"IN TRAINING"
SYSTEMS OF POWER AND EXPLOITATION
IN THE MAKING OF THE
AMERICAN PHYSICIAN

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ABSTRACT

Residency training marks a period of rapid learning in the career of a physician. As new physicians are swiftly acquiring medical knowledge and practicing new clinical skills, they are also undergoing intense professionalization and socialization, which influences their understanding of the healthcare system and their role within it. The working conditions of residency training and culture of medicine interact to exploit the labor of trainees. This perpetuates dominance and authority for the institutions that create and sustain these conditions. The history of the development of residency training programs, the Match, and house staff activism in the 1970s illuminate the systems of power operating within graduate medical education. This history produced the GME system we know today that is predicated on self-sacrifice, individualism, and deference to institutional power. As trainees are subject to the practices and beliefs that maintain this system, they internalize and normalize oppression, and in turn enact it upon others as they advance through the hierarchy themselves and acquire more material and social capital. By understanding the history of GME and interrogating these systems, we can begin to imagine a different kind of residency training that might better serve the needs of both learners and the patients they care for. Trauma informed education and critical pedagogy are two lenses that can inform future iterations of graduate medical education. These frameworks offer a different set of values, practices and systems that center healing and aspire to health justice.

Dedicated to the Temple Emergency Medicine Residents

Past and Future

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CHAPTER ONE

INTRODUCTION

Medical training is divided into two primary phases. Undergraduate medical education is the time spent in medical school, first cementing foundational knowledge in organ systems and disease, and then organized in clinical rotations where students learn by participating in direct patient care. Graduate medical education marks a crucial time in the development of an American physician and encompasses residency and sometimes additional fellowship training. New residents and fellows chose a specialty (a branch of medical practice focused on a defined group of patients, diseases, procedures, or values), then enter their clinical training and learn specialty-specific skills. They spend a great deal more time doing direct patient care, under the supervision of attending physicians. Residents acquire progressive autonomy in patient care as they advance in their requisite skills, which are defined by a common set of core competencies, or milestones. Residency is the time when trainees move from the peripheral, observer role of the medical student, to playing among the most critical roles in the care of patients in healthcare settings.

Residency is a time of rapid acquisition of the knowledge and skills to care for patients with increasingly complex medical needs. Trainees learn this new body of theoretical knowledge and its practical applications at the bedside, while also navigating their professional identity development and their growing understanding of the healthcare system, with its offerings and limitations. This learning occurs in the context of powerful hierarchies operating on multiple levels. These include the hierarchies within a clinical team, which is made up of attendings, senior residents and junior residents or "interns," hierarchies within roles such as doctors, nurses

and other support staff, and hierarchies within hospitals themselves, such as between physicians, clinical departments, and hospital administrators.

Residency is also marked by long work hours, and systems limitations that act together to produce a uniquely physically and emotionally demanding environment. During this time, newly minted physicians are constantly learning about the complex interplay between the people in medicine, healthcare institutions, and society itself through both explicit instruction and implicit pedagogy. Throughout the process, trainees receive conflicting messages about their identity in the healthcare space. They are described as learners as well as service providers, and inherent conflicts arise as trainees, their faculty, and their institutions aim to meet both educational and patient care needs.

By specifically exploring exploitation of trainees within this unique training environment, we can improve our understanding of how history, environment and culture impact junior physicians and influence their development at a critical phase. This thesis will touch upon some of the ways the experience of exploitation influences trainees' understanding of patients and provision of medical care but will primarily explore how the residents themselves are impacted and shaped by this experience. In complex systems of power, those with the least access to material and social capital are made most vulnerable. It is outside the scope of this paper to explore all the ways in which academic medical centers, often situated in communities comprised of historically marginalized people, participate in structural violence. Nor will it fully address how trainees and other physicians consciously and unconsciously perpetuate this harm. Focusing on the trainee experience will elucidate some of the ways the current system is sustained and reinforced, while acknowledging the complexity and bidirectionality of oppression.

