrier to believe what we're talking about is true… and are really concerned about whether or not they would turn off because I don't have a MD after my name." Medical educators from biomedical backgrounds in my study—as well as those that serve as the leaders of the field, as the LCME Standards indicate—recognized the importance of teaching students about the social foundations that patterned health and healthcare disparities. In fact, medical educators indicated that hostility to humanistic and interpretive knowledge might be abating, as Dr. Robinson, a Dean of Medical Education at a top-ranked medical school, articulated:

> I think there have always been some people, and I think maybe there are fewer now, who think that the touchy-feely stuff isn't important. But I think there's fewer of those folks than there used to be, and I think if you look at how people approach both their education and the practice of medicine, you'll see a lot more appreciation of the social role of health care and the social contributors.

In general, the clinical faculty in my sample—those medical educators with MDs—referenced their clinical experience as critical to their appreciation of why the LCME Standards were necessary. Experience, in this sense, is the link to applicability, evidenced by Dr. Lombard, a medical educator, who said, "if you're talking about social determinants of health, at least the word 'health' is in that phrase."

When I spoke to clinical faculty members, time and again they referenced their personal clinical experiences as the reason why they valued the social sciences. When Dr. Tortora, a course director of the Practice of Medicine sequence at a middle-ranked institution, explained the importance of the POM course content on the social sciences to me, he said: "I think anyone who's worked in a healthcare setting knows that on an individual day, you're going to see people that you would never see in your day-to-day life. No two people are the same—what motivates them, what drives them, what resources they have. I may see, on a given day, a Syrian refugee with nothing. Literally nothing. And then see a hedge fund manager who has 500 houses." By leading with "anyone who's worked in a healthcare setting knows," Dr. Tortora is invoking the ubiquity of clinical experiences with social difference and why the social sciences are clinically relevant.

Similarly, as Dr. Pultz, a social scientist at a middle-ranked institution, recounted, the clinical experience of key faculty can lead the faculty to pull the social sciences into the fold:

> I work with clinicians who are, for example, my chair is an endocrinologist and he studies diabetes. He's quite senior in the field and he right now thinks that the biggest issue to contend with is poverty and social determinants of health. No matter how big of strides we've made with medicine related to diabetes if we don't fix those structural and system issues people will not be able to manage their disease in and optimal way. So having come to that realization he spends a lot of time educating around the social determinants of health. So these are not things that I'm imposing onto health care because I want a job; I'm responding to these needs that people are finding cannot be addressed through basic science or technology or medication alone.

The clinical experiences of current faculty motivate a lot of the incorporation of the symbolic curriculum, in part because the bulk of their careers have taken place amidst a slew of professional changes (e.g., increased power of insurance companies, hospital administrators, patients' rights activists, patients-as-consumers, etc.).

As Dr. Watkins explained, their institution's impetus for changing the curriculum "was experiential—it was the lived experience that forced, I think, me at the time to really look more

critically from our perspective as the physician and what we brought to the table with us affected how we cared for patients." Dr. Rivas explained in more detail how his clinical experience allowed him to see the value in the social sciences:

> Well, I think that I've been around a little bit in health care now. I'm in the middle of my career and we don't have that many breakthroughs. We haven't cured cancer and we don't do well with folks with chronic disease or disability. Sometimes there's new drugs and new devices that are amazing. But the fact is the area where we can really grow is understanding patients and their backgrounds and their beliefs and trying to meet them more closely to where those things are. I think that has the potential a huge public health potential to not only make health care better and kinder. I think it'll actually save lives and I think it'll actually save a lot of money, too. We know what to do it's just a question of getting the will to do it.

My point of detailing this clinical experience is to draw attention to the importance of clinical relevance for the creation of the symbolic curriculum.[53] Educators are drawn to clinical relevance as a source of justification for the LCME Standards, just as they are drawn to the institutionalized call to solving the problem of health and healthcare disparities. As much as it is an opportunity, the emphasis on clinical relevance comes at a cost, because it reduces where this content fits into the rest of the curriculum when clinical faculty are the central figures leading this curricular effort.

Because this rationale is premised on experience, snippets of social science are often included within the "clinical skills" development in the POM sequence rather than the "basic knowledge" blocks that often comprise the foundational curriculum. This point is perhaps best exemplified by Dr. Johnson, a medical educator at a middle-ranked institution:

> I would say areas where the content is related to humanities and social sciences would be, for example, in our interviewing course we have like a lecture on interviewing patients about sexuality or interviewing patients who don't speak English as their first language. Students also have a lot of experience learning from cases, specific cases. For example, they may be told, okay, Mrs. Smith is coming

[53] As another example of how clinical relevance was on everyone's minds, Dr. Sampson recounted this humorous misunderstanding that occurred the first time she proposed doing a small elective on literature. She said, "When I started to tell my colleagues, I think I'm going to do something with literature, there was this rush of enthusiasm. Everybody was so excited, I was like 'whoa really this is great.' They said 'yeah we really need someone who can explain EBM to our students—like, evidence-based medicine.' So they thought I was talking about literature reviews."

> in and is a standardized patient. And Mrs. Smith is Indian transgender; and give you a complex case, a complex individual. That contextualizes, I think, for students and makes is clinically relevant when concepts from humanities and social sciences would come into play. Do you know what I'm saying?

By placing the content on the social sciences as part of the skills section of the education, students are learning to place the social sciences as falling in the realm of experience rather than knowledge. Moreover, when they receive pieces of social science knowledge, such as that "Mrs. Smith is Indian transgender," they are receiving positivistic versions of social science, a point of which I will return to in the final section of this chapter.

Social sciences educators at these institutions reported that their attempts to integrate social scientific knowledge in the form of concepts and theories was often shot down. For example, Dr. Buechel, a social sciences scholar and clinical faculty member at a top-ranked medical school, recounted a time where she tried to teach Goffman's concept of stigma to the entire first year medical student body. She started to laugh as she described this "failure." She was convinced that it went above the students' heads and that she would have to recalibrate entirely to be able to get these concepts to resonate with them. In the curricular setting in which she was teaching, where social science was not yet immersive nor embedded foundational curriculum, but rather she was working on creating this change, students were not yet expected to engage with social science in a meaningful way. Instead of students arriving prepared to learn critical social science, she had to adjust and meet students where they were.

Many social sciences scholars lamented a problem of "shallow" or "introductory" understandings of their topics within the medical school because of the constraint that clinical relevance posed. This problem, according to Dr. Pultz, is a "weird" experience because these scholars often come from across campus "where conversations… had been longstanding, incredibly lengthy, and very robust." Another respondent, Dr. Gattinella, described this as a

byproduct of interdisciplinarity itself, as interdisciplinary collaboration by necessity requires or forces a dumbing down of each field that is being brought into conversation; the multiple perspectives "need a lowest common denominator." The lowest common denominator, or the social sciences that are most immediately perceived to be clinically relevant, tend to be more positivistic knowledge or experientially-grounded skills.

Dr. Carpano, an anthropologist at a top medical school, described the state of the social sciences within medical education:

> Well see my own feeling is that there are two kinds of—two ways or two forms of social science that are taught to medical students. One are policy-related social science and those would be social epidemiology, issues in health inequalities and social inequalities, etcetera. I think those are quite important. But I'm talking about the anthropological and sociological understanding of the doctor-patient relationship, of clinical communication, of the illness experience, as a social experience, etcetera, of the bureaucratic structure of a hospital and the clinic.

In his description of the first form of social science, Dr. Carpano points to a social science that is packaged for biomedical consumers; the second does not compromise the interpretive social science for this audience. Similarly, Dr. Grossmith said to me that your average medical school served as "an example of when you have a sprinkling of the social, but it's a safe social." Dr. Grossmith elaborated further, "differentials statistics is what gets integrated into medicine. Bringing in history, in particular, is challenging. The idea that something could have more than one meaning is just hard for students given the barrage of information they're supposed to process." This quote points to how the symbolic curricular practice is safe specifically because it is consistent with the presentation of knowledge and articulated learning objectives within medical education and because they've cherry-picked the small pieces that are consistent with the dominant biomedical knowledge, which is very different from how educators of the foundational curriculum see the foundational curriculum as consistent with medical learning objectives.

In contrast, according to Dr. Rogers, an historian at a top-ranked institution, the ideal collaboration entails scholars approaching the same problem from their different sets of expertise. He offered me an example: "with an LGBTQ+ patient, a historian would know how this patient population has been treated in the past, their wariness of the medical profession, and even the enduring/current health problems they incur; a faculty member with a MD would know the medicine better, like how to treat the symptoms." The combination of the two would lead to a more comprehensive education for students, because they could familiarize themselves with the social and biomedical processes that shape how that patient enters the exam room and what world they will leave into. This ideal approach is achieved by Dr. Vasquez, who is able to teach a foundational curriculum on the social sciences. He partners with the basic scientists in teaching the essential knowledge to all of the medical students: "[the course] is more focused on the essence of disease and social and environmental impacts that is a collaboration with epidemiologists and actually a lot of basic scientists." Clinical relevance, in this sense, is both a gift and a curse. It certainly allows for many clinical faculty members to see the value in teaching the social sciences captured in the LCME Standards, but because their sympathies lie within experience grounded in positivistic facts and their personal clinical practice, they view social scientific knowledge as consistent with that epistemological position.

IMPACT

The symbolic curriculum, with its limited content and format, emphasizes positivistic knowledge or soft skills. As a result, it has two central impacts. The first, as perhaps already clear, is on the meaninglessness of these topics for students. This impact is a result to the limited time devoted to these topics or the devalued status of this material relative to the rest of the curriculum.

The second impact has to do with the reduction of the social sciences, which occurs with the combination of limited time, limited intellectual infrastructure—namely, poor faculty facilitation—and a "just the facts" style inclusion of the social sciences.

Impact on Student Learning

At one session at the 2016 AAMC annual meeting, a panelist discussing how to approach the instruction of social sciences presented on the LCME Standards. They closed their presentation by saying, "LCME accreditation data is not publicly available because it is probably so bad." They went on to give suggestions of how to improve the inclusion of the social sciences in medical education, and therefore I take that panelist's point to be that the LCME Standards are presently poorly addressed at most medical schools. A central impact of the symbolic curriculum is that it is precisely that—symbolic. As Dr. Li, a clinical faculty at a middle-ranked institution concludes, the curriculum impacts the medical students, because when they get very little curricular time devoted to the social sciences, it leaves students "feeling like, well, if something's 12 weeks then it must be more important than something that is 1 week. We don't intend to send this message but that's exactly what ends up happening."

One medical educator at a middle-ranked institution, Dr. Feldman, described how she thought that her institution did not do students any favors when she told me that "we teach them how to pull the baby out of the river, take care of patients one at a time, but we don't teach them how to go upstream and stop whoever is throwing the babies in." She went on to say that they simply do not dedicate the time to engaging in this foundational curricular practice. Dr. Mubarak, another medical educator, thought that a central reason why their institution struggled with incorporating the social sciences beyond that which was immediately and narrowly clinically

relevant was because medical educators and students simply did not know what to do with this knowledge, arguing:

> There is some part of our how the biological views of health and disease suggest that certain information is better—if you will—better information. And so yeah, if you want to talk about economic inequality and impact that that has on a person's health. One central response to that is to say well, what can I do about that? And so why think about that? Instead, I know how to prescribe medication, and so I'll just keep prescribing medications because I know that, and I have control over that.

Presenting a few social scientific facts without the tools for understanding how this knowledge happens and what the medical profession can do about it can confuse or frustrate students. Most students described that they really did not remember much about what they learned. Recall Caroline, a medical student who could not define culture from her medical school coursework and place her in contrast to Patrick, who I described in Chapter Three, who learned about the importance of a physician's role in addressing social inequalities.

The issue with enacting a symbolic curriculum, where students learn very limited amounts of social scientific knowledge, is that students do not seem to retain or value this information. This curriculum essentially makes social science invisible, as was noted by Dr. Perez, a social scientist:

> There hasn't been a coherent either humanities or social medicine set of lectures even or set of activities that all students are required to do. There's a smattering in doctoring: there is something on like the social determinants of health, or on race and gender. But there isn't nearly as much there—it's hard to tell exactly where it is because it's sort of slipped in in ways that are often invisible. So from the students' point of view I think they really feel like there isn't anything. There isn't any kind of coherent like overarching sort of idea in terms of the integration of or you know having a social science and humanities component to the curriculum.

Dr. Perez explains that, in the symbolic curriculum, the "smattering" of social science lessons seemed hidden amongst the biomedical sciences. It is important to point out that social scientific material is always considered in comparison to the rest of the curriculum. Dr. Seery, a social scientist at a middle-ranked institution, explained, "for a room full of 200 people who are in the

middle of studying for their gross anatomy it's harder for them to understand the importance of problems around the body—they are being taught, in med school, 95% of the time, you need to know this exact structure, and you need to memorize exactly what the structure and function of this thing is."

Gyi, a student I spoke to about his experiences with social sciences and humanities curriculum, summarized the effect of the symbolic curriculum in a similar way: "I think in reality it's because there's just at the end of the day like yeah it's great if you learn about, you know, the proper way to use pronouns with LGBT patients. But, like, you know if you fail your cardiology exam you have to repeat the year, you know what I mean?" Other students, such as Dylan, pointed to how little the symbolic curriculum meant to them:

> But in medical school I—yeah there is an issue there; there is an issue. It comes up, people talk about it, and there are certain lectures and parts of the curriculum where they intend to address certain issues. They tend to be almost like superfluous kind of lectures where no one really cares. Because it's just now we're going to take a little break and talk about you know the Mediterranean Diet or Alternative Medicine how acupuncture and Tai Chi have been known to do this and that. We talked about we had like one lecture on domestic violence but in general maybe it was just our institution but these topics were not very well addressed.

The educators' usage of the symbolic curriculum entails the instruction of such minimal amounts of social scientific knowledge because, lacking a strong intellectual infrastructure, these clinical faculty justify its inclusion based upon clinical relevance and do not know how to teach the knowledge. This decontextualized, piecemeal instruction of social science leads to students struggling with the content or rendering it meaningless.

Impact on the Reduction of Social Science

The symbolic curriculum also can take positivism too far and promote reductionist understandings of social differences or lead to situations where medical students might receive

information that goes against what social scientists believe to be a correct representation of their contributions. When I asked if students learned about the "social construction of race," for example, Dr. Gattinella, a social scientist, explained that when it comes to the way the symbolic curriculum is taught at his school,

> I think those are the concepts that are missing, the concepts—I don't know, the cultural competency frameworks around this group likes bananas and this group likes strawberries and this group likes cherries, I find that stuff an ache and that's what we were doing in our curriculum when I got here. There are a lot of people, I think, who like that stuff. I think their way of understanding, the nature of group membership and preferences and stuff just does not reflect accurately what the social scientists say.

Dr. Gattinella was frustrated that his school was teaching reductionist approaches to social difference. In addition, by uncritically presenting social science, this symbolic curriculum engenders the seeds for other curricular practices such as the conscripted curriculum (which I will describe in the next chapter).

In describing one of the downsides of the limited time dedicated to the social sciences, Dr. Engle recalled how in his instruction of "racial associations with poor health care access or demographics of the HIV epidemic as illustrative of some inequities in health," there were "adverse student reactions to it because it feels like profiling." He continued:

> Like if I say this is an African-American patient from the southern United States who contracted HIV because he has sex with men, I'm telling a story of the United States HIV epidemic. And it was like men are three-quarters of our patients and disproportionately afflicts people who are African-American and is exploding in the south. *But if the only times in the curriculum being African-American is mentioned* is when that person has HIV or they have sickle cell anemia, you get the sense that it's a disease state almost to the African-Americans. If we haven't done a good job across the curriculum of making sure that's not the case, then it is profiling. One of the challenges there is that the organic process that we've gone through, that involves early adopters like me doing this stuff, can be underlined a little bit if it's not systematic across the board. So one of the downsides of integration that we really didn't anticipate is that there are some risks. (emphasis mine)

The piecemeal nature of the symbolic curriculum can result in the entrenchment of racial stereotypes rather than an understanding about how these differences are socially constructed.

Other social scientists described how they felt that the symbolic curriculum did not foster critical thinking, even when the students had opportunities to try to think this way. For example, Dr. Buechel recounted a memory of trying to teach about the complexity of assumptions and stereotyping, but the overarching message was lost on the students who did not have the critical thinking skills to understand her broader point:

> It's funny; I wasn't even thinking but just today I got my evals from a lecture that I did at the medical school about this case that happened a long time ago in some of my earlier cancer work where there was a Latino woman. She had been diagnosed with cervical cancer; shuffled around all over the place. And doctors are always telling Latinos that they get cervical cancer because they've been sleeping around. So she asked this doctor right before surgery, "how come I got this?" And he said "well, Anglos tend to get cancer of the breast more and Latinos tend to get cervical cancer." And she said "well, why is that?" And the doctor tells her, "well, because Anglos tend to smoke more and Latinos tend to start having sex at an earlier age and have more sexual partners."
>
> And so I presented this case to the students; *not* to say like look at this racist doctor, but to say look at all the training. He took his epidemiology on how you get cervical cancer or a sexually transmitted disease and then the statistics that Latinos have higher rates of cervical cancer, and just smashed them together. So it's one of those moments where you're taking all these things that you're learning and then come up with these ideas that are not right. But the students—like students either love me or they hate me—the students that didn't like that conversation basically said that I just took this example of a racist doctor; we all know that he's racist, and just went off with that.
>
> That's not what happened, but it's interesting that that's their perception of what happened. Because they're not seeing the value of the conversation on how easily that could happen. They don't need to be a racist; it's going to happen to all of them. They're all getting taught the same things and one day they're going to say something stupid like that. Does that mean they're racist? No. Well I think we're all a little racist. But the goal wasn't to say look at all these racists. The goal was to help them think about how easily these things—stereotyping, misdiagnosis, overlooking a diagnosis—happen. So I think for those students that example was a failure. It made me think about how I can do this differently so that I get at those students that don't get it right away.

As Dr. Buechel's experience indicates, in this one opportunity she had in the limited curriculum, her attempt to teach students about the perils of stereotyping and how to critically examine the bases of their knowledge fell flat. Just like with Dr. Engle's case, and the other instances of the symbolic curriculum, if this is the one time that students are given an opportunity to learn about this material, the pedagogical outcome is much less likely to be effective. What is more, Dr. Buechel draws attention to the perils of this positivistic, decontextualized approach to social science with the very example she was trying to teach her medical students.

CONCLUSION

The symbolic curriculum captures a strategy of incorporation that is consistent with previous cultural and organizational accounts of failed institutional change (Edelman 1992; Kellogg 2011). Educators enact the symbolic curriculum by including limited, positivistic pieces of social sciences knowledge or by teaching the social sciences as skills within the "non science" portion of UME experience, which is the Practice of Medicine (POM) course sequence. The medical educators' attempts to meet the LCME Standards are largely symbolic, characterized by the limited time and content that the material is given relative to the rest of the very demanding curriculum, and signaled in the meaninglessness that students attribute to it.

However, I do find evidence that the clinical faculty value the social science, at least in theory, that are a part of the LCME Standards. The justification of a compelling problem—the health and health care disparities—coupled with the institutionalization of requirements certainly motivate educators to include the social sciences. However, because most medical schools lack the intellectual infrastructure, in this case the faculty trained to interpret and facilitate the instruction on these LCME Standards and instead have clinical faculty whose interest is grounded in their

clinical experience, the symbolic curriculum takes on its shape. The symbolic curriculum thus shows that as much as these cultural structures, like the appeal to clinical relevance, are an opportunity, they are also a constraint, especially when medical schools do not have faculty who are adept at showing how pivotal critical and interpretive social scientific knowledge—not just positivistic knowledge and skills—is for the future of clinical practice. Moreover, the symbolic curriculum sets the stage for the conscripted curriculum, which will be the focus of the following, and final, empirical chapter.

CHAPTER 6: CONSCRIPTED CURRICULUM

As described in previous chapters, when it comes to the instruction of the social sciences in U.S. medical schools, there is an ideal outcome that social scientist and clinical educators alike aspire to cultivate in their students: an awareness of the social conditions that pattern health and health care, and the inequalities that emanate from these social arrangements. In Chapter Three, I detailed the foundational curriculum, which in the case of the social sciences entailed immersive and embedded content in anthropology or sociology, that were often topically oriented around illuminating the social underpinnings and manifestations of inequalities. It is rare that MD-granting institutions can pull the foundational curricular strategy of incorporation off. As I showed in Chapter Five on the symbolic curriculum, due to the epistemic and organizational structures of opportunity and constraint, the way in which educators interpret how the social sciences can help cultivate this idealized physician patterns where they teach the social sciences.

Because educators are compelled to address health and health care disparities and are bound by field-wide LCME Standards, medical educators must address social inequalities in their curriculum. And, because these medical schools lack the intellectual infrastructure to facilitate a foundational curriculum and are dominated by clinical faculty value the social sciences through the filter of clinical relevance, while most schools enact the symbolic curriculum under these conditions, they might also enact the conscripted curriculum. The clinical faculty in my sample think that the instruction of Practice of Medicine (POM) course—where students learn the clinical skills and social science topics relevant to clinical practice—is good and the content important; but, the POM sequence is where all of the "non-science" material is shoved making the course seem less important relative to the rest of the curriculum the students are needing to master.

In my interviews with medical educators and students, one way in which I operationalized social science was by asking follow-up questions about how they taught about race and racism. [54] In response, as shown in Chapter Five on the symbolic curriculum, medical educators are required to teach medical students to identify, understand, and address social inequalities to help reduce the role that clinicians play in the production of healthcare disparities, particularly along racial lines (LCME 2018). Yet as sociologists have documented (Edelman 1992; Kellogg 2011; Timmermans and Berg 2005), the relationship between a standard's existence and its implementation is an empirical question. I found that the majority of medical educators in my sample implement LCME Standards by conscripting students—especially students of color—into teaching race to their fellow students by asking students to share their lived experiences as members of particular racial groups. I conceptualize this method of instruction as the *conscripted curriculum*, and while this curricular practice may not sound like social science, the educators interpreted the LCME Standards in this way.