CHAPTER TWO

HISTORY OF U.S. GRADUATE MEDICAL EDUCATION

William Halstead and the Development of the Modern Residency Training Program

An examination of the history of residency training will frame our understanding of the ways trainees are viewed and used in the healthcare space. The early development of residency training programs has had an outsized and longstanding influence on the current structure of medical training, after a small group of surgeons created the initial system in Baltimore and it spread to other American cities. Residency programs were created by these founders to impart teaching but also to meet the needs of individual faculty members and hospitals. Incredibly long work hours, distinct hierarchies and opaque processes characterized these first surgical residencies. In addition, values of individualism, elitism, and self-sacrifice were revered, shaping the foundation of the graduate medical education system as we know it today.

Surgeon William Halstead is credited with the development of the modern surgical residency training program, which he initially designed and implemented at Johns Hopkins Hospital at the end of the 19th century. Most medical and surgical training programs in North America were modeled after his system, and medical historians argue that his personal struggle with addiction was a major driver in the design of the program (Wright). Halstead and colleagues first became addicted to cocaine while practicing surgery in New York City, which led to a decline in his personal career, a move to Baltimore and the development of an addiction to morphine, thought in part to have been used to manage the impact of cocaine (Wright). As he transitioned to practice in Baltimore, Halstead became known as the "father of a school of safety in surgery," for his focus on methodical and accurate techniques as opposed to speed which had been vaulted as a measure of excellence at the time. The basis of the Halstead School of residency training

was the hierarchical model by which entry level and midlevel trainees were managed by one senior attending. There was also no predefined timeline for completion of training and hence intense competition reigned amongst co-residents for advancement. The hierarchical setup is believed to have allowed Halstead to conceal his impairment as he relied heavily on lower-level trainees to maintain the clinical service and educational program (Wright). As Halstead's early trainees went on to advance and become leaders in the burgeoning field, they brought his model to other cities and grew training "from an uncommon, idiosyncratic experience for elite practitioners to a standardized mandatory education for all American surgeons" (Barr). Halstead's model was also maintained via the significant power differential between supervisor and his trainees, as they were most likely to have the facetime needed to identify his problematic behaviors but also relied on him for access and advancement in the field, a dynamic which largely persists today.

William Osler, who preceded Halstead, is credited with the first surgical training program, and although Halstead's model included many of the essential characteristics that have since come to define residency training, Osler also left his mark. He oversaw five trainees over a period of fifteen years who lived in the hospital. Training timelines were long and inconsistent, ranging from fifteen months to seven years (Wright).

By examining the history of GME we can appreciate how current processes in residency training have been influenced by these early decisions. These training programs were formed in part to spread important advancements in surgical techniques that no doubt improved the care of patients, but also were designed around the needs of a few individuals who individually benefitted from the labor of resident physicians within the hospital, to advance their own careers. The primacy of the gaze of the supervising physician was cemented as trainees strove to compete

with one another to distinguish themselves and advance. The echoes of a culture steeped in competition and individualism persist today. Medical education has a reverence for its own history and early pioneers like Osler and Halstead and their contemporaries are lionized. Portraits of many of these figures line the hallways of academic medical centers (Sivashanker). The development of residency programs in North America has been shaped by these early models of training which have gone on to be normalized, and even celebrated. This history is also not taught in general undergraduate medical education outside of specialized medical history electives and humanities programs, much less in GME. Trainees therefore come to accept that these hierarchical models are evidence based and rational, rather than idiosyncratic.

The Match

One of the most important and revered rituals in the development of an American physician is the Match, which occurs at the crucial transition between medical school and residency training. This Match process, through which medical students nearly universally obtain their first employment, serves as a striking example of institutional power. Medical students hear tales of Match Day before they ever matriculate into medical school, and in many ways this ritual serves as culmination of their medical school experience and celebration of their accomplishments. However, the Match also exemplifies how the system benefits from suppressing individual agency. There is little critical examination of a process that essentially produces binding employment with no opportunity for negotiation. The illuminating history of the Match shows how the power of institutions shaped the current process we not only accept, but celebrate, today.