This chapter contains three sections where I draw upon empirical data from my interviews: the description of the conscripted curriculum, an explanation for why it arises, and its central impacts on students and student learning. First, I describe how educators rely on students to share their personal experiences as the main source of content about the understandings and inequalities

[54] Whether one considers the provision of healthcare (Greil et al. 2011; Stepanikova 2010; van Ryn and Fu 2003), practices of clinical research (Epstein 2007; Gamble 1997), or the composition of the profession itself (Feagin and Bennefield 2014), the medical profession has historically disregarded or perpetuated racial inequalities in the United States. Research from the past few decades suggests that racism undergirds a large amount of racial inequities in health outcomes, whether racism manifests at the systemic level, patterning how socioeconomic status is correlated with race (Feagin and Bennefield 2014); at the institutional level, patterning exposure to environmental toxins (Brown et al. 2003) and experiences of police brutality (Benjamin 2016); or at the interpersonal level, patterning the likelihood of facing discrimination (Brown 2000; Williams 2012). Moreover, sociologists have pointed to unequal treatment by healthcare providers as another source of these inequities, regardless of whether providers themselves are conscious of their racial biases (Greil et al. 2011; Stepanikova 2010; van Ryn and Fu 2003). In addition to the work on disparities, social scientists' work on the deception, mistreatment, and abuse of patients of color demonstrates how the research findings and technological developments of the U.S. medical profession were achieved at the literal expense of people of color (Byrd and Clayton 2001).

tied to particular social groups. Next, I explain how educators create the conscripted curriculum in their undergraduate medical education (UME) by attempting to implement the LCME Standard 7.6 without the intellectual infrastructure needed to support it, and, in turn designating the POM small group as the central setting for the delivery of social science content on race and racism.

While the data that informs this chapter's analysis is limited to solely my interview data, in my examination of curricular data I found that all but 33 schools teach social science in the Practice of Medicine sequence, and this same percentage of schools also describe their Practice of Medicine sequence as consisting of a mix of lectures and small groups, although they do not specify down to the percentage of time what is dedicated to small group and what is dedicated to lecture. If my explanation about the role of the small groups and the lack of intellectual infrastructure is correct, then this curricular data is suggestive of more widespread conscripted curricular practices.

Finally, I conclude this chapter by showing how educators' use of the conscripted curriculum has consequences for perpetuating racial inequalities by two different methods: first, by disproportionately burdening students of color and increasing their experiences of emotional exhaustion and isolation, and second, by further marginalizing the importance of social understandings of race for clinical practice. Therefore, I conclude this chapter with a discussion about how in their attempt to address social inequalities in health and healthcare, by enacting the conscripted curriculum, U.S. medical educators perpetuate social inequalities of their own.

DESCRIPTION

The conscripted curriculum entails students being asked to teach each other by sharing their lived experiences as members of particular social categories. As I will show, this strategy of

incorporation arises by a combination of factors, most notably the presence of a requirement to teach on social inequalities without faculty prepared to teach on it. The clinical faculty facilitators seem to be doing their best with the training they have been given and think that students will share information about their background that will allow students to imagine how they would react in a clinical setting to a patient that is socially different from them. As one low-ranked school's course description noted: "the half-day, off-campus session utilizes experiential exercises and small group discussions to give first year medical students an opportunity to learn about different populations they will serve and to explore ways to communicate in cross-cultural situations."

In this chapter, I often present data from students separately from faculty data, because they often had very different impressions of the efficacy and implications of this curricular incorporation strategy.[55] I will begin with the students. When I asked Riva, a white student in her third year of medical school at a middle-ranked institution whether she learned any social science, she said she "didn't know," which was not the first nor last time I received such a response. To follow up, I asked if she was taught anything about gender or race. She explained, "students are asked to share about their own culture or racial background and then sort of discuss how that influences their work or how that would inform their work. It's run by physicians and it's not usually always people who have any particular training in, like diversity training or anything like that. So I think sometimes the conversation sort of glides on the experience of the students."

While Riva's point about the faculty being inexperienced is certainly important, what I'd like to draw attention to with Riva's remarks is how she describes how educators explicitly ask

[55] And, by faculty here, I refer to faculty with biomedical or education backgrounds, not humanities or social sciences scholars who are on faculty. These MD or EdD educators—like all educators in my sample—have the best of intentions when they are engaged in the conscripted curriculum. If the symbolic curriculum was the bare minimum, then with the conscripted curriculum, educators thought that they were taking their curriculum to another level. They thought they were using state of the art pedagogical techniques to encourage group discussion around important social topics. Unfortunately, as this chapter's analysis shows, the students felt much differently about the impact of this strategy of incorporation.

students to share about their social lives and experiences. The conversations for learning about social inequalities are dependent upon students sharing experiences; the idea here is that in the sharing of experiences, students will learn about the experiences of marginalization which would be applicable in a clinical setting where there are socially diverse patients. When I asked Robby, a second-year white student at a top-ranked institution, how he has learned about racial inequalities, he also mentioned his fellow students. He said, "I think the thing that pushes students to think about it more is other students. And I don't think it necessarily should be the responsibility of the rest of the class to educate their classmates, but I think that's what happens because of class structure." Robby highlights how other students are educating their peers, and that this is part of the class structure, a point I will expand on later but can already be contrasted to the educator-led sessions in the foundational curriculum. The conscripted curriculum in this case is thus predicated on educators' expectations that students will share their personal experiences with race, and that in sharing these experiences, other students will learn the social science about race.

As an abstract pedagogical strategy, the use of the conscripted curriculum is ostensibly harmless. However, due to the realities of medical school classrooms where faculty do not teach a social scientific content about race and students of color are underrepresented, students of color are often disproportionately placed into positions of instruction by virtue of their racial background. This finding was made abundantly clear by the students of color in my sample. As Marian, a student of color in her third year at a top-ranked institution whom I interviewed, said, "I spent a lot of time in my first year trying to educate people, students and faculty alike… I'm constantly the only black person in this small group because there are five of us in the whole school." As she emphasizes, she is often the only student from her racial group in her small group due to their underrepresentation in the medical school writ large.

Educators explained that students of color brought experiences to the course, and that these experiences formed the content of the instruction of race. For example, Dr. Kerns, who is a director of the Practice of Medicine—or POM—sequence where social inequalities were taught, explained to me that the reason why the instruction was effective was because they were "a pretty diverse student body so it's not like there wouldn't be a wealth of experience in the room." And, in response to my question about when students learn about race, Dr. Lombard pointed out that "some students, they're not native English speakers or from America, so they have their own cultural concepts that they bring to the patient and the case, so I think that's where students get the content." Many of the white students and educators uncritically extolled the benefits of the "diversity" of the students for this curricular incorporation strategy, along the lines of what Christine, a white student, reported: "small group sessions have really been important because our class is really diverse and I really like that we have really good conversation about everyone else's experience going through this process."

Or, take Dr. Stephens, an educator from a middle-ranked institution who, after describing why the small group was beneficial as a space to learn about social science because it was a supportive environment, went on to tell me that "something that's very helpful to us in this is that our student body is actually quite diverse." A UME Dean at a top-ranked medical school, Dr. Glynn, elaborated further upon the notion that student-led sharing of diverse experiences was a way for students to learn about this difficult course content on the social sciences when she explained to me: "So, it's a really hard thing to teach but we have a very diverse group of students in the class from a lot of backgrounds. Purposely. There are men, women purposely drawn from all different racial, ethnic, and religious backgrounds, transgender, even people from Iraq that are princes, just a lot of people. They're coming from very different backgrounds."

Throughout the course of my interviews, it became evident that educators view the increased enrollment of students of color as a boon for their classrooms. When talking to educators and students alike, it became clear how students of color were understood as the workhorses in these small group spaces. These students are often directly prompted to participate or felt compelled to participate because the faculty do not provide didactic material nor push the conversation. As Mark, a fourth-year white student, articulated in response to my question about where in medical school he had learned about social science topics like race: "I've been lucky to be around people who have taught me about it… I think race comes up a lot more when people of color are in those small groups and then bring up the fact that this has been my experience, da-da-da. They basically have to be the catalyst for it to even be on the table."

As another example of how students of color are more likely to be conscripted into sharing their experiences around race, take Dr. Giannattasio, a medical educator who answered my question about whether students were instructed on social science by explaining, "Sure. I mean we did one of these exercises where you like all stand up, and then you sit down after the certain qualifiers and you see who's left standing." This exercise prompts students to publicly identify with particular social backgrounds (e.g., sit down if you have never experienced racial discrimination), and then uses it as a springboard for particular discussions around race (e.g., those left standing please share). In this type of session, students with visible social identities, like race, are conscripted into participating, solely due to their membership in that particular social group. At a session I observed at the AAMC annual meeting on Medical Education, panelists shared this same exercise for teaching social science that were equally as premised on conscripting students from diverse backgrounds in participating, calling it the "Standing For" activity. In the same

session, another panelist said that these small groups were a good setting for students to learn this material because "students know more than faculty."

EXPLANATION

The conscripted curriculum is created by educators attempting to address the LCME Standards requiring medical schools to teach about social issues and inequalities. Part of the explanation of the conscripted curriculum has been elaborated in the previous chapter on the symbolic curriculum, as the symbolic curriculum is a necessary precondition for the conscripted curriculum. The field-wide pressure to address health and health care disparities, the existence of the LCME Standards, and the appeal to clinical relevance—the cultural structures of opportunity and constraint—meet a faculty ill-equipped to conceive of a foundational curricular practice. Because faculty lack expertise on these topics but have clinical experience, they decide that the curricular setting most appropriate for this instruction is the Practice of Medicine (POM) course where they can get students to discuss these subjects in small groups. In medical schools, required instruction on gender, culture, race, and any underserved population all get sent to the small group, demoting the epistemological status of social science knowledge relative to biomedical knowledge. These are fateful decisions because they establish a contrast—and a hierarchical one—between what is taught by faculty (aka facts) and what is discussed by students (aka anecdotes).

LCME Standards Driving Inclusion of Social Science

The LCME Standards mandate that medical educators teach students about the manifestations and underpinnings of social inequalities in the first four years of medical school;

otherwise, the medical school risks losing their accreditation. The following standard encapsulate the explicit requirements that medical educators must follow:

> 7.6: The faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process. The medical curriculum includes instruction regarding:
>
> - The manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments.
> - The basic principles of culturally competent health care.
> - The recognition and development of solutions for health care disparities.
> - The importance of meeting the health care needs of medically underserved populations.
> - The development of core professional attributes (e.g., altruism, accountability) needed to provide effective care in a multidimensionally diverse society. (LCME 2018:10).

I asked all of my respondents what this standard meant to them, what they taught on it, and how they taught it. Note the flexibility in interpretation that this standard affords medical educators, that this curricular change occurs often without the intellectual infrastructure to support it. As I described in my introduction, in addition to faculty trained to teach it, another component of intellectual infrastructure is the teaching materials developed by experts. For example, since these requirements give no further elaboration about what kinds of "health care disparities" are recognized nor information on how the importance of "meeting the health care needs of the medically underserved" will be demonstrated, educators whom do not have social scientists on their faculty may be less equipped to know how, precisely, to interpret and teach these topics. Additionally, though race and racism are not explicitly mentioned in these standards like gender and cultural biases are, nearly all of the medical educators in my sample interpreted these LCME standards as requiring them to address race, further showing this ambiguity.

Because the LCME Standards do not specify how to teach social inequalities and the reporting mechanism for evaluating just requires schools to self-report when they teach this content

in the four years of UME and whether they teach it as a stand-alone block or immersive content (see Appendix B), the medical educators also have to decide what about these topics they will cover and what educational materials they will provide for students. Educators create the conscripted curriculum by relegating social scientific discussions about race into the conscripted curriculum, establishing a contrast between biological "facts" from didactic—and tested-upon—material and social "experience" from the lives of students.

While didactic material on race may occur in the lecture setting (Tsai et al. 2016), medical educators more frequently include information about the salience of race in hypothetical cases that students solve and discuss in the small group setting. With mock cases, students practice how they would apply the knowledge they have learned in clinically relevant ways. Jeff, a white student in his fourth year of medical school, described a common scenario that medical students are taught in these cases, whereby a biological understanding of race is given, to give me an example of what they learned about race: "Like for example sarcoidosis. If you ever go to anyone who has gone through med school and you say '30-year old black woman with a cough.' Step One will teach you that that is sarcoidosis. Like that is the answer before you even hear anything. But if you said 30-year old white woman with a cough then they'd be like I have no idea; it could be anything."

Jeff's invocation of "Step One" indicates that the USMLE, or United States Medical Licensing Exam, will expect a future physician to associate the racial group-symptom pairing of "black woman with a cough" with the disease state of "sarcoidosis," a finding consistent with Ripp and Braun's (2017) examination of the USMLE test-question bank and consistent with the fears expressed by social sciences faculty in my sample.[56] Similarly, Jan, a student of color in their

[56] In this body of work, medical educators and students describe curricular content where race is depicted as a biological risk factor or as genetic associations between a racial minority group and a particular disease, and an absence of material on the social understandings of race and discussions of racism (Ripp and Braun 2017; Tsai et al. 2016). Recent work suggests that these curricular decisions could have serious ramifications for patients of color down the

fourth year, said that they "weren't really taught about actual racism but about... you know... a lot of the diseases that are pre-indicative of race," articulating this biological classification of race as if it were another set of facts he had to memorize.

In contrast to educators providing students with biological framings of race's salience, educators do not regularly include lecture- or case-based didactic material where race is defined as social, unless these students attend schools that offer the foundational curriculum on social sciences.[57] Jeremy, a white student in his third year of medical school, felt like his school and profession were "not particularly interested" in discussions of race beyond biological "facts," and that the social understanding of race could be considered absent. He told me,

> We're defining disparities by race so we have to talk about what race is. The idea of defining race as like "a system of oppression based on perceived differences" is not defined. I think medicine is not particularly interested in that... they'll throw out "black people have this, or Hispanic people have this"... essences of race are sort of lumped together and then there's not really a conversation about "well, are these real, scientific distinctions that we're drawing between populations?"

In addition to describing the positivistic presentation of social science in his school's symbolic curriculum, Jeremy contrasted the formal didactic material with the non-existent material, perceptions shared by other medical students who noted that they were often presented content on race as biological, but not presented with content on racism or how race is socially constructed and operative.[58]

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line. For example, Cunningham et al. (2014) shows how clinicians' uncertainty around the meaning and application of race in clinical encounters may lead to errors in medical decision-making, and van Ryn et al. (2011) details how implicit bias influences clinical decision-making to the detriment of racial minorities.

[57] This finding is in opposition to what one social scientist at a top-ranked medical school who teaches this social science approach in a foundational curriculum conveys to all students in her course, which is, "rather than just seeing the patients as biological we need a deeper way to understand their context, we need to actually teach students about the context and become aware of the context."

[58] In addition, the White Coats for Black Lives (WC4BL) group, led by medical students, released a report entitled the "Racial Justice Report Card" which rated ten medical schools on their anti-racism curricula, student support, and faculty development, among other metrics. In their evaluations of the ten medical schools' curricula, they found that the medical schools "did not uniformly provide instruction on the sociopolitical (non-biological) nature of race" (WC4BL 2018:27).

Students reported being given no social science definitions nor data, such as data on how racism gets inscribed on the body or the lived experience of race (Brown 2000; Shim 2014; Williams 2012). In contrast, one social scientist engaged in teaching a foundational curriculum in his institution's *Patients and Populations* course, Dr. Engle, said, that in this "90-hour course that goes over a few years, it includes enhanced mention of, say, racial associations with poor healthcare access, or a lot about the demographics of the HIV epidemic as illustrative of some inequities in health." In this course that has 90 hours of social sciences content, Dr. Engle provides students with knowledge about the patterning of health care access and inequities by race rather than just giving statistics or having students share their experiences with race.

Weak Intellectual Infrastructure

Because the standards do not specify how to teach social inequalities, the medical educators also have to decide what about these topics they will cover and what educational materials they will provide for students. But most medical educators—those with the MD degree in my sample—do not have an in-depth understanding of the social underpinnings and implications of social categories like race. Take, for example, Jan, a fourth-year student of color who described how they were not taught much about "actual racism." And, as Riva mentioned earlier, the faculty are "not usually people who have any particular training in diversity." In fact, because students like Riva think that these faculty need training in diversity rather in the social sciences shows how little her institution has done to fulfill the LCME Standards. Explaining more explicitly is Jeremiah, a fourth-year white student who says that the faculty are "not equipped to teach anthropology or sociology." Many student respondents mentioned off-hand how their faculty either dismissed the relevance of racism outright, got "awkward" around the mentioning of race, or were unable to facilitate a meaningful conversation around the topic.

Sam, a second-year white student recounted this "awkward" memory of when her faculty member tried to facilitate a conversation on social science and culturl competence in their POM small group. Sam told me that the faculty member described a situation: "okay you have a patient who needs to lose weight with diabetes or whatever and you want to go over different foods that they can eat..." Sam recalled that the educator continued: "He goes, 'well you can't just tell them to cut out carbs because they're eating like fajita bread and this is their normal diet... so you have to work with them." Sam felt that the delivery was awkward. She went on to recount another example from this educator's facilitation: "I remember that as one example of the Hispanic population we watched a video and a lady's crying because she can't get enchiladas. You feel awkward for watching." This example from Sam's experience with this faculty member points to the broader issue with medical educators lacking expertise around social science instruction. The educators—and those described by students—in my sample thought that they were engaging with the social sciences with the conscripted curricular practices. As Dr. Mogin, a social sciences educator at a middle-ranked institution, explained to me, it took high-level skills to be about to teach this social science content:

> What we're talking about is sort of taking on one head of the multi-headed monster of racism right. The head of the monster that shows itself in health care and health access and health well-being sector of people in their lives. So at some point we have to have some very tough conversations about power and race and racism impression and to be able to engage in and facilitate those conversations is pretty high level skill, right?

In fact, some educators were aware of this "problem teaching race" and tried to develop faculty around it. For example, Dr. Bennett, a Dean of Diversity and Equity at a top ranked medical school and a former POM course Director, described a 2-hour faculty bias training that she did for the POM faculty. Dr. Bennett gave them a worksheet with 7 social categories on it. Their

instructions were to quickly examine their own biases around these social categories and rate their discomfort with the topic. She recounted:

> And so when we debriefed about that worksheet it was fascinating that everyone skipped over sexual orientation and race. People did not want to have conversations about their own comfort or discomfort around issues of how they view people who are gay, and they didn't want to talk about how they viewed people who were racially different from them. They were really focused on issues of weight. So every person in the room wanted us to constantly talk about their discomfort with obese people.

While she discussed her reasons for why that was problematic in and of itself, she went on to say how she prompted the faculty to get someone to discuss their level of comfort talking about sexual orientation or race. She said that "everyone was like—oh yeah, we're good. They just didn't want to touch it. And I'm a facilitator; I'm not forcing people." When she pushed it further, asking them if they found anything during the worksheet exercise that they were surprised about, she still got no engagement. She concluded, "I was hoping someone would say something. Nah, nobody. They weren't telling. And I had like 75 faculty members there."

If faculty members were not even able to discuss race in a faculty workshop, they were not equipped to discuss race in small groups. What is more, this training demonstrates to faculty members how to conscript people—albeit not effectively. Rather than receive instruction on systematically collected social scientific data about historical and contemporary manifestations of racism, they are prompted to discuss their own feelings and experiences with the subject. At the AAMC annual meetings, I often observed medical educators discussing how at their institution their faculty had "no language to discuss race or LGBT in a sophisticated way." I also experienced some educators struggling with the complexity of social scientific concepts first-hand. At one particular session, where audience members were asked to answer a quiz about what they knew about social sciences concepts with the fellow participants at their table, one educator said that

they had "a hard time with big words" and then another chimed in saying that we should "answer the questions with the test taking skills" we have, like process-of-elimination or marking "B."

Or, as Dr. Grossmith, a social science scholar at a top-ranked medical school explained, "faculty development is something that I don't think we've done as good a job as we need to, and I don't think anybody's done as good as job. There's lots and lots of faculty development in the place of bias but when you suggest talking about scientific knowledge it's a much harder sell. People really love to crucify us so for trying to raise questions about the knowledge base of pulmonary medicine around race—no matter how delicately you try to do, it causes friction." In summary, the lack of faculty expertise around social categories, like race, establishes a situation where the faculty teaching students do not know how to educate them.[59]

POM Small Group

The faculty members in Dr. Bennett's workshop are like many of the medical educators in the Practice of Medicine (POM) sequence, which is the setting in which they decide to teach these social science subjects. The way the POM course is set up is that it is premised on small group learning. Students meet once a week for the first and second years of their medical school training and more infrequently in the remaining years with rotations and residency interviews. Each group has the same 8 to 12 students and 1 to 2 faculty facilitators over the course of UME. In general, the POM small group is a part of the formal curricular structure, reflecting a set of deliberate choices made by educators to teach social science in this forum. As Dr. George, a medical educator at a middle-ranked institution explained to me,

> We talk on racism and ageism and all those other topics we used to do a lot more. Our students were quite culturally aware and that we were doing some over lecture

[59] Further opinion pieces about the silence of educators around race as a topic (Sharma and Kuper 2017:762) and the lack of qualified faculty members to teach about the social determinants of health (Saunders and Braun 2017:51) point to medical educators as untrained and uncertain about how to teach social science.

> but we'd also get into those discussions in our small groups. We have small groups that meet over 2 years. They are more—we purposely mix our groups so we have a mixture of male female and different races, ages. The sessions become—within each group are quite interesting and very—we're getting a lot of different opinions.

Many educators in my sample referred to this space as the "soft" side of medicine, invoking a hard-scientific knowledge vs. soft skills divide.

This course might have a different name depending on the school, but as Dr. Mintz, a Dean of UME at a highly ranked medical school explains:

> Every school has got its own catchy name for what I think is a reasonably similar course. It spans the whole first two years of medical school; it's a half day to a full day a week, every week throughout the first two years. And it's where the students learn the "how to be a doctor" part of medicine. *It's not where they learn the science*; it's not where they learn the physiology, the structure of the human body. It's where they learn who patients are, what they are, how to communicate, how to do a physical exam, the bioethics, the public policy, the culture, racism, palliative care, domestic violence. They're all these topics that are woven into the course. (emphasis mine)

Educators prefer to use the small group setting instead of the lecture setting as the common format for instruction on social science; the small group setting enables the conscripted curriculum because the small group is predicated on student participation. Either the curriculum committee, Dean of UME, or course directors deliberately plan on having students share their experiences in a small group as the central mode of delivery of the curricular content on social science about race.

The idea that "the small group" is an important, state-of-the-art site for pedagogical practice can be seen in a statement from Dr. Krebs, a course director of the POM sequence at a middle-ranked medical school, who thought that her school was "behind the curve in terms of medical education and having an active engaged small-group curriculum." The notion that the small group was the more effective learning modality and "a lot better than a lecture" was echoed by other medical educators who strived to have more instruction time in a small group setting rather than in a lecture setting for the POM course. Some schools would not require lecture

attendance but require small group attendance. Others would have a little lecture, as Dr. Tortora, another course director of POM at a middle-ranked medical school, proudly stated their ratio of time as "some lecture, but that's probably less than 20%, easily, of our course. The vast majority of it is small group based." When I asked Dr. Harrison, a philosopher who works in the POM sequence at his middle-ranked institution, to elaborate on the structure of the course, he said,

> The goal is one required article and one not required article; oftentimes a few more not required articles will leak in because whoever is leading the session will be very excited about it, that's why they're leading the session. There will be some kind of presentation. I would say right now 70% of the time it's a lecture ranging between 35 minutes and an hour and 15 minutes; probably a mean of 45-50 minutes. Sometimes there will be a panel instead of just a straight lecture. After whatever the didactic portion of the session there is at least an hour of small groups. In the small groups it's the same group of students for the entire phase. There will be two facilitators, usually one clinical and one non-clinical; so it can be a nurse and a physician or a philosopher and a physician. We're there to correct mistakes, act as an organizing force to answer questions. I've been with other people that very much just want to go over the syllabus in order. There's always sort of a guide and so it's like cover these cases, answer these questions, have an open conversation about these things. And some people just want to follow that sort of diligently. I don't think the students get sort of a uniform experience across their small group.

Dr. Harrison points out how the POM small group structure builds variation into their professionalization process, because there is flexibility in how the facilitators choose to approach it. While the time dedicated to lecture and small group varies by school, medical educators overwhelmingly pointed to the small group as the desired environment for the instruction on social inequalities like race.[60]

Crucially, for the explanatory context of creating the conscripted curriculum, the POM small group is where medical educators appear to dump all of what they perceive to be not science, as Dr. Glynn describes: "everything from health disparities to doctor-patient communication to…

[60] In contrast to the foundational curriculum, where, as Dr. Dema, a sociologist at a top-ranked medical school told me, he will lecture students on "race ethnicity in the bio-cultural" where students will learn "a critical analysis of race as a category, like how it is used in research, what is it, is it just a risk factor, etc.?" They also do the "same thing with gender identity and gender expression."

let's see stereotypes, special populations, effective communication, and cultural issues." As medical student Jackie explains in more detail,

> We had—what was it called now? It was one course that we had that met every Wednesday for all 4 years essentially, but more so for the first two years it was definitely every Wednesday and then it was a little more lax after that because the same group of about 12 students per doc. And it was supposed to teach you more so the *softer side of medicine*, the ethical stuff and also physical exam skills and things like that, so that was *something that was not science related* that we had throughout. And it was nice because it was with the same group of 12 students. We got very familiar with each other and we had the same preceptor which he kind of watched us grow. (emphasis mine)

As Jackie recalls, the POM small group was "not science related" a point which another student Nina made, in noting that it was structurally distinct from their block scheduling of courses, their core courses, where they would learn the foundational knowledge:

> We were on a block scheduling, so we would do only one course at a time. Then once a week we were divided up into small groups that those small groups stayed the same throughout all four years. In those small groups, we would get together for two hours with two faculty position mentors whatever you want to call them. We had different topics each week sometimes it would be on insurance, or it might be on LGBT, ethics, just different topics that we might find like difficult to deal with. They were still kind of indirectly related to medicine, but they might not have been straight-up pancreatitis or something directly medical.

Nina's point is that the material in the POM small group is indirectly related to medicine. But for the medical educators in my sample, they thought that the POM small group was pedagogically-appropriate place for students to learn about these social topics. In the course of Dr. Mintz's description of the purpose of their POM course, she explained how drawing upon personal experience was a pivotal dimension to the learning process, "because what we're trying to do is help the students understand these people who will become their patients… in small group we spend a lot of time exploring in depth what they've experienced themselves personally."

These choices are undergirded by the belief that students learn from one another, as a team. Dr. Callaghan, a curriculum developer and course director at a top-ranked medical school

explained that "the students themselves really learn from each other. That's one of the things we try to emphasize in the small groups is that we're in it together as a team, learning." According to the medical educators, this intimate, team-like structure of the small group is what makes it so beneficial for student learning. With frequent and consistent meetings of the same 8 to 12 students and 1 to 2 faculty facilitators per group over the course of UME, medical educators expressed their impression that the small group provides a place for students to talk about possibly divisive or sensitive topics in a supportive environment. When I asked my interviewees when, in the course of their training, students learned about LCME Standards 7.6, Dr. Stephens responded that students learn:

> More in small groups. There are some lectures but by design we try to put topics that require honest discussion and that are potentially problematic in our Practice of Medicine groups where there's continuity in the group for two years and continuity in the preceptor. And the idea being that in these groups they get to know each other, they're very tight, and people will be less afraid to take controversial positions where they know these are their friends and they're going to like them anyway. We feel it's a more honest and more supportive environment.

Therefore, medical educators choose to teach the social science topics, like race, within the small group, with the justification being that the small group provides a learning environment which students perceive to be less judgmental and more supportive.

In contrast to the lecture setting, as Dr. Kerns put it, small groups, "are about as safe a space as you can get." With the decision to teach social topics in the small group over lecture, educators explicitly elect to involve their students in teaching each other, a hallmark feature of the conscripted curriculum. A practical limitation of the conscripted curriculum is that if this is the central modality for learning about social sciences, then small groups will vary according to the individuals that comprise each small group; there is no systematic approach. According to Kenneth, a white medical student in his second-year, the conscripted curriculum strategy makes

the instruction like the "Wild West," where "the onus is incredibly put on the person—like on the individual as opposed to the system pushing that forward."

In summary, students are conscripted to teach each other about race by drawing upon their experiences as members of particular social groups because these curricular requirements are enacted in a setting where faculty lack the intellectual infrastructure to support a foundational curriculum and they believe in the pedagogical power of the instruction on these social science topics in the POM small group.

IMPACT

By creating the conscripted curriculum, educators aim to incorporate social understandings of race into UME and thus address educational requirements that were established in an attempt to make healthcare more equitable. However, in practice, the creation of the conscripted curriculum perpetuates racial inequalities by placing an additional burden on students of color and further marginalizing social scientific understandings on topics like race. There are two major impacts on students which are, in fact, linked. One is on student learning in general. The majority of student respondents informed me that their institution does not signal to them that understanding how race and racism impact their patients' or peers' lives is an important area to master. In fact, many students laughed when I asked if they were taught about racism's effects on patients because they were certain that they had not been taught anything of the sort. The second impact is that, because students of color are often the workhorses of this type of instruction, they end up having more work than their peers and more emotional exhaustion. Moreover, in the context in which the conscripted curriculum is devalued relative to other curricula, students of color end up doing work that is rendered futile, furthering their disillusionment.

Impact on Student Learning

The educators' use of the conscripted curriculum has implications beyond the students it directly disadvantages because the use of the conscripted curriculum devalues the lessons about the social underpinnings of race. In general, students reported that they simply received little learning about social inequalities, as Scott, a third-year student of color explains: "If you ask the question was [race] taught in any way that was even mildly effective, the answer is a resounding 'No.' The fact is that it really didn't exist. So not just in terms of effectiveness of didactic material. Just sheer quantity it's not really there. It's not emphasized."

The way in which the conscripted curriculum is established creates these conditions. In other words, the conscripted curriculum is premised on the presence of people whose social identities confer a particular form of experientially based expertise. This is in contrast to the presentation of factual knowledge throughout the rest of the curriculum, which is uniformly provided by faculty. With faculty-presented information, educators and students alike noted that that was what medical students really needed to know. As Chris, a third-year white student explained in relation to the social science about race, "it's just not what we are there for… we spend two years learning basic science and when you spend most of your day learning about pharmacology and pathology and physiology that all of a sudden the social seems less relevant… it's not on the test that's coming up. It's a life skill but it's not a medical school skill, one you have to learn to get an A on the test."

The fact that students are largely the teachers in the conscripted curriculum signals the relative unimportance of social understandings of race in the context of a medical school where students learn to prioritize material on the exam taught by faculty. As Anna, a second-year white student indicated, "it's hard because your time is limited, because at the end of the day it doesn't

matter if you understand how race is important for medicine or if you were involved with the urban underserved… you still have to get good grades, you have all these tests you have to do well on."

Again, these lessons they learn about the importance of race come from their faculty. For example, when I asked a Dean of Medical Education at another top-ranked institution, Dr. Capraro, what they taught on race or racism, he explained that they did "not have so much on racism," because "there are a lot of courses on those types of things at our University given by departments that have far greater expertise than anyone at the Medical School." Dr. Capraro continued, explaining to me that as medical educators, their "focus in [their] curriculum tends to be on identifying those things that every medical student should know… there are elements that could probably make them a better physician, but, they aren't essential for every physician."

As Lindsay, a third-year medical student of color, articulated when she pointed to the broader significance of why student-led sessions are perceived as less important: the medical school "would never ask students to teach anatomy even if there was a change that needed to be made. Even if they were really great students, they would hire somebody whose job it is to examine and teach that." Anatomy, deemed important, is taught by faculty; whereas social inequalities are considered "not essential for every physician." Lindsay points to how the way in which a medical school builds its intellectual infrastructure thus directly effects students of color in that if a school lacks an expert or trained faculty, then they might conscript students to do this curricular development and faculty training work.

Impact on Students of Color

There is also the impact on students of color. At the outset, this reliance on student participation to discuss social inequalities does not—in and of itself—have to reproduce social inequalities. However, as I described above, often within the same explanation of the benefits that

the small group bestowed upon students regarding the instruction of race, medical educators pointed to the demographic composition of their student body within these small groups. Therefore, in effect, I found that educators were more likely to conscript students of color in the instruction of race, and that these students of color felt unfairly burdened by this work.

As a result of having to be the conscripted curriculum at a greater frequency, students of color described experiences that added to their workload and emotional burden. Earlier in the chapter, we met Marian, who explained how the conscripted curriculum operates. As she described being the conscripted curriculum to me, it became clear that what was most bothersome to her was not only what she had to do, but how it made her feel. "It has been a lot. I spent a lot of time in my first year trying to educate people, students and faculty alike, and it's so exhausting to have to do that… it's so exhausting I feel like, it's not my role to educate you—you can use Google."

As Marian's account suggests, the numerical rarity of students of color in medical school leads to the fact that students of color are often the only student of their underrepresented background to share their experiences. This can be isolating, as Mark also pointed out how his friends of color were upset that they had to carry this burden, noting that his "school is not like—well med school in general is very homogenous—there is not a lot of diversity." In addition to isolation, the conscripted curriculum also made Marian experience exhaustion—a common experience among many of the students of color I interviewed. Her invocation that students and faculty could "use Google" points to her frustration in having to bear the instructor's burden in her small group. Robyn, a white student in their third year, recounted a memory of a student who felt like their medical school did not even consider that someone like them could be a doctor. As she recalled: "We have one small group scenario on like a black patient who wants to see a black doctor, which I think is a great exercise for the white students to think about 'how do I do this,'

but not particularly inclusive of black students who are like 'this assignment is not written with me in mind as a student, like you were discounting my presence here.'"

Many students had taken their concern with the curriculum to the faculty or dean to reform the way that race was taught. Students of color described mixed receptions from faculty when they addressed their concerns; while some students of color were met with reprimand, other students of color encountered different types of opportunities for change.[61] Crucially, though, the students of color painted a less-positive narrative of how much of an "opportunity" they were being given by their medical educators, often describing how while they had a platform to bring matters to their superiors, it was often an empty platform without any tangible change. For example, Scott, a student of color in his fourth year, explained, when I asked if their medical school had any institutional policies in place to implement change: "So the very first lecture of first year it was all 'race is a biological' and even some talk of 'one drop theory'. At the end of that lecture, I sent a very strongly worded email to the professor and brought it up with the dean. I was real disappointed when the next year the same thing happened."

While Scott has the "opportunity" to voice his concerns and had many discussions as a part of this opportunity, ultimately, the curriculum remained unchanged. Lindsay, a student of color who felt that she was actually quite "lucky" to be at her institution, echoed this impression that these formal channels for resistance are purely perfunctory:

[61] Faculty, however, might learn from their students. Dr. George, a medical educator in charge to the Practice of Medicine sequence at their institution recounted this experience with students of color that made her and her colleagues re-think how they captured race in their didactic materials: "And as an offshoot of that, I am involved in various curricular activities and currently chairing a taskforce on race in the medical school. That just started about four months ago and it was triggered by two students, both students of color saying, we have been disturbed by our first year of medical school where we've been learning things that we feel implicit biases involved in them. For instance, we are being taught that a healthy child is one that—there is a scoring criterion for a healthy child and one of the checkmarks asks, 'is the baby pink?' And another—in anatomy we are taught that healthy gums are bright and pink. So what does this say about communities of color, are they called unhealthy? There's a lot that we are not aware of so we're embarking on a deep dive of our own curriculum and our own language that we use and the way that we interact thinking about bias."

> Frankly in medical school, students are so transient. You come in, you don't really know what's going on, by the time you do, you only have a year left. Its both really, really lovely and also simultaneously disheartening to see that every year students come in with the same calls, with the same critiques, with the same efforts and writing and proposals and meetings literally year by year by year and we share them and they're identical...I think beyond that is I suppose we're really lucky that the biggest opposition that we face is apathy or lack of urgency whereas talking to medical students and people from other schools, they're more of explicitly shut down or discouraged.

For students of color, the opportunities to resist their institution's reification of racial inequality are inseparable from the costs. As Scott and Lindsay detail, the opportunities given to them both emanate from and contribute to reminders that the majority of their white educators and peers do not care about teaching the social sciences and remained unbothered by the racial inequity; however, as Lindsay notes, a silver lining is realizing how there are other students who care as much as she does about changing the way the medical schools teach about race. Students confront indifference from administration, faculty, and students regarding systemic racism, problematic presentations of race, an exhausting need to explain things, and the onus of improving the current curriculum being placed on them.

Even worse, after students of color do more intellectual and emotional labor, their efforts are not valued. For example, Lisa, a fourth-year student of color, explained a situation to me when she got in trouble for raising concerns about the way they were talking about race in the POM small group. As she recounted, "I got some shit from one of my facilitators... they're like "oh, well, your activism is getting in the way of your studies." Lisa's frustration and disillusionment were palpable, as she continued: "Well maybe you mother fuckers should like do something about what I'm saying then I wouldn't have to do anything I could just pay attention." Lisa's story shows that the impact on student learning and students of color has a feedback loop, doubly burdening students of color. Lisa is doing the work to participate in conversations about race—as she is asked

to do. Yet when she does so in a way that might force more critical attention to the topic, it is brushed aside as activism and depicted as interfering with her *real* studies, further reinforcing the epistemic values of the medical profession. Moreover, her final exasperated remark about how if the faculty would just do their jobs and teach the social science on race for healthcare, then she "wouldn't have to do anything," she could "just pay attention," is telling of the broader situation in which the faculty have not assumed responsibility for this instruction.

CONCLUSION

Similar to the symbolic curriculum, the conscripted curriculum emerges from the combined forces of good intentions implementing the LCME Standards, weak intellectual infrastructure, and the definition of the social sciences as non-science by placing them within the POM small groups. Even when students brought up the shortcomings of the social scientific knowledge they were receiving, the educators still kept the instruction on these social sciences topics in the POM small group. In this chapter, I have shown how medical educators devolve the instruction on social understandings of race onto students and how these decisions have consequences for students of color and the valuation of social science. Educators engage in this devolution of responsibility by prioritizing the small group as the main curricular space devoted to the instruction of social science and relying on students to share their personal experiences with race—often because the faculty lack the intellectual knowhow to effectively teach about race. These educators' decisions create what I call the *conscripted curriculum*, when students are placed into positions of instruction by virtue of their lived experiences as members of particular social groups.

Chapter 6, in part, is a reprint of the material as it appears in *Journal of Health and Social Behavior* 60(1):55-68. The dissertation author was the sole investigator and author of this paper.

CHAPTER 7: CONCLUSION

Imagine you are a first-year medical student. While you have just begun at this top-ranked medical school, you embarked upon this professionalization process years ago. From coursework to the research bench to shadowing doctors to community service to the MCAT, you have been working hard for years to get to this point. You cannot wait to join this anointed group. So many of your peers, your friends even, failed. They could not memorize all the material, could not do well enough on the tests. They could not juggle all of the activities. You could, but part of you wonders if you are smart enough for all of this. Some of the people you met during interviews were so intelligent, so multi-faceted, so driven. Some had published their clinical research; others had been successful organizers in their communities. You guess that everything happens for a reason. It is not a mistake that you were admitted, right? As you look over your schedule you are intimidated by the sheer pace of instruction. Why did they condense 24 months into 18 months? You are wondering what all you will be accountable for knowing. You hear students *already* discussing residency and you are in Year 1.

When I interviewed medical students about their experiences with their Undergraduate Medical Education (UME) curriculum, many of them sketched this picture of being overwhelmed about what they needed to know and what their future entailed. I began this concluding chapter with this narrative to emphasize that medical students enter the UME phase of their education as impressionable students ready to learn and perform. Therefore, when educators make decisions about what and when they will teach, and how they will hold students accountable for the material, these decisions shape what students think are the essential building blocks of an ideal physician. The curricular practices the educators engage in will pattern what students think is core knowledge

and what are superfluous skills. With the foundational curriculum, we know that a comprehensive inclusion of the humanities and social sciences to achieve the ideal physician is an attainable goal. However, as I have shown in the chapters on the therapeutic, symbolic, and conscripted curricula, most medical educators end up including the social sciences and humanities into their UME curriculum in ways that do not meet the articulated goals of their inclusion in the first place. In other words, when educators enact the therapeutic, symbolic, and conscripted curricula, students do not report learning how to be more humanistic, humble, curious, compassionate, empathic, and aware of social issues; in fact, they report feeling like the instruction on the humanities and social sciences as largely meaningless.

In this conclusion, I will first summarize the findings from this dissertation. Then, I will place these findings in broader discussions within the sociological subfields of medicine, knowledge, and education. I review how my work contributes to debates over socialization of medical students, clinical relevance and the valuation of knowledge, and identity taxation in institutions of higher education. Next, I will discuss some of the limitations of the study and future directions of research. I will conclude by outlining a few policy recommendations for UME medical educators in the United States.

SUMMARY OF FINDINGS

In this dissertation, I report findings based upon on data I gathered about the incorporation of the humanities and social sciences in contemporary U.S. medical education: in-depth interview data with a sample of medical students, medical educators from biomedical backgrounds, and medical educators from humanities and social sciences backgrounds; curricular and institutional data from all 137 MD-granting institutions; and observational data from scientific and pedagogical

meetings of the national organization governing medical education: the Association of American Medical Colleges (AAMC). While I inductively generated the four curricular incorporation strategies—foundational, therapeutic, symbolic, and conscripted—from my interview data with respondents from 37 medical schools, I then transformed these inductively-generated codes into a simple deductive coding scheme to identify the curricular trends in the comprehensive set of curricular data. I used the institutional data from each medical school to concentrate on similarities in organizational contexts that would help explain why some schools enact the foundational curriculum while the majority do not; I also analyzed the accounts provided by students and educators to craft this explanation.

Description of Curricular Practices

I found four strategies of curricular incorporation. The first strategy, the foundational curriculum, is enacted at only 14 of 137 medical schools. This curricular practice entails the instruction of the humanities and social sciences as essential, core knowledge; all medical students are required to learn this material in either an immersive or embedded setting. When the humanities are taught as a foundational curricular practice, students learn a systematic and critical approach to reading, writing, questioning, listening, and observing; the humanities are foundational to future clinical practice in their contribution to conceptual and decision-making processes. When the social sciences are taught as a foundational curricular practice, students learn a systematic and critical body of knowledge replete with concepts about structures of inequality and understandings of illness; the social sciences are foundational to future clinical practice in the way that they expand a potentially myopic focus on the biological to consider the social factors presented in a case and challenge physicians to question the status quo.