In the first half of the 1900s, residency slots outpaced applicants. By 1951 the National Residency Matching Program (NRMP) was created, and the first round of the Match was

completed. Students in the early years of this first rendition of the Match advocated to reform the process from a hospital-optimal based system to applicant-optimal stable matches (Williams). One early student produced the mathematical modeling to show that the original plan was created to favor hospitals. He was able to build a coalition of students who threatened to boycott the Match to ultimately change the process to default to applicant preference (Roth). This demonstrates the difficulty faced by individuals who take on powerful bodies within organized medicine, and notably this advocacy occurred prior to the increasingly size, complexity, and further consolidation of power of the NRMP, Association of American Medical Colleges (AAMC), and the Accreditation Council for Graduate Medical Education (ACGME). More recent attempts at student advocacy to reform entrenched bureaucracy in medicine have been less successful, as in attempts to reform or eliminate the profitable Step 3 exam (Wozniak).

Since the early days, the NRMP has used several mechanisms to consolidate its power. The Match is incentivized to keep programs, and their sponsoring institutions, happy so they continue to participate. The NRMP offers an efficient system to bring applicants and training programs together, by putting creating boundaries in the market and enticing parties on both sides to stay in this "voluntary" system. At the same time, they keep wages controlled by preventing the competition that might lead to more enticing benefits and terms of employment if parties went outside the Match. To maintain their role in this process, the NRMP added an anti-competitive "All In" policy in 2013, requiring programs to agree to offer their total number of available positions in the Match (Carmody).

In addition, one of the most impactful ways the NRMP secured its position as the arbiter of residency employment was through a thwarted 2002 lawsuit, *Jung v. AAMC* (Carmody). A fellow at Johns Hopkins and an antitrust lawyer brought a class action lawsuit, alleging a three-

part antitrust conspiracy between the AAMC, ACGME and NRMP. They cited violation of the Sherman Act evidenced by low and unchanging resident salaries, alleged collusion on price fixing, and the resultant matching markets created by the NRMP. In addition, the hospitals that sponsored the cited programs were *also* named as defendants, more than 25 sponsoring institutions in all. The lawsuit created such chaos that the resident plaintiffs ultimately filed for protective orders citing a "campaign of harassment, intimidation and potential retaliation" experienced by the housestaff representatives, perpetrated by the powerful coalition of defendants (Carmody). As this lawsuit was proceeding through the courts, the 80-hour work week protections were also instituted. Some speculate about the curious timing of this reform and its alignment with the suit (Carmody), which drew a great deal of attention in the medical education community and the public. Ultimately, the AAMC and its co-defendant hospitals lobbied Congress to include an 11th hour amendment in an unrelated piece of legislation, the Pension Funding Equity Act of 2004. This amendment granted the NRMP an exemption from antitrust, stating "antitrust laws do not prohibit sponsoring, conducting, or participating in a graduate medical education residency matching program" and the suit was dismissed (Carmody).

In present day, housestaff advocates point to the Match as a venerated ritual that ultimately limits agency of residents and fellows by allowing binding employment contracts, without an avenue to negotiate the terms of their employment. This issue continues to fuel housestaff advocacy efforts today and will be addressed in detail in Chapter 2. It also exemplifies the power of organized medicine in defining and controlling the resident experience. The Match is an early symbol of the power of medical institutions, underlined by the conspicuous lack of critical appraisal of the system and who it benefits. All of the bodies that made up the powerful list of co-defendants in the lawsuit profit from maintaining the current matching system, which keeps

trainee salaries modest and consistent. The protracted and painful experience of the residents who worked on behalf of many to take on this coalition to no avail serves as a cautionary tale.

Mid 1970s Protests and Burgeoning House Staff Activism

The mid 1970s provide another instructive period to consider how the broader, systemic challenges in medicine impact the experiences of trainees pursuing their graduate medical education. This period was marked by an increasing number of resident protests about the conditions of GME training such as work hours and pay, as well as about concerns for patient safety. The time was partially fueled by anger, burnout and cynicism in physicians who increasingly identified systemic problems in the delivery of healthcare that conflicted with their expectations of the practice of medicine. As GME became a larger operation, residents increasingly took issue with processes like "hot bunking," where a limited number of beds were shared by trainees in shifts. This specific practice came to a head at Barnes Hospital in New York City in 1974, when administrative interns training in the business of medicine were given their own private sleeping area while their medical resident counterparts hot bunked.