The second strategy of incorporation is the therapeutic curriculum. The therapeutic curriculum entails the offering of the humanities as electives or extracurricular options for students on a voluntary basis. Educators tend to instrumentalize the humanities and students conceptualize the humanities as a break from the rest of the stressful, science-intensive UME curriculum. My curricular data shows that 113 of 137 medical schools only include the humanities in this optional format; however, it is not detailed and comprehensive enough to allow me to claim that 113 schools enact the therapeutic curriculum. The third strategy of incorporation is the symbolic curriculum, which is the bare minimum inclusion of the social sciences in fulfillment of the Liaison Committee on Medical Education (LCME) Standards. Most medical educators use the symbolic curricular practice—127 of 137 schools use it—and educators either teach limited social sciences content in a week-long intersession, signaling its unimportance relative to the rest of the curriculum, or they place the social sciences content in the Practice of Medicine (POM) course, relegating the social sciences instruction to the domain of "skills" rather than "knowledge."

Finally, the last strategy of incorporation is the conscripted curriculum, where educators devolve the instruction on these social sciences topics to their students in the POM small groups. While my interview data is the basis for my claim about the conscripted curriculum, 104 of 137 schools have the conditions for the conscripted curriculum, in that they only teach the social sciences in the POM small group setting. The central content comprising the conscripted curriculum are the personal experiences that students share about themselves as members of particular social groups. With both the symbolic curriculum and the conscripted curriculum, the social sciences are reduced or devalued.

These four strategies of incorporation are not all mutually exclusive. It is possible for medical schools to enact the therapeutic, symbolic, and conscripted curriculum in their UME, and,

in cases where schools enact the foundational curriculum in the humanities, it is possible for them to also have the symbolic and conscripted curricula with regard to the social sciences. In that same vein, in cases where schools enact the foundational curriculum in the social sciences, it is also possible that they have the therapeutic curriculum with regard to the humanities.

Explanation of Curricular Practices

The foundational curriculum constitutes a curricular incorporation strategy that shows that the humanities and social sciences can be incorporated into medical education in a way that preserves the integrity of some of these disciplines' more critical and interpretive epistemological commitments. Educators are able to achieve the foundational curriculum because they have the funding, time, and expertise to erect the intellectual infrastructure to support the immersive or embedded integration of the humanities or social sciences into their school's UME curriculum. Moreover, the educators at these schools also see the humanities and social sciences as part of their institutional brand and strategically leverage the appeal of clinical relevance to implement the foundational curriculum, resisting the epistemic constraints that some of these field-wide pressures exert. As leaders in the medical education field, these top-ranked schools that have the foundational curriculum set the pace for other schools within the field; however, most medical educators do not enact the foundational curriculum, for both epistemic and organizational reasons.

For example, as my chapter on the therapeutic curriculum shows, most medical educators who wish to incorporate the humanities recognize the trendiness of the humanities in UME curriculum. Educators at middle-ranked institutions want to be able to teach more humanities but do not know when they can find they time, nor do they know who could teach these courses. In addition, the existence of the burnout crisis serves as an excellent opportunity for them to include

more humanities in their curriculum; however, by hitching their cart to the burnout crisis horse, medical educators end up constraining the expansive nature of the humanities. Instead of creating a foundational curriculum, they end up with the therapeutic curriculum, precisely because they ultimately fail to interpret the humanities as anything more than a cathartic break for students.

In a similar process, my chapter on the symbolic curriculum demonstrates how the compelling problem of health and health care disparities and the appeal of clinical relevance—if not met with the true experts and resources an intellectual infrastructure provides—serves as an opportunity to include content on the social sciences but in a very limited fashion. The appeal of clinical relevance serves as an epistemic constraint; educators see the clinical relevance of the social sciences, but either only as positivistic sets of facts consistent with their biomedical knowledge or as skills. The weak intellectual infrastructure at these institutions further confines the contribution of the social sciences, because they lack faculty to advocate for the critical and interpretive social sciences as foundational knowledge, essential to the practice of medicine.

The chapter on the conscripted curriculum shows how weak intellectual infrastructure has implications for not only student learning but also students themselves. Faculty interpretation and lack of expertise are decisive factors in how the social sciences are incorporated specifically to teach the social science on race. To social scientists, the conscripted curriculum comes across as a puzzling interpretation of how to teach the social sciences; however, the clinical faculty believe that the small group is a cutting-edge pedagogical practice and that students' lived experiences are proxies for social scientific data. Just as with the therapeutic and symbolic curriculum, the epistemic and organizational constraints of ambiguous LCME Standards, lack of intellectual infrastructure, and the small group instructional format, pattern the conditions from which the conscripted curriculum emerges.

Impacts of Curricular Practices

As I depicted in the previous empirical chapters, these four curricular incorporation strategies have implications for students, faculty, and bodies of knowledge. Students, in general, reported that they viewed the social sciences and humanities as fundamental to their future clinical careers when they were required to participate in the foundational curriculum. Most students exposed to the therapeutic, symbolic, and conscripted curricula described how meaningless they felt these curricula were for their future practice; students also depicted the therapeutic curriculum as stress-relieving, precisely because it was *not* science. Students who took the therapeutic and conscripted curricula discussed how they did not like that the responsibility of instruction was placed upon their shoulders, and students who were more frequently conscripted-as-curriculum, that is, students of color, felt burdened by this extra work. Finally, it is important to place the therapeutic and conscripted curricula in conversation, because these efforts at telling students to focus on their wellbeing seem to run counter to other efforts telling students that their work is "activism."

Humanities and social sciences faculty who enacted the foundational curriculum felt a heightened sense of pressure to do an excellent job in teaching this critical and interpretive material. The administrative practices built up around the curriculum further reinforce the valuation of biomedicine over the humanities and social sciences. As Dr. Mayberry, a humanities scholar who teaches at a middle-ranked medical school, described, "everything in medical education now has to be evidence based, but nobody is asking bio-chem to prove itself, to prove its relevance. I actually don't think that bio-chem matters one hoot in terms of practice." Moreover, humanities and social sciences faculty at institutions that did not engage in foundational curricular practices felt tensions over how they were incorporating the humanities and social sciences with

the therapeutic or symbolic curriculum. With the therapeutic and symbolic curricular practices, both the humanities and social sciences, as bodies of knowledge, were reduced to instrumentalized or positivistic versions of what are otherwise critical and interpretive fields of knowledge. With these findings in mind, I will consider how these impacts are consequential for broader empirical and theoretical discussions in the next section.

BROADER DISCUSSION

The findings of this study fill an empirical gap in medical sociology by illuminating the understudied phenomenon of the inclusion of the humanities and social sciences into medical education. This empirical contribution, in and of itself, is important, as the incorporation of these subjects is depicted as pivotal to improving patient care in more humane and equitable directions. This work also has implications for theory, allowing me to contribute to three debates at the nexus of the sociological subfields of medicine, knowledge, and education. First, my comparative study allows me to illuminate the heterogenous socialization of medical students in the U.S., challenging the foundational understandings of the standardization of the medical profession. Second, my work contributes to discussions about the way in which the humanities and social sciences are valued. Third, my findings about students contributes to studies across institutions of education about how people from marginalized backgrounds, in my case, students of color, are subject to identity taxation. I will discuss each contribution in turn.

Socialization of Medical Students

As the opening description of a composite medical student suggests, UME is just one part of a long journey medical students embark upon on the route to becoming practicing physicians.

In fact, this taps into the historical debate about how, where, and when students learn to become physicians in the first place: are they taught through the formal UME curriculum, through the informal role-modeling during residency, or are the desired characteristics already embedded in students before matriculation? My work and further evidence from scholars' work are suggestive that the medical school does indeed matter and can shape both career trajectories and attitudes of medical students; however, the second and third camps on this debate certainly could be areas for further research, which I will address in the subsequent section.

Regarding the first position, which affirms the pedagogical function of the medical school, sociologists have revealed the power of the medical school's curriculum in reflecting the current values and practices of the medical profession, as well as shaping the emotional, moral, and technical lives of its initiates (Becker et al. 1961; Bosk 1979; Fox 1957; Hafferty 1998; Merton, Reader and Kendall 1957; Murphy 2014; Vinson 2016). To be clear, Merton et al. (1957) and Becker et al. (1961) did not just describe the first position of this debate. For example, Becker et al. (1961) drew attention to the interactive process and peer culture by which medical students learned to identify the collective understandings of what was important to know going forward.

And, in their seminal piece on medical socialization, or the process by which medical students learn the knowledge, skills, attitudes, and values comprising the role of the physician, Merton and colleagues (1957) delineated two processes of role acquisition, which point to the first two positions in this debate about the socialization of medical students. The first process was formal instruction, where students learn directly from educators' didactic teaching; the second was informal instruction, where students indirectly identify the normative attitudes, skills, and attitudes percolating in their educational environment. In fact, an entire corpus of work on the second position of this debate about socialization in medicine has taken Merton's following claim as a

point of departure: "It is clear that not all which is taught in medical school is actually learned by students and that not all which is learned is taught there, if by teaching is meant didactic forms of instruction." (Merton et al. 1957:41-42).

Produced during the Golden Age of Doctoring with physicians at the height of their autonomy (McKinlay and Marceau 2002), the seminal texts *The Student Physician* (Merton et al. 1957) and *Boys in White* (Becker et al. 1961) focused on the value formation and socialization processes that shaped future doctors.[62] These foundational arguments within medical sociology posit the medical profession as subject to homogeneous socialization processes (cf. Becker et al. 1961; Merton et al. 1957). These studies tend to depict medical socialization and professionalization processes as homogenous for every medical student. We can explain this assumed homogeneity along theoretical, methodological, and historical lines. First, the promise of homogeneity is part and parcel to medicine's status as a profession. Whether through the standardization of the educational requirements and credentialing (Starr 1982) or acquisition of technical autonomy and expert knowledge around a specific set of tasks and problems (Abbott 1988; Freidson 1970), the educational process is pivotal to both the construction and understanding of the medical profession's claim to legitimacy. Second, as Jenkins (2018) has noted, accounts of the medical profession have depicted a homogenous socialization process because of the centrality of ethnographic methods in the studies of medical education. Many of the foundational studies within the sociology of medical education abstract from a case study of a single school.

[62] These studies were largely uncritical of the medical profession, its relationship to patients and the structure of the healthcare system (Light 1988). As more recent generations of medical sociologists focused on the major structural shifts affecting the context of health care delivery, they identified the competing values in the context of medical education (Light 1988). Students have many sources of knowledge about how to become and what it means to be a medical doctor (Light 1988; Vinson 2016), from the classroom (lectures, small groups, standardized patient exercises), to the clinic (patients, experiences; lab results), to research (laboratory techniques, collaborators), to the community (other professions, community members).

The final limitation of this body of work is that scholars have assumed that *professional* identity was more salient than *social* identity in the training of medical students. At the time that Merton et al. (1957) and Becker et al. (1961) were publishing their data, the medical profession was overwhelmingly white (97%) and male (91%), perhaps leading the scholars to perceive social identities as irrelevant. In challenging this assumed homogeneity, recent scholarship on the medical profession has begun to consider variation in professionalization according to social status or identity (Underman and Hirshfield 2016), prestige of institution (Jenkins 2018; Menchik 2017), or gender (Kellogg 2011; Underman 2015). Comparative studies of residency programs have shown that the site of training, itself, is critical for conceptualizing student training (Jenkins 2018; Kellogg 2011; Menchik 2017). For example, Kellogg (2011) shows how advocates of surgical interns' hours reform stemmed from a diverse group of interns with marginalized or alternative social identities. This diverse group of women, other-specialty interns, egalitarian men, and men dedicated to their family were more likely to support the hours-reform precisely because their social identities were not valued in the traditional organizational culture.

In recent studies of professionalization, scholars have shown that the definition and institutionalization of the standardized concepts of "professionalism" and "professional identity" are embedded in specific social and cultural contexts—along academic, administrative, clinician, and specialty lines—which impose disparate visions of appropriate professional behavior (Martinussen and Magnussen 2011).[63] While scholars like Hafferty and Castellani (2009) have

[63] Some sociologists question whether "professional identity" is something that is cultivated at all, examining how the construction of "professionalism" is a way in which the medical profession maintains its professional dominance (Albert et al. 2015; Martiamianakis et al. 2015). While this analysis is limited to data collected from a single school, this critique is consistent with other scholars' arguments that the central function of new curriculum is for public relations (Bloom 1988; Wegar 1992).

drawn attention to the co-existence of multiple professionalisms (e.g., entrepreneurial, altruistic, activist), they fail to explain *how* students reach a specific type of professional identity.

In line with this body of work, I show that where a student attends medical school could matter a great deal in how they learn to become a physician. By drawing attention to the curricular practices that shape how students value the social sciences and humanities for clinical practice, my work contributes to this discussion about how professionalization processes vary from school to school. As my four empirical chapters suggest, there is variation from school to school, when educators at these institutions choose to include the humanities as the foundational or therapeutic curriculum, or incorporate the social sciences as the foundational, symbolic, or conscripted curriculum. And, when educators use the therapeutic or conscripted curriculum, they end up establishing an inherently heterogenous professionalization process within their school. With the therapeutic curriculum, in asking students to voluntarily take these courses, students experience this curriculum at their own prompting; with the conscripted curriculum, in relying on students to share their personal experiences, these experiences by definition will be unique and will vary from student to student, small group to small group, and year to year.

Clinical Relevance as a Structure of Opportunity and Constraint

The notion of the therapeutic benefits of the humanities—sometimes referred to as bibliotherapy when literature is concerned—is not altogether new. The conceptualization of the humanities as providing intrinsic benefits date back to Aristotle, who thought that the humanities allowed for individuals to explore the human condition. Poetry's therapeutic benefits were famously articulated by John Stuart Mill when he happened upon some poetry amidst an existential crisis as a young utilitarian. However, although the intrinsic value of the humanities has been

touted time and again, these enumerations have often been part of a far more multifaceted conceptualization of the humanities then simply as stress-reducing leisure.[64] The degree to which the humanities have become instrumentalized—and commodified[65]—within the field of health care challenges some of our understandings about how the humanities and biomedical disciplines relate.

Recent research on the relationships between biomedical and humanistic scholars depict a relationship filled with tension, inequity, and even hostility (Fitzgerald et al. 2014; Rabinow and Bennett 2012). In their work with molecular biologists, cultural anthropologists Rabinow and Bennett (2012) found that despite their conversational expertise and eagerness to learn more about molecular biology, "no reciprocity emerged, nor was it encouraged" from their colleagues. Describing the failure of their collaborative endeavors, Rabinow and Bennett (2012) explain that they did not sacrifice the frankness of their speech; in contrast, sociologist Fitzgerald and colleagues (2014:716) noted that they practiced "reticent politesse" with their biomedical collaborators, refraining to speak out and living with the feelings of discomfort and uncertainty in order to help the collaboration occur more successfully.

[64] From Sir Philip Sidney, writing circa 1580, in *The Defense of Poesy,* painting the intrinsic value of the humanities as that which "preserves and transmits the past and its achievements, both intellectual and artistic to the present… teaches and delights… strengthens virtue and morals" (cited in Rylance 2010:60), to former U.S. President Barack Obama, quoted in the *New York Times* Review of Books in 2015, who said that literature teaches one "to be comfortable that the world is complicated… that it is possible to connect with someone else even though they are different from you," the intrinsic value of the humanities extends beyond the therapeutic benefits detailed in this dissertation chapter on the therapeutic curriculum.

[65] Counter to Rabinow and Bennett (2012) and Benneworth and Jongbloed (2010), it is clear the humanities have been and can be commodified. For example, recent books like "Compassionomics: The Revolutionary Scientific Evidence that Caring Makes a Difference" directly link up the relationship between using the humanities to improve the health care corporation's bottom line (Trzeciak and Mazzarelli 2019). Partners Healthcare in Massachussetts, in conjunction with Massachussetts General Hospital and Harvard University, has pioneered a proprietary product predicated on the instruction of humanities, called Empathetics, LLC. With a propriety set of training modules, medical schools and hospitals can pay so their students and physicians can learn E.M.P.A.T.H.Y™ so that they can "reduce clinician burnout: Communicating empathically increases clinician job satisfaction and reduces burnout. Enhanced empathic care and physician well-being are highly correlated" (Riess and Neporent 2018).

Structurally, the marginal quantity of humanities and social sciences researchers in interdisciplinary settings, which could be described as a weak intellectual infrastructure, the mandated mode of collaboration of ELSI programming[66] or the LCME Standards, and the hierarchy of epistemic power in an institutional setting all combine to place the humanities and social sciences at a relative disadvantage in interdisciplinary collaborations with biomedical colleagues. For example, as the lone social scientist in a nanotechnology lab, Viseu (2015) described her participation as tokenized. And, in their description of the ELSI program, Balmer et al. (2015) argue that the setup of the program includes humanistic and interpretive knowledge and experts as an afterthought because it keeps "science" and "society" as separate. For example, humanities and social sciences often play the role of providing a "neuro reality check" in stem cell research (Choudhury and Slaby 2011).

Culturally, the way in which the humanities and social sciences are conceived as non-commodifiable, less objective, less accountable, further impacts its likelihood of being on equal epistemological footing as biomedical knowledge. Whether devalued for being unable to produce workers who will contribute to the technoscientific economy (Slaughter and Leslie 1997) or unable to convert their knowledge-products to capital (Rabinow and Bennett 2012), the humanities and social sciences' "social benefits and services are more diffuse and less easily enumerated and capitalized" (Benneworth and Jongbloed 2010:567). In addition, scholars note the "gendered division of labor" wherein the humanities and social sciences researchers are seen as the caregiver

[66] The ELSI Program was founded in 1990 as the Ethical, Legal, and Social Implications Program component of the Human Genome Project. A portion of funding was allotted to research conducted on these three domains, and much of the work (cf. Balmer et al. 2015; Rabinow and Bennett 2012; Viseu 2015) detailing these endeavors has characterized geneticists' incorporation of social scientists and humanists as consistent with the "symbolic compliance" outlined by Edelman (1992).

for the project and people—administratively, publicly, interpersonally—because they are a more emotional soft science in contrast to a rational hard science (Viseu 2015; Balmer et al. 2015).

And, in important ways, these structural and cultural imbalances of epistemic power still hold in U.S. medical schools. However, in this dissertation, I present evidence that complicates this straightforward relationship of marginalization. I suggest an alternate relationship, albeit one characterized by the way in which the appeal of clinical relevance operates as a structure of opportunity and constraint for the inclusion of the humanities and social sciences into medical education. I find that the clinical faculty are supportive of more humanities and social sciences, a finding which complicates the straightforward rejection that previous medical sociologists have described (e.g., Bloom 1973; Petersdorf and Feinstein 1981; Straus 1957). Clinical faculty without social science training, such as Dr. Krebs, a medical educator at a top-ranked institution, said that the clinical relevance of social science was obvious: "If you're awake and alert, you realize 'ufff, if I write for something and they can't afford it, then what's the point?' Or if I don't take the moment to hear them when they say they're tired or they're hurt or whatever. You know you have to stop and try to understand what that means to that person, and then that's not fluffy and it's not soft it's—it is what it is because it happens to people." Dr. Krebs, in utilizing the "ufff," emphasized how suboptimal it would be to ignore the social factors that impact clinical care.

However, just as the clinical faculty may find these subjects pertinent to the cultivation of an ideal physician, their epistemic mode of justifying the inclusion of these subjects confines the humanities and social sciences' contributions to the education of future doctors.[67] Moreover, the

[67] Similarly, in an analysis of interviews with humanities and social sciences scholars employed in Canadian faculties of medicine, sociologist Albert and colleagues (2015) show how the dominant worldview of the biomedical sciences looms as an imposing set of beliefs and practices, often pushing humanities and social sciences scholars to either alter their research practices or leave the department, rarely allowing them to integrate into the department without epistemological or methodological interference.

hook into clinical relevance may prioritize the social sciences over the humanities. This simplified vision of what the humanities and social sciences hold could be tied to bifurcation of medicine as a "science" and "art" (cf. Gordon 1988).[68] Underscoring how the social sciences are perceived to be practical in contrast to the humanities, one of my respondents, Dr. Seery, an anthropologist and clinician at a middle-ranked medical school, described,

> To understand this moment, abstract philosophy is interesting, but it's not as practical and pragmatic as I think what we're doing here, is. We want to give people the tools because our physicians are frustrated. They have their patients that come in that don't have the resources to be, "compliant." And, you can tell them over and over again why they have to, but if you don't know how to ask the right questions about, well, "what is your copay? Let's look at your neighborhood, let's pull up a map of your neighborhood, let me help you. You know, you're having problems with your utility bill, I bet there are forms we can fill out to keep your electricity on." So, sort of expanding with the idea of what medical professionalism is.

As Dolan (2010) argued, the behavioral science movement supplanted history in medical school curriculum. Similarly, today, it seems as though medical schools have to choose between doing one or the other, if they wish to do the foundational curriculum, because it takes so much effort to enact both.

After reviewing my interview data of many top-ranked schools and the curricular data from all MD-granting institutions, it is clear that fewer schools integrated the humanities as required for every student compared to the social sciences (e.g., 4 as compared to 10). A few of my respondents pinpointed this difference stemming from the justifications for why the humanities and social sciences are included in the first place, and the inability to enumerate the specific relevance of the humanities. Perhaps, this is because, as literature scholar and clinician Dr. Ribeiro stated, "there is

[68] Gordon (1988) contends that the merits of clinical experience outweigh biomedical knowledge, which are borne out in the actual practice of clinical medicine. She argues that, within medicine "in fact, intuition, based on vast concrete experience, is the hallmark of expertise" in clinical settings (Gordon 1988:258).

always something about the humanities that is uncomfortable to the medical establishment." Or, as social sciences educator Dr. Wright articulated in response to that same question,

> The kind of history that used to get taught—the survey courses, the progress of medicine from ancient Egypt to the present—that's what history of medicine was in medical schools until the 70s. You can't justify that anymore, but if you emphasize anthropology it's easy to make the case. Like what is disease, how have disease definitions changed over time, what are the social meanings of disease, what's the function of stigma, what's the nature of efficacy, why is there often such a discrepancy between physician and patient in assessments of that disease, how do institutions function. It's pretty easy to make those arguments. For literature, art and music, you have to do different things.

The appeal of clinical relevance, therefore, serves as a structure of opportunity as well as constraint, which is the essence of the *relevance paradox*.[69]

When I refer to the relevance paradox, I aim to capture the position that humanities and social sciences scholars find themselves in, where they are placed in positions where they must defend the relevance of their bodies of knowledge, but the mere practice of insisting on the relevance or value of knowledge runs counter their understanding of the purpose of knowledge in the first place. Furthermore, this could also be reflected in the tension that other scholars have described when being a social sciences scholar in a biomedical setting: the tension between being "embraced as a friendly 'caretaker'" and "feared as a 'critic'" (Viseu 2015:647). This might be the plight of medical educators from these particular backgrounds who are engaged in this curricular work; although it is possible that the foundational curriculum could teach students to critically evaluate what they are participating in—as doctors, educators, members of an academic community. Indeed, the groups that have come together to put forward a particular foundational

[69] Research on economization of academic knowledge production has shown that the installment of economic expertise and knowledge has equipped federal granting agencies and universities alike with a technocratic apparatus to evaluate a research program's success or failure (Berman 2014; Hackett et al. 2008). The devolution of funding from the state and university to the individual academic actor (Irani 2015) renders research and intervention agendas more necessarily strategic and calculating. The priorities and values of translational medicine align with economization as each process links the valuation and legitimacy of scientific research to concrete, commercializable output goals (e.g., deliverables).

curriculum are movements from within the field of medical education already; these insular movements, like narrative medicine (Charon 2001) or structural competency (Metzl and Hansen 2014), emerge from within or the margins of the field of medical education itself.

Other social sciences and humanities scholars may choose to opt out of these types of justificatory regimes altogether. It is important to mention that so far there are no professional movements mobilizing to advance a foundational curriculum. In other words, the American Sociological Association is not mounting a systematic critique attempting to take the jurisdiction of instructing on the social sciences to medical students, and neither is the Modern Language Association. This is mostly because humanities and social sciences scholars are not trained to work in medical schools. In addition, I found that proximity of undergraduate institutions to the medical school—that is, the availability of faculty and departmental resources in humanities or social sciences disciplines—was not associated with whether or not an elite institution would have a foundational curriculum, showing that collaborations between the humanities and social sciences must be cultivated in a deliberate manner.

Identity Taxation in Medical Schools

Empirically, in this analysis I show a key way in which medical educators "teach" students about the social science on race, which can help us understand more broadly how doctors are or are not equipped to address racial inequality. In addition, I draw attention to the way in which educators' implementation of a curricular mandate to teach about social inequalities may give way to social inequalities of their own. In my chapter on the conscripted curriculum, by showing how medical students of color are more likely to be conscripted, this work starts to fill a large gap in the literature on medical socialization about how the racial identity of students matters for their

instruction (Underman and Hirshfield 2016). While the concept of the conscripted curriculum has been developed based on my analysis of the instruction of race and racism, I do not believe that educators' use of the conscripted curriculum in institutions of higher education is limited to exploiting students of color. The conscripted curriculum, as a concept, can capture the experience of any student who is tasked with educating their peers about an aspect of their social identity.[70]

Despite the fact that medical schools have improved the representation of historically underrepresented racial groups since the 1970s (AAMC 2016), this representation comes at a cost.[71] The increased numbers of students of color in medical school may have helped the circumstances in which the conscripted curriculum can exist. There are enough students of color that a small group is likely to have at least one student of color, but not enough students of color to allow them to escape the isolation or additional burden of the instructional work. As I show and the broader literature from the sociology of education suggests, these burdens have consequences. In various educational settings, scholars have described how students experience and cope with their position in institutions that reinforce racial inequality.

In their study of female graduate students of color in sociology programs, Margolis and Romero (1998) found that students of color were often stigmatized, blamed, stereotyped, silenced, and excluded, among other tactics by their white peers and faculty. While Ong et al. (2011) detail a "fractured self"—students of color who see their STEM scientist identity as separate from their

[70] It is important to note that I did not find evidence of the conscripted curriculum occurring with the social identity of gender. In my interview guide, I asked how respondents taught—or learned about—social categories like race or gender. I often asked a follow up question regarding whether they ever learned about sexism, racism, or heteronormativity. I think that the visibility and marginal status of students of color contributed to their conscription at a greater frequency than women as a group; I believe that the potentiality of invisibility when it comes to sexuality may impact the likelihood that students who identify as LGBTQIA get conscripted by educators. All said, it is important to note that heteronormativity permeates medical schools, as detailed in a study by Murphy (2014).

[71] At the start of the 2017-2018 academic year, of the 89,904 students enrolled in U.S. medical schools, 6.8% identified as black or African American, 6.4% as Latino, 21.3% as Asian, and 52.0% as white; while students of color are still underrepresented, the medical profession enrolls more students of color than other professional schools (AAMC 2018).

social identity—other scholars found that students of color experienced more depression and mental health concerns (Torres, Driscoll, and Burrow 2010) and higher emotional distress and lower sense of belonging (Clark et al. 2012).

Similar to the "burden of expectation" placed upon students from underrepresented minority (URM) backgrounds to pursue primary care practice with underserved populations (Michalec et al. 2017), I find that with the instruction of race in U.S. medical schools, the conscripted curriculum is another burden placed on students of color.[72] What is more, the educators' use of students of color as the conscripted curriculum is similar to more "identity taxation" or "racialized equity labor" down the career pipeline, when faculty members of color are pressed into both departmental and institutional service activities related to diversity and equity (Cyrus 2017; Joseph and Hirshfield 2011; Lerma, Hamilton, and Nielsen 2019; Padilla 1994).

The expectation placed on faculty members of color to participate in both departmental and institutional activities related to diversity and equity, activities like recruiting and advising students of color, serving on a diversity committee, educating members of the racial majority, is placed on the faculty members of color and not placed on white faculty members (Padilla 1994:26). In their study of academic departments, Joseph and Hirshfield (2011:136) show how faculty members from marginalized backgrounds also experience cultural taxation in the form of putting up with

[72] These burdens of expectation and identity taxation—that students of color can draw upon their lived experience as persons of color to teach their peers about race—stem from similar understandings the medical profession holds about why underrepresentation is a problem in the first place. Justifications for increased enrollment of URM students into medical school are often built on the dual pillars of the benefits of diversity for education and patient care rather than equity-based rationales. For example, medical educators argue that the increased representation of racial minorities will increase educational experiences for all (e.g., majority white) medical students (Morrison and Grbic 2015). However, as a close examination of van Ryn et. al's (2015) study revealed, we need to do more research to specify which interracial contacts result in lessened bias and how that occurs. Otherwise, educators may continue to put stock in *any* form of interracial contact—forms like the conscripted curriculum, which actually reify racial inequalities in medical education. The conscripted curriculum is one instance of interracial contact that may *not* be beneficial for white students nor students of color, as it fails to convince white students of the importance of social understandings of race—and thus is not likely to challenge their implicit racial biases—and it places additional burdens on students of color.

their privileged colleagues' offensive and de-legitimating remarks. Lerma, Hamilton, and Nielsen (2019) show how this process of identity taxation even begins before students become medical students or faculty members, observing that students of color at undergraduate institutions also are subject to this type of work, in what they term "racialized equity labor". While all of these instances exhibit inequity, what stands out about the conscripted curriculum in this body of identity taxation work, is that students are getting conscripted into doing this type of instruction in fulfillment of a curricular standard, rather than a diversity and equity initiatives.

Importantly, these experiences are avoidable. Educators that deliberately teach on the structural inequalities of race weave discussions of social understandings of race and racism into their didactic sessions on particular organ systems in the foundational curriculum. As opposed to the majority of student respondents in my sample, when I spoke to students at the few schools where social understandings of race were included in the didactic material, they reported sentiments similar to Flannery, a white second-year medical student, who explained, "we were told multiple times that there isn't really a biological basis to race, so I believe it's true. I think it is true that race is something that we construct onto people even though there are no necessarily genetic differences. So that's been a big topic and an important topic because it affects patient care even though there is no biological reason for it to be relevant." By taking responsibility for the instruction on the social science, the educators at Flannery's institution do not make some students engage in extra labor and convey the importance of why physicians should care about race.

LIMITATIONS AND FUTURE RESEARCH

There are two central challenges to any study of the UME in the context of the medical profession pipeline, stemming from the debate about how the medical profession can cultivate the

idealized physician. The first challenge asserts that residency and clinical experiences override any sort of in-classroom training that occurs in UME; the second challenge posits that the characteristics needed in an ideal physician can be selected during the UME admissions process. Both positions question the relevance of the UME curriculum, in general.

The Challenge of the Primacy of Residency

In the debate about how the ideal physician is trained, where the first position might assert the relevance of the UME training, the second position usually posits that the true learning occurs when medical students gain clinical experience and attendings model ideal physician behavior for them. As I addressed in Chapter Two, one of the limitations of this study is that I do not have data on real-time clinical encounters, where students and faculty put their training into action. This presents a problem for the conclusions I can draw because many analyses of medical school training have pointed to the primacy of residency in shaping students. For example, one social scientist at a top-ranked medical school that I spoke to, Dr. Wright, articulated the problem the clinical setting presents for the instruction of the social sciences as follows:

> Students get heavily socialized during those clerkships and one of the first things that gets beaten out of students is concern about social worlds because they're so narrowly focused on the biology that anything interesting that goes on with a patient's social world is basically just an obstacle to discharge. It's like you don't have time to care about the homelessness. You just need to figure out how is that going to interfere with the patient's discharge, can you discharge this person to a homeless shelter? If like you know students get taught to take social histories during first-year medical school and then in the fast pace of actual clinical clerkships everyone signals through body language that there's no time to actually present the social history. They just want to know does the person use drugs, are they engaged in high risk social behaviors. So students get this real mixed message. We now get to see the students afterwards and try to restore some proper attention to the lift experiences of their patients they're just going to see how hard they push back. They come in saying we see what is valued on these wards; all the stuff you're teaching us is really irrelevant that's the risk.

Rotations and residency—parts of medical education that are conducted in clinical settings—are critical time periods that could ostensibly challenge students' perceptions of the value and relevance of the social sciences and humanities.

Empirical studies by medical educators pinpoint the third year of clerkships and residency, in particular, as the time where empathy gets eroded. The void of mentorship, high volume of patients to see and material to master, time pressure, and involvement with more technological components of clinical practice create the conditions under which medical students lose empathy (Coulehan and Williams 2003; Pedersen 2010). From this canon of literature, we know that medical students are more likely to lose idealism over time and have their caring attitudes subverted into competence (Becker et al. 1961; Brosnan 2010) as well as learn affective techniques to control feelings (Fox 1988; Hafferty 1988; Underman 2015).[73]

In my study, I find evidence that the content of what students are taught within the UME matters for how they view how they will approach their future clinical practice; in addition, the educators in my sample who have clinical appointments describe understanding the social sciences and humanities as relevant to their work. Cunningham and colleagues (2014) have shown that whether practicing clinicians are uncertain about the meaning of race impact how they treat patients, to the detriment of racial minorities, suggesting what students learn about social science may shape how they approach clinical practice.

That said, with my data I cannot comment on whether or not the students exposed to the foundational curriculum will take an appreciation of the social sciences and humanities into their future practice, nor can I assert whether students who learn the therapeutic, symbolic, or conscripted curricula will not. Therefore, future work could examine how residencies influence

[73] This decline was not observed in Korean and Japanese medical students, using the same validated empathy scales that are used to measure loss of idealism in U.S. medical students (Pedersen 2010).

students who have undergone different types of curriculum (e.g., foundational vs. symbolic), and whether similar patterns hold up (e.g., elite institutions with more financial and intellectual resources are more likely to be foundational). Moreover, whether residency educators view the humanities and social sciences as relevant knowledge *or* skills might be a pivotal factor in identifying how these educators demonstrate the applicability of the humanities and social sciences to clinical practice. Because UME educators described the humanities and social sciences as markers of prestige to use in Dean's Letters, it is possible that residency directors may be valuing these UME training more.

The Challenge of the Primacy of Admissions

The second challenge to the role the UME plays is the notion that students are already shaped before they matriculate. Evidence from admissions data suggests that medical schools select students from the elite segments of society (AAMC 2018). Furthermore, as my respondents indicated, many students seem to enter UME as very impressive candidates; some described as having very high cultural capital, like medical students who also were concert cellists. Very little work has explored the role of college major, although one recent article by Hirshfield and colleagues (2019) is suggestive that whether students are humanities or social sciences majors could impact their performance on UME exams, like the United States Medical Licensing Exam (USMLE). Hirshfield et al. (2019:408) find that upon graduating from UME, students who were humanities or social sciences majors performed better on Communication and Interpersonal Skills exams than their biomedical sciences counterparts (Cohen's $d = 0.28$, $p = 0.011$). They argue that their "results suggest that considering humanistic factors as part of admissions criteria may promote the selection and training of physicians with good communication skills" (2019:408).

Other work also suggests that the formative experiences that students bring into medical school—particularly community service work, religious organizations work, and growing up in a medically underserved era—shapes whether students wish to work with the underserved (O'Connell et al. 2018). However, these scholars also found that whether the school was categorized as having a high social mission also predicted these findings (O'Connell et al. 2018), showing the importance of the school's priorities. Similarly, Michalec et al. (2018) argue that by setting the admissions criteria in such a demanding way, it is impossible to disentangle the UME gatekeepers' influence from premedical students' decision-making processes before matriculation. While UME still is important for patterning what students might look like before they matriculate, future work could examine whether incoming major plays a role in shaping how students may live up to the idealized physician prototype. In that vein, one type of future empirical analysis could be an assessment of whether medical students with educational backgrounds in the humanities or social sciences have more empathy than their peers from the basic or biomedical sciences.

POLICY RECOMMENDATIONS

Because my work establishes the UME as a powerful mechanism for shaping a student's approach to doctoring, there are five areas for which I would like to make recommendations for change in medical schools: standards, faculty development, curricular emphases, student support, and patient feedback. First, as the symbolic and conscripted curriculum chapter show, the LCME Standards at present are too ambiguous. If they are truly designed to teach physicians how to address societal problems and health and health care disparities, then the LCME Standards need to provide more specificity so educators without a powerful intellectual infrastructure have a stronger foothold to grab onto. Medical educators at institutions that might not have a social

sciences scholar, for instance, might not know the vast body of literature they could draw upon in teaching the prescribed LCME Standards. If the LCME Standards came with a set of recommended readings and test questions, that would serve as a guide to all medical schools. The MCAT provides these resources so students know how to prepare for the exam, and this could serve as a model for the LCME. Some top-ranked medical schools also provide an annotated version of the LCME Standards where they indicate how to teach a foundational social sciences curriculum. For each of the standards contained within LCME Standard 7.6, that school offers learning objectives and course materials on their website.

While the first recommendation is at a field-wide level, the second recommendation is at the level of each institution. Schools should invest in faculty development, whether it is through hiring, training, partnering across the campus, or work on developing programs for MD-PhDs in the social sciences and humanities. Of course, to build up the faculty to be able to facilitate the foundational curriculum is no small feat. It seems clear that the central way in which medical educators could incorporate the social sciences and humanities in order to cultivate their idealized future physician would be to simply get more money. More money allows institutions to pay clinical and social sciences/humanities faculty for their time as well as invest in curricular development and faculty training. I think that the former may be more feasible than the later. Another potential way in which medical educators could work to enact the foundational curriculum is to think about partnering with their undergraduate institutions for hiring decisions or cross-listed courses, although that could be fraught with the same epistemic challenges that beset present day incorporation of the humanities and social sciences into medical schools. A final way in which medical schools could invest in faculty development would be to ramp up MD-PhD training in

social sciences and humanities and insist that these tracks be given similar support as basic sciences research tracks, which are powerful moves that a few top-ranked institutions have made.

The reason why faculty development is so important is because this dissertation shows that where educators decide to include the social sciences and humanities within their curriculum has consequences for what students learn. Thus, the third policy implication for medical education is that many of these problems with patients, whether health and health care disparities or patient dissatisfaction, cannot be fixed by educators focusing on the development of skills alone. I have shown that it is clear that students view skill development in medical school as less important than knowledge acquisition. Moreover, I also have shown that the skill development is often led by faculty who lack the expertise to convey how these skills are important for students. If medical educators taught social sciences and humanities within the foundational knowledge portion of the curriculum, giving these bodies of knowledge equal epistemological footing as the basic sciences and clinical medicine, then students would have the impressions that the students receiving the foundational curriculum had—an appreciation for critical and interpretive social scientific and humanistic knowledge premised on it being essential to their future clinical practice.

The first three recommendations have to do with suggestions on supporting or facilitating curricular change. The latter two recommendations are centered upon two other groups whose voices are minimized or altogether neglected but might be important stakeholders in discussions surrounding curricular change. Fourth, as the chapters on the therapeutic and conscripted curriculum show, students in medical schools confront a host of challenges; these challenges may be ubiquitous, or they might be unique to a particular subset of the medical school population. In general, medical schools need to critically examine how the structure of medical education may be impacting burnout among their students and how providing optional coursework may only be

an individual-based solution. In addition to thinking about how they might support the students across the board rather than asking them to simply be resilient, I would also recommend that medical schools interrogate their curricular practices for how they treat their students from marginalized backgrounds. Are they unintentionally devolving the instruction of social sciences topics onto their students who are from marginalized groups? When students have concerns over the curriculum, how are these concerns handled? If they are going to conscript students to teach, then they should allow them to offer critical feedback on how instruction is going.

Fifth and finally, for a discussion that is about how to cultivate the idealized physician, one thing that struck me throughout my interviews was that there was one group that was remarkably absent: the patients. A few social sciences and humanities scholars pointed to patients as the source of these curricular changes. For example, a historian in a tenure-track position in a Department of Medical Education at a middle-ranked institution, Dr. Camara, argued that patients are "demanding that their physicians treat them like people and not just like diagnoses." I think that as medical schools contemplate future curricular change, they could do a more systematic job at eliciting and incorporating what their community wants as educators approach the cultivation of an ideal physician.

LOOKING FORWARD

If one thing is clear from this study, it is that students and faculty are committed to cultivating a future physician who is responsive to the needs and wants of the external, political, and social pressures of health and health care disparities, the problem of burnout, and the rise in the need for patient-centered care. To do this, they understand the necessity of the humanities and social sciences, but how exactly they incorporate these disciplines into their curriculum depends

on how they navigate the epistemic and organizational challenges at their institution. Looking forward, one of the greatest potentials for change stems from generational change. The oldest faculty members may have trained under a medical school curricular structure that was losing its humanities and social sciences due to an influx of biomedicine. The middle generation came of age with very little to no humanities and social sciences instruction, and these debates were largely absent from any sort of medical education discourse.

The younger generation of faculty may have been exposed to discussions and material encapsulated in the same impetus driving the IOM Report, CLAS, and LCME Standards change. This is important in that the bulk of medical school leadership has had no systematic study of humanities and social sciences and a ton of clinical experience, and therefore, this clinical experience will shape how they conceptualize the relevance of these subjects. We may see curricular change as younger cohorts gain more leadership positions. Medical graduates who have taken the foundational curriculum at elite institutions and who go on to prestigious residencies and academic appointments at top-ranked institutions may be particularly well-situated to turn the tide of medical education toward incorporating humanities and social sciences in ways that teach rich critical and interpretive knowledge for clinical practice.

APPENDIX A

Interview Schedule

Thank you for agreeing to speak with me. I want to talk about your research, curricular development, teaching, and/or learning in medical education. Before I begin, I would like to go over some paperwork, to inform you of the study.

You can stop the interview at any time or skip any questions you do not want to answer.

A. Academic Background and Research

I'd like to start by briefly asking you questions about your academic background.

1. I saw on your online bio that you earned your [*professional degree(s)*] at [*past institution*]. Is that correct?

→Did you do additional training anywhere?

[FOR STUDENTS]→When did/will you graduate?

2. Which field(s) is/was your graduate training in?

3. Which field did you major in college?

4. Could you please briefly describe the research you are engaged in?

→Change over time?

→Do you largely work on projects by yourself, as a part of a collaboration with another colleague, or on larger research teams?

→Who do you co-author with most?

5. What professional associations and working groups do you belong to?

→Which meetings do you attend?

B1. Curricular Intervention Nature and Purpose (EDUCATORS)

[IF STUDENT, SKIP TO B2]

As I mentioned to you by [phone/email], I'm interested in exploring with you today your work in medical education.

8. How did you become interested in or involved with medical education?

→Could you describe an experience where you thought that there was something that about medical education that needed to be improved?

9. How would you describe your role at the medical school?

→How long have you been in this role? Has it changed?

10. Do you develop or teach medical education curricula?

→Could you please describe the course(s) you have designed or taught?

→What were the objectives for the course?

→What research materials do you draw upon in your development of curricula? Are there popular or model-like approaches? Do you have a copy of the syllabus I could see?

→How did you learn about this research area?

→When you are developing these curricular materials, who else is involved in this process? How do you reach decisions as a team?

→Who do you need to persuade or get to buy in to your suggestions?

11. Why did you choose to include [*curricular practice*] in medical education?

→During the decision-making process, what were the positions for its inclusion?

→During the decision-making process, was there any position against its inclusion?

→Did this knowledge replace or interfere with other courses?