Scholars also note the impact of the of the breakdown of the role of department chairs as champions of education. As faculty groups grew and departmental priorities expanded and shifted, educational activities were disincentivized and chairs became more distanced from the trainees. The role of residency program directors was created in this period (Ludmerer) evolving to center the needs of the faculty and department, rather than the learner. GME was occupying a "declining position in the value system of academic medical centers" as these changes multiplied (Ludmerer).

In parallel, this period saw a significant increase in house staff activism. The residents at UCLA were one of the first groups to initiate protests over salary, at a time marked by both the civil rights movement and anti-Vietnam war protests. Residents at Boston City Hospital brought protests on a range of issues from patient care and quality to the physical plant, staffing, equipment. Protests by LA County hospital residents focused on overcrowding, citing "unethical medicine." Charity Hospital trainees focused on staffing, equipment, and facilities. Freedman's Hospital residents focused on the issue of safe staffing of emergency departments, calling for support for senior residents to support the interns working alone in the ER. And Presbyterian Hospital residents in New York vocalized concerns with both their own working conditions and patient safety issues.

Common themes united these protests as residents identified their own exploitation and tied it to their ability to provide safe and effective patient care. They recognized the ways resident labor was used to fill gaps in patient care, mitigate resource and staffing shortages, and ultimately create profit for their institutions. The spirit of positive disruption that marked the time and culture more generally, also influenced these junior physicians as they worked to make sense of their own experience. We can trace how these attempts toward attaining more power through collective action have been met with institutional resistance.

Resident Unionization

Resident unionization is one of the effective methods trainees have used to advocate for change through collective action when faced with exploitative work environments and conditions that endanger patient safety. Long before the period of activism in the 1970s, there were small scale moves for resident unionization, starting with the first resident union in 1934 in New York

City. But it was not until much later that the first significant strike played out. In 1975, the Committee of Interns and Residents (CIR), also based in New York, led a strike that included 21 hospitals, over 1000 house staff, and ended with the implementation of an 80-hour work week limit for those residents. CIR remains the largest housestaff union in the US today with over 24,000 members. This 1975 strike saw themes of internal conflict between residents and their faculty emerge which retain their relevance today. A nostalgic, patronizing rhetoric was taken up by many senior physicians, who took an anti-union stance, as detrimental to the profession and antithetical to other institutional priorities (Ludmerer). A hit then came to the cause of resident organizing when in 1976 the National Labor Relations Act classified trainees as students, not employees and the ruling was again upheld in 1980. This legislation halted GME organizing while broader culture changes also shaped the U.S. as the Vietnam War ended and the protest era quieted. Some housestaff associations dissolved or became inactive, while the issues that had sparked the protests in the first place largely went unresolved. Broader societal changes and current events have shaped the actions of residents and their likelihood to pursue advocacy for themselves and their patients.

Broader policy changes have also restricted residents from pursuing collective action to address their work environments and patient care issues. It was not until 1999 that the National Labor Relations Board reversed its stance and its classification of housestaff, who since have been categorized as employees to which federal labor regulations apply. However, due to lobbying and the stoking of public concerns about the potential for unions to break hospital's ability to provide patient care, stipulations were created including a cap on numbers of bargaining units in acute care hospitals. It was not until the COVID era that a strikingly familiar resurgence of labor activism amongst housestaff was seen. In May of 2022, for example,

housestaff at University of Massachusetts, University of Vermont Medical Center and Stanford University in short succession voted to unionize, citing concerns about patient safety as well as working conditions through COVID that persisted in the post-pandemic era (Henderson). Their narrative described residents and fellows as frontline workers in closest contact with contagious patients, while those with more power, including academic faculty, were buffered from direct patient care. The resident union at Stanford, for instance, largely grew out of responses to housestaff exclusion from the first round of COVID vaccines offered to hospital workers (Wamsley).