B2. Curricular Intervention Nature and Purpose (STUDENTS)

As I mentioned to you by [phone/email], I'm interested in exploring with you today your impressions of the humanities and social sciences in medical education.

8. In your coursework, have you taken any courses in the humanities or social sciences?

→Is this course required or an elective? Credit/non-credit?

9. Could you describe how this [*course/elective*] was structured?

→Were there any homework assignments?

→How often did you have to attend?

→What was the syllabus like?

→What were the reading materials like? (Can you remember any of the authors?)

→Were there any other courses or electives that you know about that were incorporated into medical education at your school?

10. What is the goal for including the humanities in medical education? What is its purpose?

→ What is the goal for including the social sciences in medical education? What is its purpose?

11. What did you think of this/these courses?

→Do you think your impressions of the course(s) were similar to other students? Why or why not?

→What did you learn?

→Did you like them

→How do you see these courses help you as you become a doctor?

C. Curricular Intervention Instruction and Success

At this point, I'd like to ask you a little bit more about how these courses fare in medical education.

12. Generally speaking, what evidence do you think best illustrates the success of a course or curriculum?

→Do you think your colleagues would agree with you?

→Do you think anyone would disagree with you?

13. How do you evaluate your students?

→Why do you take that approach?

14. In your opinion, what do students most gain from the humanities? Social sciences?

→Are these programs creating a different type of doctor?

15. In your opinion, what are the most rewarding parts of developing teaching these courses?

16. In your opinion, what are the most challenging parts of developing or teaching these courses?

17. If a medical student was skeptical about these courses, what would you say to them to convince the student that it was necessary?

→If the dean of the medical school was skeptical about these courses, what would you say to convince the dean that it was necessary?

→If your professional colleagues were skeptical about these courses, what would you say to convince them it was necessary?

D. Practices & Personal Background

We are nearing the end here. Now that we've talked about your work with medical education, I have just a few more questions.

18. How would you teach the LCME Standards? What do they mean to you?

→What about Standard 7.6?

19. How would you conceptualize medical humanities? What does this term mean to you?

20. Would you ever teach/learn anything on the social construction perspective?

→For example, did you teach/learn about the social construction of race or gender?

21. Do you have any reservations about these types of curricular practices in medical education?

22. Has your personal background or particular experiences shaped your interest in these topics?

23. Is there anything else that came to mind during the interview that you did not get a chance to say that you want to mention?

24. Do you have any questions for me?

I really appreciate you taking the time to meet with me. I would like to talk with more humanities scholars, social scientific scholars, or medical educators. Do you know of anyone who may be willing to also sit for an interview? Please give them my phone number and email address. Thank you.

APPENDIX B

Liaison Committee on Medical Education Data Collection Instrument

7.1 Biomedical, Behavioral, Social Sciences

The faculty of a medical school ensure that the medical curriculum includes content from the biomedical, behavioral, and socioeconomic sciences to support medical students' mastery of contemporary medical science knowledge and concepts and the methods fundamental to applying them to the health of individuals and populations.

Supporting Data

Table 7.1-1 | Curricular Content

For each topic area, place an "X" under each column to indicate the phases in which the learning objectives related to each topic are taught and assessed.

Topic Areas	Phases Where Topic Areas Are Taught and Assessed		
	Pre-clerkship Phase	Clerkship Phase	Other*
Biochemistry			
Biostatistics and epidemiology			
Genetics			
Gross Anatomy			
Immunology			
Microbiology			
Pathology			
Pharmacology			
Physiology			
Behavioral science			
Pathophysiology			

*Describe "Other"

Table 7.1-2 | Basic Science Education

Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who rated preparation for clinical clerkships and electives as *excellent or good* (aggregated) in the following basic medical sciences.

	AAMC GQ 2018		AAMC GQ 2019		AAMC GQ 2020	
	School %	National %	School %	National %	School %	National %
Biochemistry						
Biostatistics and epidemiology						
Genetics						
Gross anatomy						
Immunology						
Microbiology						
Pathology						
Pharmacology						
Physiology						
Behavioral Science						

Pathophysiology						

Table 7.1-3 | Curricular Content			
For each topic area, place an "X" under each column to indicate the phases in which the learning objectives related to each topic are taught and assessed.			
	Phases Where Topic Areas are Taught and Assessed		
	Pre-clerkship Phase	Clerkship Phase	Other*
Global health			
Health care financing			
Human sexuality			
Law and medicine			
Nutrition			
Pain management			
Patient safety			
Population-based medicine			

*Describe "Other"

Table 7.1-4 | General Medical Education - Preparation for Residency					
Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who *agree/strongly agree* (aggregated) that they are prepared in the following area to begin a residency program: *Fundamental understanding of the issues in social sciences of medicine (e.g., ethics, humanism, professionalism, organization, and structure of the health care system)*.					
AAMC GQ 2018		AAMC GQ 2019		AAMC GQ 2020	
School %	National %	School %	National %	School %	National %

Narrative Response

a. Briefly summarize any changes in the last two academic years in the extent or curricular placement of any of the content areas included in the tables above, and briefly note the rationale for the change (i.e., student feedback, test scores, new subject matter, etc.).

7.2 Organ Systems/Life Cycle/Primary Care/ Prevention/Symptoms/Signs/Differential Diagnosis, Treatment Planning, Impact of Behavioral and Social Factors

The faculty of a medical school ensure that the medical curriculum includes content and clinical experiences related to each organ system; each phase of the human life cycle; continuity of care; and preventive, acute, chronic, rehabilitative, and end-of-life care.

Supporting Data

Table 7.2-1a | General Medical Education – Education to Diagnose Disease

Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education to diagnose disease. Add tables as needed for additional relevant survey questions.

Medical School Class	Number of Total Responses to this item	Number and % of N/A Responses		Number and % of combined Dissatisfied and Very Dissatisfied Responses		Number and % of combined Satisfied and Very Satisfied Responses	
		N	%	N	%	N	%
M1							
M2							
M3							
M4							
Total							

Table 7.2-1b | General Medical Education – Education to Manage Disease

Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education to manage disease. Add tables as needed for additional relevant survey questions.

Medical School Class	Number of Total Responses to this item	Number and % of N/A Responses		Number and % of combined Dissatisfied and Very Dissatisfied Responses		Number and % of combined Satisfied and Very Satisfied Responses	
		N	%	N	%	N	%
M1							
M2							
M3							
M4							
Total							

Table 7.2-1c | General Medical Education – Education in Disease Prevention							
Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education in disease prevention. Add tables as needed for additional relevant survey questions.							
Medical School Class	Number of Total Responses to this item	Number and % of N/A Responses		Number and % of combined Dissatisfied and Very Dissatisfied Responses		Number and % of combined Satisfied and Very Satisfied Responses	
		N	%	N	%	N	%
M1							
M2							
M3							
M4							
Total							

Table 7.2-1d | General Medical Education –Education in Health Maintenance							
Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with adequacy of education in health maintenance. Add tables as needed for additional relevant survey questions.							
Medical School Class	Number of Total Responses to this item	Number and % of N/A Responses		Number and % of combined Dissatisfied and Very Dissatisfied Responses		Number and % of combined Satisfied and Very Satisfied Responses	
		N	%	N	%	N	%
M1							
M2							
M3							
M4							
Total							

Table 7.2-2 | General Medical Education						
Place an "X" in each column indicating the courses or clerkships where each of the following topic areas is taught and assessed. Use same course names as provided. Add rows for course and clerkship names as needed.						
Course/Clerkship name	Continuity of care	Preventive care	Acute care	Chronic care	Rehabilitative care	End-of- life care

7.3 Scientific Method/Clinical/Translational Research

The faculty of a medical school ensure that the medical curriculum includes instruction in the scientific method and in the basic scientific and ethical principles of clinical and translational research, including the ways in which such research is conducted, evaluated, explained to patients, and applied to patient care.

Narrative Response

a. Identify where in the curriculum medical students receive instruction in the scientific method. Include a description of which aspects of the scientific method are covered, the teaching format(s) used, and how student learning is assessed.

b. Describe the locations in the curriculum where medical students are taught and assessed on the basic scientific and/or ethical principles of clinical and translational research and the methods for conducting such research. In the description, include the required courses/clerkships in which medical students learn how such research is conducted, evaluated, explained to patients and applied to patient care, and how students' acquisition of this knowledge is assessed.

c. Describe where in the curriculum students are taught and assessed on the application of biomedical statistics and medical science research to patient care.

7.4 Critical Judgment/Problem-Solving Skills

The faculty of a medical school ensure that the medical curriculum incorporates the fundamental principles of medicine, provides opportunities for medical students to acquire skills of critical judgment based on evidence and experience, and develops medical students' ability to use those principles and skills effectively in solving problems of health and disease.

Supporting Data

Table 7.4-1 | Critical Judgment and Problem Solving			
For each topic area, place an "X" in the appropriate column to indicate whether the topic is taught separately as an independent required course and/or as part of a required integrated course. Place an "X" under each column to indicate the year(s) in which each topic is taught and assessed.			
Topic Areas	Location in the curriculum where the listed skill is taught/assessed		
	Pre-clerkship Phase	Clerkship Phase	Other*
Skills of critical judgment based on evidence			
Skills of medical problem solving			

*Define "Other"

Narrative Response

a. Provide two detailed examples from the pre-clerkship phase of the curriculum of where students learn, demonstrate, and are assessed on each of the following skills. In each description, include the courses where this instruction and assessment occurs and provide the relevant learning objectives.

    1. Skills of critical judgment based on evidence and experience
    2. Skills of medical problem solving

7.5 Societal Problems

The faculty of a medical school ensure that the medical curriculum includes instruction in the diagnosis, prevention, appropriate reporting, and treatment of the medical consequences of common societal problems.

Narrative Response

a. Describe five common societal problems that are taught and assessed in the curriculum. For each of the five societal problems:

    1. Describe where in the curriculum the teaching occurs and how content related to the societal problem is taught and assessed

    2. Provide the relevant course and/or clerkship learning objectives that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of the societal problem

7.6 Cultural Competence and Health Care Disparities

The faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process. The medical curriculum includes instruction regarding the following:

- The manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments
- The basic principles of culturally competent health care
- Recognition of the impact of disparities in health care on medically underserved populations and potential solutions to eliminate health care disparities
- The knowledge, skills, and core professional attributes (e.g., altruism, accountability) needed to provide effective care in a multidimensional and diverse society

Supporting Data

Table 7.6-1 | Cultural Competence

Provide the names of courses and clerkships that include objectives related to cultural competence in health care. For each, list the specific topic areas covered. Schools using the AAMC Tool for Assessing Cultural Competence Training (TACCT) may use the "Domains" table as a source for these data.

Course/Clerkship	Topic Area(s) Covered

Table 7.6-2 | Health Disparities, Demographic Influences, and Medically Underserved Populations

Provide the names of courses and clerkships where explicit learning objectives related to the listed topics areas are taught and assessed. For each course/clerkship indicate "X" which area(s) is/are included.

Course/Clerkship	Topic Area(s) Covered		
	Identifying and Providing Solutions for Health Disparities	Identifying Demographic Influences on Health Care Quality and Effectiveness	Meeting the Health Care Needs of Medically Underserved Populations

Table 7.6-3 | General Medical Education - Preparation for Residency

Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who *agree/strongly agree* (aggregated) that they are prepared in the following area to begin a residency program: *Prepared to care for patients from different backgrounds.*

AAMC GQ 2018		AAMC GQ 2019		AAMC GQ 2020	
School %	National %	School %	National %	School %	National %

Table 7.6-4 Adequacy of Education							
Provide data from the ISA by curriculum year on the number and percentage of students who responded n/a, dissatisfied/very dissatisfied (combined), and satisfied/very satisfied (combined) with the adequacy of education in caring for patients from different backgrounds. Add tables as needed for additional relevant survey questions.							
Medical School Class	Number of Total Responses to this item	Number and % of N/A Responses		Number and % of combined Dissatisfied and Very Dissatisfied Responses		Number and % of combined Satisfied and Very Satisfied Responses	
		N	%	N	%	N	%
M1							
M2							
M3							
M4							
Total							

Narrative Response

a. Provide two examples of how the curriculum prepares medical students to be aware of their own gender and cultural biases and those of their peers and teachers.

7.7 Medical Ethics

The faculty of a medical school ensure that the medical curriculum includes instruction for medical students in medical ethics and human values both prior to and during their participation in patient care activities and require medical students to behave ethically in caring for patients and in relating to patients' families and others involved in patient care.

Supporting Data

Table 7.7-1 | Medical Ethics

For each topic area listed below, indicate whether the topic is taught separately as an independent required course and/or as part of a required integrated course and when in the curriculum these topics are included by placing an "X" in the appropriate columns.

Topic	Phases where the topic areas are taught/assessed		
	Pre-clerkship Phase	Clerkship Phase	Other*
Biomedical ethics			
Ethical decision-making			
Professionalism			

*Describe "Other"

Table 7.7-2 | General Medical Education - Preparation for Residency

Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who *agree/strongly agree* (aggregated) that they are prepared in the following area to begin a residency program: *I understand the ethical and professional values that are expected of the profession.*

AAMC GQ 2018		AAMC GQ 2019		AAMC GQ 2020	
School %	National %	School %	National %	School %	National%

Narrative Response

a. Describe the method(s) used to assess medical students' ethical behavior in the care of patients. How are breaches of ethical behaviors in patient care by medical students identified and remediated?

Supporting Documentation

1. Instruments used in the formative and/or summative assessment of medical students' ethical behavior during the pre-clerkship and clinical clerkship phases of the curriculum.

7.8 Communication Skills

The faculty of a medical school ensure that the medical curriculum includes specific instruction in communication skills as they relate to communication with patients and their families, colleagues, and other health professionals.

Supporting Data

Table 7.8-1a | Communication Skills - Communicating with Patients and Patients' Families	
Provide the names of courses and clerkships where explicit learning objectives are taught and assessed, and list the learning objectives for each course and clerkship	
Course/Clerkship	Learning Objectives

Table 7.8-1b | Communication Skills - Communicating with Physicians as Part of the Medical Team	
Provide the names of courses and clerkships where explicit learning objectives are taught and assessed, and list the learning objectives for each course and clerkship	
Course/Clerkship	Learning Objectives

Table 7.8-1c | Communication Skills - Communicating with Non-Physician Health Professionals as Part of the Health Care Team)	
Provide the names of courses and clerkships where explicit learning objectives are taught and assessed, and list the learning objectives for each course and clerkship	
Course/Clerkship	Learning Objectives

Table 7.8-2 | General Medical Education - Preparation for Residency					
Provide school and national comparison data from the AAMC Medical School Graduation Questionnaire (AAMC GQ) on the percentage of respondents who *agree/strongly agree* (aggregated) that they are prepared in the following area to begin a residency program: *Communication skills necessary to interact with patients and health professionals.*					
AAMC GQ 2018		AAMC GQ 2019		AAMC GQ 2020	
School %	National %	School %	National%	School %	National %

Narrative Response

a. Describe one specific educational activity in the curriculum, including the location in the curriculum and the method(s) of student assessment, for each of the following topic areas:

   1. Communicating with patients and patients' families
   2. Communicating with physicians as part of the medical team
   3. Communicating with non-physician health professionals as members of the health care team

7.9 Interprofessional Collaborative Skills

The faculty of a medical school ensure that the core curriculum of the medical education program prepares medical students to function collaboratively on health care teams that include health professionals from other disciplines as they provide coordinated services to patients. These curricular experiences include practitioners and/or students from the other health professions.

Supporting Data

Table 7.9-1 | Interprofessional Collaborative Skills (ICS) in the Curriculum

Complete the following table with information on required experiences where medical students are brought together with students and/or practitioners from other health professions to learn to function collaboratively on health care teams with the goal of providing coordinated services to patients. Add rows as needed.

Name and Curriculum Phase of the Course or Clerkship Where the Experience Occurs	Learning Objectives of the ICS Experience	Duration of the Experience (e.g., single session)	Setting(s) Where the Experience Occurs	Other Health Professions Students (S) or Practitioners (P)	Assessment Method(s)

Supporting Documentation

1. Examples of forms used in the assessment of medical students' collaborative practice skills. For each example, list the course or clerkship in which the form is used.

BIBLIOGRAPHY

Abbott, Andrew. 1988. *The Systems of the Professions: An Essay on the Division of Expert Labor*. Chicago, IL: University of Chicago Press.

Albert, Mathieu, Elise Paradis and Ayelet Kuper. 2015. "Interdisciplinary Promises Versus Practices in Medicine: The Decoupled Experiences of Social Sciences and Humanities Scholars." *Social Science and Medicine* 126(1):17–25.

Aldrich, Howard E. and C. Marlene Fiol. 1994. "Fools Rush In? The Institutional Context of Industry Creation." *Academy of Management Review* 19(4):645–670.

Amsterdamska, Olga. 2008. "Practices, People, and Places." Pp. 205–210 in *The Handbook of Science and Technology Studies*, edited by Edward J. Hackett, Olga Amsterdamska, Michael Lynch, and Judy Wajcman. Cambridge, MA: MIT Press.

Anderson, Warwick. 2008. "Teaching Race at Medical School: Social Scientists on the Margin." *Social Studies of Science* 38(5):785–800.

Arragon, R.F. 1960. "Humanities and Medical Education." *Journal of Medical Education* 35(10):908–912.

Arum, Richard and Josipa Roksa. 2011. *Academically Adrift: Limited Learning on College Campuses.* Chicago, IL: University of Chicago Press.

Association of American Medical Colleges. 1946. "Report of the Joint Committee on the Teaching of the Social and Environmental Factors in Medicine." *Minutes of the Proceedings of the Fifty-Seventh Annual Meeting Held in Edgewater Park, Mississippi.* Chicago, IL: AAMC.

Association of American Medical Colleges. 2016. "Diversity in Medical Education: Facts and Figures 2016." Vol. 6. *Facts and Figures Report.* Washington, DC: AAMC.

Association of American Medical Colleges. 2018. "Total Enrollment by U.S. Medical School and Race/Ethnicity, 2017–2018." Vol. 3. *FACTS: Applicants, Matriculants, Enrollment, Graduates, MD-PhD, and Residency Applicants Data.* Washington, DC: AAMC.

Bagdley, Robin F. and Samuel W. Bloom. 1973. "Behavioral Sciences and Medical Education: The Case of Sociology." *Social Science and Medicine* 7(1):923–941.

Balint, Michael. 1957. *The Doctor, His Patient, and the Illness.* London: Pittman.

Balmer, Andrew S., Jane Calvert, Claire Marris, Susan Molyneux-Hodgson, Emma Frow, Matthew Kearnes, Kate Bulpin, Pablo Schyfter, Adrian Mackenzie, and Paul Martin. 2015. "Taking Roles in Interdisciplinary Collaborations: Reflections on Working in Post-ELSI Spaces in the UK Synthetic Biology Community." *Science and Technology Studies* 28(3):3–25.

Bastedo, Michael N. and Nicholas A. Bowman. 2011. “College Rankings as an Interorganizational Dependency: Establishing the Foundation for Strategic and Institutional Accounts.” *Research in Higher Education* 52(1):3–23.

Bastedo, Michael N., and Nicholas A. Bowman. 2010. "The U.S. News and World Report College Rankings: Modeling Institutional Effects on Organizational Reputation." *American Journal of Education* 116(2):163–183.

Beagan, Brenda. 2003. “Teaching Social and Cultural Awareness to Medical Students: ‘It’s All Very Nice to Talk about It in Theory, But Ultimately It Makes No Difference.” *Academic Medicine* 78(6): 605–614.

Becker, Howard, Blanche Geer, Everett C. Hughes, and Anselm C. Strauss. 1961. *Boys in White: Student Culture in Medical School*. Chicago, IL: University of Chicago Press.

Benjamin, Ruha. 2016. "Catching Our Breath: Critical Race STS and the Carceral Imagination." *Engaging Science, Technology, and Society* 2(1):145–156.

Benneworth, Paul and Ben W. Jongbloed. 2010. “Who Matters to Universities? A Stakeholder Perspective on Humanities, Arts, and Social Sciences Valorization.” *Higher Education* 59(5):567–588.

Berg, Marc. 1995. *Rationalizing Medical Work: Decision-Support Techniques and Medical Practices*. Cambridge, MA: MIT Press.

Berman, Elizabeth Popp. 2012. “Explaining the Move Toward the Market in US Academic Science: How Institutional Logics Can Change Without Institutional Entrepreneurs.” *Theory and Society* 41(3):261–299.

Berman, Elizabeth Popp. 2014. “Not Just Neoliberalism: Economization in US Science and Technology.” *Science, Technology and Human Values* 39(3):397–431.

Betancourt, Joseph. 2002. Cultural Competence and Medical Education: Many Names, Many Perspectives, One Goal.” *Academic Medicine* 81(4):499–501.

Betancourt, Joseph and Alex R. Green. 2010. "Commentary: Linking Cultural Competence Training to Improved Health Outcomes: Perspectives from the Field." *Academic Medicine* 85(4):583–585.

Binder, Amy J. 2000. "Why Do Some Curricular Challenges 'Work' While Others Do Not? The Case of Three Afrocentric Challenges: Atlanta, Washington DC, and New York State." *Sociology of Education* 73(1):69–91.

Binder, Amy J. 2002. *Contentious Curricula: Afrocentrism and Creationism in American Public Schools*. Princeton, NJ: Princeton University Press.

Binder, Amy J. 2018. "College and University Campuses as Sites for Political Formation: A Cultural Organizational Approach." Pp. 220–228 in *Education in a New Society: Renewing the Sociology of Education*, edited by Scott Davies and Jal Mehta. Chicago, IL: University of Chicago Press.

Binder, Amy J., Daniel Davis, and Nicholas Bloom. 2016. "Career Funneling: How Elite Students Learn to Define and Desire 'Prestigious' Jobs." *Sociology of Education* 89(1):20–39.

Bloom, Samuel W. 1959. "The Role of the Sociologist in Medical Education." *Journal of Medical Education* 34(7):667–673.

Bloom, Samuel W. 1988. "Structure and Ideology in Medical Education: An Analysis of Resistance to Change." *Journal of Health and Social Behavior* 29(2):294–306.

Bloom, Samuel W. 2002. *The Word as Scalpel: History of Medical Sociology*. Oxford: Oxford University Press.

Bloom, Samuel W., Howard B. Kaplan, and William T. Lhamon. 1960. "From Art to Science: An Experiment in Teaching the Psychosocial Aspects of the Doctor-Patient Relationship." *Journal of Medical Education* 35(10):933–934.

Bourdieu, Pierre. 1986. "The Forms of Capital." Pp. 241–258 in *Handbook of Theory and Research for the Sociology of Education*, edited by J.G. Richardson. New York, NY: Greenwood Press.

Bourdieu, Pierre and Jean-Claude Passeron. 1990. R*eproduction in Education, Society and Culture*. Thousand Oaks, CA: Sage.

Bosk, Charles L. 1979. *Forgive and Remember: Managing Medical Failure*. Chicago, IL: University of Chicago Press.

Bowman, Nicholas A. and Michael N. Bastedo. 2010. "Anchoring Effects on World University Rankings: Exploring Biases in Reputation Scores." *Higher Education* 61(4):431–444.

Brint, Steven. 2002. *The Future of the City of Intellect: The Changing American University*. Palo Alto, CA: Stanford University Press.

Brint, Steven, Mark Riddle, Lori Turk-Bicakci, and Charles S. Levy. 2005. "From the Liberal to the Practical Arts in American Colleges and Universities: Organizational Analysis and Curricular Change." *The Journal of Higher Education* 76(2):151–180.

Brint, Steven, Kristopher Proctor, Robert A. Hanneman, Kerry Mulligan, Matthew B. Rotondi, and Scott P. Murphy. 2011. "Who Are the Early Adopters of New Academic Fields? Comparing Four Perspectives on the Institutionalization of Degree Granting Programs in US Four-Year Colleges and Universities." *Higher Education* 61(5):563–585.

Brintnall, Michael. 2012. "National Endowment for the Humanities, Public Witness Testimony Submitted to the Interior, Environment, and Related Agencies Subcommittee." Committee on Appropriations, U.S. House of Representatives, House Congressional Testimony (www.nhalliance.org/advocacy/testimony/congressional-testimony-fy-2012-neh.shtml).

Bromley, Elizabeth and Joel Braslow. 2008. "Teaching Critical Thinking in Psychiatric Training: A Role for the Social Sciences." *American Journal of Psychiatry* 165(11):1396–1401.

Brooks, Peter. 2015. *The Humanities and Public Life*. New York, NY: Fordham University.

Brosnan, Caragh. 2010. "Making Sense of Differences Between Medical Schools Through Bourdieu's Concept of 'Field'." *Medical Education* 44(6):645–652.

Brosnan, Caragh and Mike Michael. 2014. "Enacting the 'Neuro' in Practice: Translational Research, Adhesion and the Promise of Porosity." *Social Studies of Science* 44(5):680–700.

Brown, Phil, Brian Mayer, Stephen Zavestoski, Theo Luebke, Joshua Mandelbaum, and Sabrina McCormick. 2003. "The Health Politics of Asthma: Environmental Justice and Collective Illness Experience in the United States." *Social Science and Medicine* 57(3):453–464.

Brown, Tony N. 2000. "Being Black and Feeling Blue: The Mental Health Consequences of Racial Discrimination." *Race and Society* 2(2):117–131.

Brunsma, David L., David G. Embrick, and Jean H. Shin. 2017. "Graduate Students of Color: Race, Racism, and Mentoring in the White Waters of Academia." *Sociology of Race and Ethnicity* 3(1):1–13.

Burns, Chester. 1975. "History in Medical Education: The Development of Current Trends in the United States." *Bulletin of the New York Academy of Medicine* 51(7):851–869.

Butler, Judith. 2015. "Ordinary, Incredulous." Pp. 15–37 in *The Humanities and Public Life*, edited by Peter Brooks. New York, NY: Fordham University.

Byrd, Michael A. and Linda A. Clayton. 2001. "Race, Medicine and Healthcare in the United States: A Historical Survey." *Journal of the National Medical Association* 93(3):11–34.

Camic, Charles, Michele Lamont, and Neil Gross. 2011. *Social Knowledge in the Making*. Chicago, IL: University of Chicago Press.

Casalino, Lawrence P. 2004. "Unfamiliar Tasks, Contested Jurisdictions: The Changing Organization Field of Medical Practice in the United States." *Journal of Health and Social Behavior* 45(Special Issue):S59–S75.

Cassell, Eric J. 1985. *The Healer's Art: A New Approach to the Doctor-Patient.* Cambridge, MA: The MIT Press.

Chambliss, Daniel F. 1996. *Beyond Caring: Doctors, Nurses and the Social Organization of Ethics*. Chicago, IL: University of Chicago Press.

Charmaz, Kathy. 2006. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. Thousand Oaks, CA: Sage Publishing.

Charon, Rita. 2001. "Narrative Medicine: A Model for Empathy, Reflection, Profession, and Trust." *Journal of the American Medical Association* 286(15):1897–1902.

Childress, James C. 1982. *Who Should Decide? Paternalism in Healthcare*. Oxford: Oxford University Press.

Choudhury, Suparna and Jan Slaby. 2011. *Critical Neuroscience: A Handbook of the Social and Cultural Contexts of Neuroscience*. Wiley-Blackwell.

Cicourel, Aaron. 1981. "Language and the Structure of Belief in Medical Communication." *Studia Linguistica* 35(1):71–85.

Clark, Burton R. 1983. *The Higher Education System: Academic Organization in Cross-National Perspective.* Berkeley, CA: University of California Press.

Clark, Chelsi R., Sterett H. Mercer, Virgil Zeigler-Hill, and Brad A. Dufrene. 2012. "Barriers to the Success of Ethnic Minority Students in School Psychology Graduate Programs." *The University of Southern Mississippi School Psychology Review* 41(2):176–192.

Clarke, Adele E., Janet K. Shim, Laura Mamo, Jennifer Ruth Fosket and Jennifer R. Fishman. 2003. "Biomedicalization: Technoscientific Transformations of Health, Illness, and U.S. Biomedicine." *American Sociological Review* 68(2):161–194.

Collins, Harry and Robert Evans. 2007. *Rethinking Expertise*. Chicago, IL: University of Chicago Press.

Conant, James B. 1939. "College Education for the Future Doctor." Speech delivered Feb 13 1939, Folder 277, Dean's Subject File, Harvard Medical School, Harvard Medical Archives, Rare Books Department, Countway Library, Harvard Medical School, Boston, MA.

Conrad, Peter and Schneider, Joseph W. 1977. *Deviance and Medicalization: From Badness to Sickness.* St. Louis, MO: Mosby.

Coulehan, Jack. 2010. "On Humility." *Annals of Internal Medicine* 153(2):200–201.

Coulehan, Jack and Peter C. Williams. 2003. "Conflicting Professional Values in Medical Education." *Cambridge Quarterly of Healthcare Ethics* 12(1):7–20.

Crandall, Sonya J., Geeta George, Gail S. Marion, and Steve Davis. 2003. “Applying Theory to the Design of Cultural Competency Training for Medical Students: A Case Study.” *Academic Medicine* 78(6):588–594.

Cunningham, Brooke A., Vence L. Bonham, Sherril L. Sellers, Hsin-Chieh Yeh, and Lisa Cooper. 2014. "Physicians' Anxiety Due to Uncertainty and Use of Race in Medical Decision Making." *Medical Care* 52(8):728–733.

Cyrus, Kali D. 2017. "Medical Education and the Minority Tax." *Journal of the American Medical Association* 317(18):1833–1834.

DelVecchio Good, Mary Jo, Cara James, Byron J. Good, and Anne E. Becker. 2002. “The Culture of Medicine and Racial, Ethnic and Class Disparities in Health.” Russell Sage Foundation Working Paper #199 (available online).

Demerouti, Evangelia. 1999. *Burnout: A Consequence of Specific Working Conditions Among Human Service and Production Tasks*. Frankfurt: Lang.

Dewey, John. 1897. "My Pedagogic Creed." *The School Journal* 59(2):77–80.

Di Leo, Jeffrey R. 2013. *Corporate Humanities in Higher Education: Moving Beyond the Neoliberal Academy.* London: Palgrave Macmillan.

Diez-Roux, Ana V. and Christina Mair. 2010. “Neighborhoods and Health.” *Annals of the New York Academy of the Sciences* 1186(1):125–145.

DiMaggio, Paul and Walter Powell. 1991. “Introduction.” Pp. 1-38 in *The New Instititutionalism in Organizational Analysis*, edited by Walter Powell and Paul DiMaggio. Chicago, IL: University of Chicago Press.

DiMaggio, Paul J. and Walter Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48(2):147–160.

Dobbin, Frank and Alexandra Kalev. 2007. "Architecture of Inclusion: Evidence from Corporate Diversity Programs." *The Harvard Journal of Law and Gender* 30(2):279–301.

Dolan, Brian. 2010. “History, Medical Humanities, and Medical Education.” *Social History of Medicine* 23(2):393–405.

Donoghue, Frank. 2008. *The Last Professors: The Corporate University and the Fate of the Humanities*. Bronx, NY: Fordham University Press.

Doukas, David J., Lawrence B. McCullough, and Stephen E. Wear. 2010. "Reforming Medical Education in Ethics and Humanities by Finding Common Ground with Abraham Flexner." *Academic Medicine* 85(2):318–323.

Duster, Troy. 2005. "Medicine. Race and Reification in Science." *Science* 307(5712):1050–1051.

Dyrbye, Liselotte N., Colin P. West, Daniel Satele, Sonja Boone, Litjen Tan, Jeff Sloan, and Tait D. Shanafelt. 2014. "Burnout Among U.S. Medical Students, Residents, and Early Career Physicians Relative to the General U.S. Population." *Academic Medicine* 89(3):443–451.

Edelman, Lauren B. 1992. "Legal Ambiguity and Symbolic Structures: Organizational Mediation of Civil Rights Law." *American Journal of Sociology* 97(6):1531–1576.

Engelhardt, H. Tristam. 1986. *The Foundations of Bioethics*. Oxford: Oxford University Press.

Engelhardt, H. Tristram. 2001. "Managed Care and the Deprofessionalization of Medicine. Pp. *The Ethics of Managed Care: Professional Integrity and Patient Rights* edited by W.B. Bondeson and J.W. Jones. Amsterdam: Kluwer Academic Publishers.

Epstein, Ronald M. and Richard L. Street. 2011. "The Values and Value of Patient-Centered Care." *Annals of Family Medicine* 9(2):100–103.

Epstein, Steven. 2007. *Inclusion: The Politics of Difference in Medical Research*. Chicago, IL: University of Chicago Press.

Evans, John H. 2002. *Playing God? Human Genetic Engineering and the Rationalization of Public Bioethical Debate.* Chicago, IL: University of Chicago Press.

Evans, John H. 2005. "Stratification in Knowledge Production: Author Prestige and the Influence on American Academic Debate." *Poetics* 33(1):111–133.

Evans, John H. 2012. *The History and Future of Bioethics: A Sociological View*. Oxford: Oxford University Press.

Feagin, Joe R., and Zinobia Bennefield. 2014. "Systemic Racism and U.S. Healthcare." *Social Science and Medicine* 103(1):7–14.

Fischer, Susan and Alexandra Dundas Todd. 1983. *The Social Organization of Doctor-Patient Communication*. Norwood, NJ: Ablex.

Fitzgerald, Des, Melissa M. Littlefield, Kasper J. Knudsen, James Tonks, and Martin J. Dietz. 2014. "Ambivalence, Equivocation and the Politics of Experimental Knowledge: A Transdisciplinary Neuroscience Encounter." *Social Studies of Science* 44(5):453–473.

Flexner, Abraham. 1910. *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching.* Bulletin Number Four. New York, NY: The Carnegie Foundation.

Flinders, David J., Nel Noddings, and Stephen J. Thornton. 1986. "The Null Curriculum: Its Theoretical Basis and Practical Implications." *Curriculum Inquiry* 16(1):33–42.

Foucault, Michael. 1963. *The Birth of a Clinic: The Archaeology of Medical Perception*. New York, NY: Vintage Press.

Fox, Renee. 1957. "Training for Uncertainty." Pp. 207-241 in *The Student-Physician: Introductory Studies in the Sociology of Medical Educatio*n edited by Merton, Robert K., George G. Reader, and Patricia L. Kendall. Cambridge, MA: Harvard University Press.

Fox, Renee. 2005. "Becoming a Physician: Cultural Competence and the Culture of Medicine." *New England Journal of Medicine* 353(13):1316–1319.

Freidson, Eliot. 1970. *Profession of Medicine: A Study of the Sociology of Applied Knowledge*. New York, NY: Dodd, Mead.

Freidson, Eliot. 1984. "The Changing Nature of Professional Control." *Annual Review of Sociology* 10:1–20.

Frickel, Scott and Neil Gross. 2005. "A General Theory of Scientific/Intellectual Movements." *American Sociological Review* 70(2):204–232.

Frickel, Scott and Kelly Moore. 2006. *The New Political Sociology of Science: Institutions, Networks, and Power*. Madison, WI: University of Wisconsin Press.

Frickel, Scott, Sahra Gibbon, Jeff Howard, Joanna Kemper, Gwen Ottinger, and David J. Hess. 2010. "Undone Science: Charting Social Movement and Civil Society Challenges to Research Agenda Setting." *Science Technology and Human Values* 35(4):444–473.

Frickel, Scott, Rebekah Torcasso, and Annika Anderson. 2015. "The Organization of Expert Activism: Shadow Mobilization in Two Social Movements." *Mobilization: An International Quarterly* 20(3):305–323.

Gamble, Vanessa N. 1997. "Under the Shadow of Tuskegee: African Americans and Healthcare." *American Journal of Public Health* 87(11):1773–1778.

Glaser, Barney G. and Anselm L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine Publishing Company.

Good, Byron. 1994. *Medicine, Rationality, and Experience: An Anthropological Perspective.* Cambridge: Cambridge University Press.

Good, Byron and Mary-Jo DelVecchio Good. 1989. "Disabling Practitioners: Hazards of Learning to be a Doctor in American Medical Education." *American Journal of Orthopsychiatry* 59(3):303–321.

Gordon, Deborah. 1988. “Clinical Science and Clinical Expertise: Changing Boundaries Between Art and Science in Medicine.” Pp. 257–295 in *Biomedicine Examined* edited by Margaret Lock and Deborah Gordon. Amsterdam: Kluwer-Academic.

Gregg, Joseph and Somnath Saha. 2006. "Losing Culture on the Way to Competence: The Use and Misuse of Culture in Medical Education." *Academic Medicine* 81(6):542–547.

Greil, Arthur L., Julia McQuillan, Karina M. Shreffler, Katherine M. Johnson, and Kathleen S. Slauson-Blevins. 2011. "Race-Ethnicity and Medical Services for Infertility: Stratified Reproduction in a Population-Based Sample of U.S. Women." *Journal of Health and Social Behavior* 52(4):493–509.

Guttentag, Otto E. 1960. "A Couse Entitled 'The Medical Attitude' An Orientation in the Foundations of Medical Thought." *Journal of Medical Education* 35(10):903–907.

Hackett, Edward J., Olga Amsterdamska, Michael Lynch and Judy Wajcman, eds. 2008. *The Handbook of Science and Technology Studies*. Cambridge, MA: MIT Press.

Hafferty, Frederic W. 1988. "Cadaver Stories and the Emotional Socialization of Medical Students." *Journal of Health and Social Behavior* 29(4):344–356.

Hafferty, Frederic W. 1998. “Beyond Curriculum Reform: Confronting Medicine’s Hidden Curriculum. *Academic Medicine* 73(1):193–197.

Hafferty, Frederic W. 2000. “Reconfiguring the Sociology of Medical Education: Emerging Topics and Pressing Issues.” Pp. 238–257 in *Handbook of Medical Sociology* (5th Ed.), edited by C. Bird, P. Conrad, and A. Fremont. Upper Saddle River, NJ: Prentice Hall.

Hafferty, Frederic W. and Joseph F. O'Donnell. 2015. *The Hidden Curriculum in Health Professional Education*. Hanover, NH: Dartmouth College Press.

Hallett, Timothy and Ventresca, Marc. 2006. “Inhabited Institutions: Social Interactions and Organizational Forms in Gouldner’s Patterns of Industrial Bureaucracy.” *Theory and Society* 35(2):213–236.

Haug, Marie R. 1988. “A Re-examination of the Hypothesis of Physician Deprofessionalization.” *Milbank Memorial Fund Quarterly* 66(2):48–56.

Heritage, John and Doug Maynard. 2006. “Problems and Prospects in the Study of Physician-Patient Interaction.” *Annual Review of Sociology* 32:351–371.

Hirshfield, Laura E., Rachel Yudkowsky, and Yoon Soo Park. 2019. "Pre-medical Majors in the Humanities and Social Sciences: Impact on Communication Skills and Specialty Choice." *Medical Education* 53(4):408–416.

Hoffman, Steve G. 2015. "Thinking Science with Thinking Machines: The Multiple Realities of Basic and Applied Knowledge in a Research Border Zone." *Social Studies of Science* 45(2):1–28.

Holmes, Seth M., Angela Jenks, and Scott Stonington. 2011. "Clinical Subjectivation: Anthropologies of Contemporary Biomedical Training." *Culture, Medicine, and Psychiatry* 35(2):105–112.

Holmes, Seth M. and Maya Pointe. 2013. "En-case-ing the Patient: Disciplining Uncertainty in Medical Student Patient Presentations." *Culture Medicine and Psychiatry* 35(1):163–182.

Institute of Medicine, Committee on Quality of Health Care in America. 2001. *Crossing the Quality Chasm: A New Health System for the 21st Century.* Washington, DC: National Academy Press.

Irani, Lily. 2015. "Hackathons and the Making of Entrepreneurial Citizenship." *Science, Technology, and Human Values* 40(5):799–824.

Jaco, E. Gartly. 1960. "Problems and Prospects of the Social Sciences in Medical Education." *Journal of Health and Social Behavior* 1(1):29–34.

Jacobs, Jerry A. and Scott Frickel. 2009. "Interdisciplinarity: A Critical Assessment." *Annual Review of Sociology* 35:43–65.

Jackson, Pamela Brayboy, Peggy Thoits, and Howard F. Taylor. 1995. "Composition of the Workplace and Psychological Well-being: The Effects of Tokenism on America's Black Elite." *Social Forces* 74(2):543–557.

Jenks, Angela. 2011. "From 'List of Traits' to 'Openmindedness': Emerging Issues in Cultural Competence Education." *Culture, Medicine and Psychiatry* 35(2):209–235.

Jenkins, Tania M. 2018. "Dual Autonomies, Divergent Approaches: How Stratification in Medical Education Shapes Approaches to Patient Care." *Journal of Health and Social Behavior* 59(2):268–282.

Johnson, Cathryn, Timothy J. Dowd, and Cecilia Ridgeway. 2006. "Legitimacy as a Social Process." *Annual Review of Sociology* 32:53–78.

Joseph, Tiffany D., and Laura E. Hirshfield. 2011. "'Why Don't You Get Somebody New to Do It?' Race and Cultural Taxation in the Academy." *Ethnic and Racial Studies* 34(1):121–141.

Kai, Joe, Ruth Bridgewater and John Spencer. 2001. "'Just Think of TB and Asians,' That's All I Ever Hear': Medical Learners' Views About Training to Work in an Ethnically Diverse Society." *Medical Education* 35(3):250–256.

Karabel, Jerome. 2005. *The Chosen: The Hidden History of Admission and Exclusion at Harvard, Yale, and Princeton*. New York, NY: Houghton Mifflin Company.

Kellogg, Katherine C. 2011. *Challenging Operations: Medical Reform and Resistance in Surgery*. Chicago, IL: University of Chicago Press.

Kirch, Darrell G. 2012. "A Word From the President: MCAT2015: An Open Letter to Pre-Med Students." *AAMC Reporter* (March Issue).

Kirmayer, Laurence. 2012. "Cultural Competence and Evidence-based Practice in Mental Health: Epistemic Communities and the Politics of Pluralism." *Social Science and Medicine* 75(3):249–256.

Kleinman, Arthur. 1980. *Patients and Healers in the Context of Culture: An Exploration of the Borderland Between Anthropology, Medicine, and Psychiatry.* University of California Press.

Kleinman, Arthur, Leon Eisenberg, and Byron Good. 1978. "Culture, Illness, and Care: Clinical Lessons from Anthropological and Cross-Cultural Research." *Annals of Internal Medicine* 88(3):251–258.

Kuh, George D. 1999. "How Are We Doing? Tracking the Quality of the Undergraduate Experience, 1960s to Present." *The Review of Higher Education* 22(2):99–120.

Lamont, Michele. 2009. *How Professors Think.* Cambridge, MA: Harvard University Press.

Lerma, Veronica, Laura T. Hamilton, Kelly Nielsen. 2019. "Racialized Equity Labor, University Appropriation, and Student Resistance." *Social Problems* Online First (https://doi.org/10.1093/socpro/spz011)

Lewin, Tamar. 2013. "As Interest Fades in the Humanities, Colleges Worry." *New York Times* (October 30, 2013).

Liaison Committee on Medical Education. 2018. "Functions and Structure of a Medical School: Standards for Accredidation of Medical Education Programs Leading to the MD Degree." *Association of American Medical Colleges.* Washington, DC: AAMC.

Light, Donald W. 1988. "Toward a New Sociology of Medical Education." *Journal of Health and Social Behavior* 29(3):307–322.

Light, Donald W. 1992. "Introduction: Strengthening Ties Between Specialties and Disciplines." *American Journal of Sociology* 97(4):909–918.

Light, Donald W. 2000. "The Medical Profession and Organizational Change: From Professional Dominance to Countervailing Power." Pp. 210–225 in *Handbook of Medical Sociology*, edited by Chloe E. Bird, Peter Conrad, and Allen M. Fremont. New York, NY: Prentice Hall.

Light, Donald W. 2004. "Introduction: Ironies of Success–A New History of the American Health Care 'System.'" *Journal of Health and Social Behavior* 45(1):1–24.

Link, Bruce G. and Jo Phelan. 1995. “Social Conditions as Fundamental Causes of Disease.” *Journal of Health and Social Behavior.* (Extra Issue):80–94.

Lofland, John, David Snow, Leon Anderson, and Lyn H. Lofland. 1995. *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis*. Wadsworth Publishing.

Loss, Christopher P. 2017. "Universities in America Since 1945." *Oxford Research Encyclopedia of American History*, edited by Jon Butler. New York, NY: Oxford University Press.

Ludmerer, Kenneth M. 1985. *Learning to Heal: The Development of American Medical Education*. New York: Basic Books.

Ludmerer, Kenneth M. 1999. *Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care*. New York, NY: Oxford University Press.

Margolis, Eric and Mary Romero. 1998. “The Department is Very Male, Very White, Very Old, and Very Conservative: The Functioning of the Hidden Curriculum in Graduate Sociology Departments.” *Harvard Educational Review* 68(1):1–32.

Martimianakis, Maria Athina, Barret Michalec, Justin Lam, Carrie Cartmill, Janelle S. Taylor, and Frederic W. Hafferty. 2015. "Humanism, the Hidden Curriculum, and Educational Reform: A Scoping Review and Thematic Analysis." *Academic Medicine* 90(11):S5–S13.

McGaghie, William C. 2002. "Assessing Readiness for Medical Education: Evolution of the Medical College Admission Test." *Journal of the American Medical Association* 288(9):1085–1090.

McKinlay, John B. and Lisa Marceau. 2002. “The End of the Golden Age of Doctoring.” Pp.189–214 in *The Sociology of Health and Illness: Critical Perspectives*, 7th Edition. New York, NY: Worth Publishers.

Mechanic, David. 1990. “The Role of Sociology in Health Affairs.” *Health Affairs* 9(1):85–97.

Mechanic, David and Donna D. McAlpine. 2010. “Sociology of Health Care Reform: Building on Research and Analysis to Improve Health Care.” *Journal of Health and Social Behavior* 51 (Special Issue):S147–S159.

Menand, Louis. 2010. *The Marketplace of Ideas: Reform and Resistance in the American University*. New York, NY: W.W. Norton & Company.

Menchik, Daniel. 2017. "Interdependent Career Types and Divergent Standpoints on the Use of Advanced Technology in Medicine." *Journal of Health and Social Behavior* 58(4):488–502.

Menchik, Daniel and David Meltzer. 2010. “The Cultivation of Esteem and Retrieval of Scientific Knowledge in Physician Networks.” *Journal of Health and Social Behavior* 51(1):137–152.

Merton, Robert K., George G. Reader, and Patricia L. Kendall. 1957. *The Student-Physician: Introductory Studies in the Sociology of Medical Education*. Cambridge, MA: Harvard University Press.

Metzl, Jonathan M. and Helena Hansen. 2014. "Structural Competency: Theorizing a New Medical Engagement with Stigma and Inequality." *Social Science and Medicine* 103(1):126–133.

Meyer, John W. and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83(4):340–363.

Michael, Mike, S. Wainwright and C. Williams. 2005. "Temporality and Prudence: On Stem Cells as 'Phronesic Things'." *Configurations* 13(3):373–394.

Michalec, Barret, Monica Cuddy, Phillip Hafferty, Mark D. Hanson, Steven L. Kanter, Dawn Littleton, Tina Martimianakis, Robin Michaels, and Frederic W. Hafferty. 2018. "It's Happening Sooner Than You Think: Spotlighting the Premededical Realm(s)." *Medical Education* 52(4):359–361.

Michalec, Barret, Tina Martimianakis, Jon Tilburt, and Frederic W. Hafferty. 2017. "Why It's Unjust to Expect Location-specific, Language-specific, or Population Specific Service from Students with Underrepresented Minority or Low-income Backgrounds." *AMA Journal of Ethics* 19(3):238–244.

Mizrachi, Nissim, Israel Drori and Renee R. Anspach. 2007. "Repertoires of Trust: The Practice of Trust in a Multinational Organization amid Political Conflict." *American Sociological Review* 72(1):143–165.

Montoya, Michael J. 2011. *Making the Mexican Diabetic: Race, Science, and the Genetics of Inequality*. Berkeley, CA: University of California Press.

Morning, Ann. 2011. *The Nature of Race: How Scientists Think and Teach About Human Difference*. Berkeley, CA: University of California Press.

Morrison, Emory, and Douglas Grbic. 2015. "Dimensions of Diversity and Perception of having Learned From Individuals From Different Backgrounds: The Particular Importance of Racial Diversity." *Academic Medicine* 90(7):937–940.

Murphy, Marie. 2014. "Hiding in Plain Sight: The Production of Heteronormativity in Medical Education." *Journal of Contemporary Ethnography* 45(3):256–289.

National Institute of Child Health and Human Development. 1970. "Behavioral Sciences and Medical Education: A Report of Four Conferences." U.S. Department of Health, Education, and Welfare. Public Health Service. National Institutes of Health. DHEW Publication No. (NIH) 72–41.

Nettleton, Sarah. 2004. "The Emergence of E-Scaped Medicine?" *Sociology* 38(4):661–679.

O'Connell, Thomas F., Sandra A. Ham, Theodore G. Hart, Farr A. Curlin, John D. Yoon. 2018. "A National Longitudinal Survey of Medical Students' Intentions to Practice Among the Underserved." *Academic Medicine* 93(1):90–97.

O'Guinn, Thomas C. and Albert M. Muniz, Jr. 2010. "Toward a Sociological Model of Brands." Pp. 133-155 in *Brands and Brand Management: Contemporary Research Perspectives*, edited by Barbara Loken, Rohini Ahluwalia, and Michael J. Houston.

Oliver, Christine. 1992. "The Antecedents of Deinstitutionalization." *Organization Studies* 13(4):563–588.

Oliver, Christine. 1997. "Sustainable Competitive Advantage: Combining Institutional and Resource-Based Views." *Strategic Management Journal* 18(9):697–713.

Omi, Michael, and Howard Winant. 1994. *Racial Formation in the United States: From the 1960s to the 1990s.* New York, NY: Routledge.

Ong, Maria, Carol Wright, Lorelle L. Espinosa, and Gary Orfield. 2011. "Inside the Double Bind: A Synthesis of Empirical Research on Undergraduate and Graduate Women of Color in Science, Technology, Engineering, and Mathematics." *Harvard Educational Review* 81(2):172–209.

Orzechowicz, David. 2008. "Privileged Emotion Managers: The Case of Actors." *Social Psychology Quarterly* 71(2):143–156.

Padilla, Amado M. 1994. "Ethnic Minority Scholars, Research, and Mentoring: Current and Future Issues." *Educational Researcher* 23(4):24–27.

Parsons, Talcott. 1951. *The Social System.* New York, NY: Free Press.

Pedersen, Reidar. 2010. "Empathy Development in Medical Education: A Critical Review." *Medical Teaching* 32(7):593–600.

Pellegrino, Edmund. 1975. "Medical History and Medical Education: Points of Engagement." *Clio Medica* 10(3):295–303.

Pellegrino, Edmund. 1985. "The Virtuous Physician and the Ethics of Medicine." Pp. 237–255 in *Virtue and Medicine: Explanations in the Character of Medicine*, *Philosophy and Medicine Book Series*, edited by E.E. Shelp. Dordrecht: Reidel Publishing Company.

Petersdorf, Richard G. and A. R. Feinstein. 1981. "An Informal Appraisal of the Current Status of 'Medical Sociology'." Pp. 27–45 *The Relevance of Social Science in Medicine*, edited by Leon Eisenberg and Arthur Kleinman. Dordrecht: Reidel Publishing Company.

Rabinow, Paul and Gaymon Bennett. 2012. *Designing Human Practices: An Experiment with Synthetic Biology*. Chicago, IL: University of Chicago Press.

Rabow, Michael W., Marissa Lapedis, Anat Feingold, Mark Thomas, and Rachel N. Remen. 2016. "Insisting on the Healer's Art: The Implications of Required Participation in a Medical School Course on Values and Humanism." *Teaching and Learning in Medicine* 28(1):61–71.

Raz, Aviad and Judith Fadlon. 2006. "'We Came to Talk with the People Behind the Disease:' Communication and Control in Medical Education," *Culture, Medicine and Psychiatry* 30(1):55–75.

Riess, Helen and Liz Neporent. 2018. *The Empathy Effect: Seven Neuroscience-Based Keys for Transforming the Way We Live, Love, Work, and Connect Across Differences*. Boston, MA: Sounds True Publishing.

Ripp, Kelsey and Lundy Braun. 2017. "Race/Ethnicity in Medical Education: An Analysis of a Question Bank for Step 1 of the USMLE." *Teaching and Learning in Medicine* 29(2):115–122.

Rose, Nikolas. 1992. "Engineering the Human Soul: Analyzing Psychological Expertise." *Science in Context* 5(3):351–369.

Ruis, A.R. and Robert N. Golden. 2008. "The Schism Between Medical and Public Health Education: A Historical Perspective." *Academic Medicine* 83(12):1153–1157.

Rylance, Rick. 2010. *Literature and the Public Good.* New York, NY: Oxford University Press.

Sahlin-Andersson, Kerstin and Lars Engwall. 2002. *The Expansion of Management Knowledge: Carriers, Flows and Sources*. Palo Alto, CA: Stanford University Press.

Saunders, Barry F. and Lundy Braun. 2017. "Reforming the Use of Race in Medical Pedagogy." *American Journal of Bioethics* 17(9):50–52.

Scrambler, Gordon. 2008. *Sociology as Applied to Medicine*. London: Saunders Ltd.

Shanafelt, Tait D., Omar Hasan, Liselotte N. Dyrbye, Christine Sinksy, Daniel Satele, Jeff Sloan, and Colin P. West. 2015. "Changes in Burnout and Satisfaction with Work-Life Balance in Physicians and the General U.S. Working Population Between 2011 and 2014." *Mayo Clinic Proceedings* 90(12):1600–1613.

Shapin, Steven. 1992. "Discipline and Bounding: The History and Sociology of Science as Seen through the Externalism-Internalism Debate." *History of Science* 30(4):333–369.

Sharma, Malika and Ayelet Kuper. 2017. "The Elephant in the Room: Talking Race in Medical Education." *Advances in Health Sciences Education* 22(3):761–764.

Shim, Janet K. 2014. *Heart-Sick: The Politics of Risk, Inequality, and Heart Disease*. New York, NY: New York University Press.

Sigerist, Henry. 1939. "Medical History in the Medical Schools of the United States." *Bulletin of the History of Medicine* 7(6):627–662

Slaughter, Sheila and Leslie Rhoades. 1997. *Academic Capitalism, Politics, Policies, and the Entrepreneurial University.* Baltimore, MD: Johns Hopkins University Press.

Small, Helen H. 2016. *The Value of the Humanities*. New York, NY: Oxford University Press.

Smedley, B. D., Stith, A. Y., Nelson, A. R., and Institute of Medicine (U.S.) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. (2003). *Unequal treatment: Confronting racial and ethnic disparities in health care.* Washington, D.C.: National Academy Press.

Starr, Paul. 1982. *The Social Transformation of American Medicine*. New York, NY: Basic Books.

Stepanikova, Irena. 2010. "Racial-Ethnic Biases, Time Pressure, and Medical Decisions." *Journal of Health and Social Behavior* 53(3):329–343.

Steinmetz, George, ed. 2005. *The Politics of Method in the Human Sciences: Positivism and Its Epistemological Others*. Durham, N.C.: Duke University Press.

Stevens, Mitchell L. 2007. *Creating a Class: College Admissions and the Education of Elites*. Cambridge, MA: Harvard University Press.

Stevens, Mitchell L., Cynthia Miller-Idriss, and Seteney Shami. 2018. *Seeing the World: How US Universities Make Knowledge in a Global Era.* Princeton, NJ: Princeton University Press.

Stevens, Mitchell L., Elizabeth Armstrong, and Richard Arum. 2008. "Sieve, Incubator, Temple, Hub: Empirical and Conceptual Advances in the Sociology of Higher Education." *Annual Review of Sociology* 34:127–151.

Stonington, Scott D., Seth M. Holmes, Helena Hansen, Jeremy A. Green, Keith A. Wailoo, Debra Malina, Stephen Morrissey, Paul E. Farmer, Michael G. Marmot. 2018. "Case Studies in Social Medicine: Attending to Structural Forces in Clinical Practice." *New England Journal of Medicine* 379(19):1958–1961.

Straus, Robert. 1957. "The Nature and Status of Medical Sociology." *American Sociological Review* 22(2):200–204.

Strauss, Anselm. 1978. "A Social Worlds Perspective." *Studies in Symbolic Interaction* 1(1):119–128.

Swidler, Ann and Jorge Arditi. 1994. "The New Sociology of Knowledge." *Annual Review of Sociology* 20:305–329.

Sidney, Sir Philip. 1595. "The Defense of Poesy." In *The Defense of Poesy Otherwise Known As An Apology For Poetry*, edited by Albert S. Cook. Boston, MA: Ginn and Company.

Taylor, Janelle. 2003. "Confronting 'Culture' in Medicine's 'Culture of No Culture'." *Academic Medicine* 7(6):555–559.

Thomasma, David C. and Edmund D. Pellegrino. 1981. "Philosophy of Medicine as the Source for Medical Ethics." *Metamedicine* 2(1):5–11.

Timmermans, Stefan and Marc Berg. 2003. *The Gold Standard: Evidence-Based Medicine and the Politics of Standardization*. Philadelphia, PA: Temple University Press.

Torres, Lucas, Mark W. Driscoll and Anthony L. Burrow. 2010. "Racial Microaggressions and Psychological Functioning among Highly Achieving African-Americans: A Mixed-methods Approach." *Journal of Social and Clinical Psychology* 29(10):1074–1099.

Toulmin, Stephen. 1988. "Medical Ethics in its American Context: An Historical Survey." *Annals of New York Academic Science* 530(1):7–15.

Touya de Marienne, Eric. 2016. *The Case for the Humanities: Pedagogy, Polity, and Interdisciplinarity*. Baltimore, MD: Rowman and Littlefield Publishers.

Trow, Martin. 2010. "The Campus as a Context for Learning." Pp. 303–318 in *Martin Trow: Twentieth-Century Higher Education: Elite to Mass to Universal*, edited by Michael Burrage. Baltimore, MD: Johns Hopkins University Press.

Tsai, Jennifer, Neil Baldwin, Laura Ucik, Christopher Hasslinger, and George Paul. 2016. "Race Matters? Examining and Rethinking Race Portrayal in Preclinical Medical Education." *Academic Medicine* 91(7):916–920.

Tweedy, Damon. 2015. *Black Man in a White Coat*. New York, NY: Picador.

Tyler, David B. 1960. "A University is an Institution That Has Trouble With its Medical School." *Journal of Medical Education* 35(8):791–795.

Tzreciak, Stephen and Anthony Mazzarelli. 2019. *Compassionomics: The Revolutionary Scientific Evidence that Caring Makes a Difference*. New York, NY: Studer Group.

Underman, Kelly. 2015. "Playing Doctor: Simulation in Medical School as Affective Practice." *Social Science and Medicine* 136(1):180–188.

Underman, Kelly, and Laura E. Hirshfield. 2016. "Detached Concern? Emotional Socialization in Twenty-first Century Medical Education." *Social Science and Medicine* 160(1):94–101.

van Ryn, Michelle, and Steven S. Fu. 2003. "Paved with Good Intentions: Do Public Health and Human Service Providers Contribute to Racial/Ethnic Disparities in Health?" *American Journal of Public Health* 93(2):248–255.

van Ryn, Michelle, Diana J. Burgess, John F. Dovidio, Sean M. Phelan, Somnath Saha, Jennifer Malat, Joan M. Griffin, Steven S. Fu, and Sylvia Perry. 2011. "The Impact of Racism on Clinician Cognition, Behavior, and Clinical Decision Making." *DuBois Review* 8(1):199–218.

van Ryn, Michelle, Rachel Hardeman, Sean M. Phelan, Diana J. Burgess, John F. Dovidio, Jeph Herrin, Sara E. Burke, David B. Nelson, Sylvi Perry, Mark Yeazel, and Julia M. Przedworski. 2015. "Medical School Experiences Associated with Change in Implicit Racial Bias Among 3547 Students: A Medical Student CHANGES Study Report." *Journal of General Internal Medicine* 30(12):1748–1756.

Vinson, Alexandra. 2016. "'Constrained Collaboration': Patient Empowerment Discourse as Resource for Countervailing Power." *Sociology of Health and Illness* 38(8):1364–1378.

Viseu, Ana. 2015. "Caring For Nanotechnology? Being an Integrated Social Scientist." *Social Studies of Science* 45(5):625–664.

Waitzkin, Howard. 1991. *Politics of Medical Encounters: How Patients and Doctors Deal with Social Problems*. New Haven, CT: Yale University Press.

Waitzkin, Howard. 2000. "Changing Patient-Physician Relationships in the Changing Health-Policy Environment." Pp. 271–283 in C. Bird, P. Conrad and A. Fremont (Eds.) Handbook of Medical Sociology. Upper Saddle River. NJ: Prentice-Hall.

Wallace, Jean E., Jane B. Lemaire and William A. Ghali. 2009. "Physician Wellness: A Missing Quality Indicator." *Lancet* 374:1714–1721.

Waring, Justin, Fiona Marshall, Simon Bishop, Opinder Sahota, Marion Walker, Graeme Currie, Rebecca Fisher, and Tony Avery. 2014. *An Ethnographic Study of Knowledge Sharing Across the Boundaries Between Care Processes, Services, and Organizations: The Contributions to 'Safe' Hospital Discharge.* Health Services and Delivery Research No. 2.29. London: National Institute for Health Research.

Wear, Delese. 2003. "Insurgent Multiculturalism: Rethinking How and Why We Teach Culture in Medical Education." *Academic Medicine* 78(6):549–554.

Weaver, Warren. 1960. "Medicine: The New Science and the Old Art." *Journal of Medical Education* 35(4):313–318.

Wegar, Katarina. 1992. "Sociology in American Medical Education Since the 1960s: The Rhetoric of Reform." *Social Science and Medicine* 35(8):959–965.

West, Candace. 1984. *Routine Complications: Troubles with Talk Between Doctors and Patients.* Bloomington, IN: Indiana University Press.

West, Colin P., Tait D. Shanafelt and Joseph C. Kolars. 2011. "Quality of Life, Burnout, Educational Debt, and Medical Knowledge among Internal Medicine Residents." *Journal of the American Medical Association* 306(9):952–960.

White Coats 4 Black Lives. 2018. "Racial Justice Report Card." Retrieved May 4, 2018 (http://whitecoats4blacklives.org/wp-content/uploads/2018/04/WC4BL-Racial-Justice-Report-Card-2018-Full-Report-2.pdf).

Wieseltier, Leon. 2013. "Perhaps Culture is Now the Counterculture: A Defense of the Humanities." *The New Republic* (May 27, 2013).

Willen and Carpenter Song. 2013. "Cultural Competence in Action: 'Lifting the Hood' on Four Case Studies in Medical Education." *Culture, Medicine and Pyschiatry* 37(2):241–252.

Willard, William R. 1960. "New Medical Schools: Some Preliminary Considerations." *Journal of Medical Education* 35(2):95–107.

Williams, David R. 2012. "Miles to Go Before We Sleep: Racial Inequalities in Health." *Journal of Health and Social Behavior* 53(3):279–295.

Williams, David R. and Selena Mohammed. 2009. "Discrimination and Racial Disparities in Health: Evidence and Needed Research." *Journal of Behavioral Medicine* 32(1):20–47.

Williams, David R., Selena Mohammed, Jacinta Leavell and Chiquita Collins. 2010. "Race, Socioeconomic Status, and Health: Complexities, Ongoing Challenges, and Research Opportunities." *Annals of the New York Academy of Sciences* 1186(1):69–101.

Williams, Stacy J., Laura Pecenco, and Mary Blair-Loy. 2013. "Medical Professions: The Status of Women and Men." Vol. 1. La Jolla, CA: UC San Diego.

Wilson-Kovacs, D.M. and C. Hauskeller. 2012. "The Clinician Scientist: Professional Dynamics in Clinical Stem Cell Research." *Sociology of Health and Illness* 34(4):497–512.

Zhang, Liang. 2005. "Advance to Graduate Education: The Effect of College Quality and Undergraduate Majors." *The Review of Higher Education* 28(3):313–338.

Zola, Irving. 1973. "Medicine as an Institution of Social Control." *American Sociological Review* 20(4):487–504.

Zusman, Ami. 2005. "Challenges Facing Higher Education in the Twenty-First Century." Pp. 115–160 in *American Higher Education in the Twenty-First Century*, edited by Philip G. Altbach, Robert O. Berdahl, and Patricia J. Gumport. Baltimore, MD: Johns Hopkins University Press.