Housestaff unions continue to be one way residents have achieved changes to their working conditions. These unions have achieved recent success in negotiating on items such as salaries, policies for pregnant people, caregiver leave, and hazard pay. Unions have also been successful in negotiating housing stipends and responding to issues such as discrimination in the workplace. Work hours remain a separate issue, as they are modestly limited by Common Program Requirements set by the Accreditation Council on Graduate Medical Education (ACGME). Housestaff unions have also advocated for institutional responses to patient safety and quality issues. However, organizing is not a panacea for the numerous drivers of burnout in physicians, as evidence by a 2019 JAMA study that demonstrated similar levels of burnout in residents who are organized vs. those who are not. However, that study has been criticized as poorly designed to address the research question of interest as its conclusions were based on a survey taken after a stressful, annual, hours-long training examination and only 30% of surveyed residents were unionized.

Periods of American history marked by civil unrest, loss of faith in institutions, and greater social consciousness have characterized the backdrop of resident organizing in the 1970s

and again in the present. Public awareness of injustice at times generates momentum that fuels some reforms. However, institutions have demonstrated little meaningful change in their overall approach, maintaining power as public support wanes and current care models persist, and as the pattern of trainee exploitation continues.

The Burnout Discourse

The issue of burnout is another thread that runs through the history of graduate medical education, produced, and shaped by mass media and society, and in turn influencing residents and their interpretation of their training experience. The origin of the burnout discourse highlights the sociopolitical forces influencing residents during the first wave of unionization, and mirrors debates that are happening currently in graduate medical education. The burnout discussion highlights feelings of frustration and inefficacy amongst trainees, and physicians more generally. However, in the face of this discontent, institutions often point to personal resilience as the remedy, rather than investing in systemic changes that might center the experiences of the resident physicians (closest to the bedside compared to their senior counterparts), much less the patients who are ultimately most harmed by the problems of American medicine. Recent scholarship has shown how well-intentioned wellness curricula in residency training can create more distress in trainees, when structural issues go unaddressed (Meeks).

By understanding the origins of the burnout discourse, we might better appreciate how this history has contributed to the experience of residency trainees today. While the 1970s saw an increase in housestaff activism, it also brought attention to the newly labeled concept of burnout in medicine and medical education. The term “burnout” was first used in the 1970’s by American psychologist Herbert Freudenberger to describe “the consequences of severe stress and high

ideals in helping professions," including medicine and nursing (Maslach). Examples of burnout were subsequently portrayed with cringeworthy detail, following the misadventures of a band of medical residents in the popular satirical novel *House of God*, written under a pseudonym by psychiatrist Stephen Bergman and published in 1978. In 1979, the American Medical Association's Resident Physician Section first took on the topic of burnout in their publication *Beyond Survival* (Ludmerer). The 1970s saw a concurrent proliferation of medical memoirs centered around common themes including dehumanization, reactivity, and redundancy (Poirier). Hierarchy and power differentials were also explored with specific examples of problematic relationships between trainees and senior faculty.

The burnout subject and resident activism initially gained momentum in parallel to one another and in response to the broader social context. As mentioned, in recent years we have seen a similar surge in attention to issues of working conditions, burnout and systemic failures of patient safety and quality, which were in public view during the height of the pandemic. However, despite this attention to burnout and inequities in care, the core failings highlighted during the 1970s have largely remained unaddressed or have worsened, and interventions have proved superficial and ineffectual. By further zooming in on the experience of physicians in training, we might better understand how the environment of residency training and culture of medicine have worked together to create conditions that perpetuate burnout as well as problems with patient care.

CHAPTER THREE

CREATING AN ENVIRONMENT OF EXPLOITATION IN GRADUTE MEDICAL EDUCATION

Central Themes in Academic Medicine

Residency training shapes American physicians in deep and long-lasting ways. Medical historian Kenneth Ludmerer cites residency training as the "dominant formative influence" on physicians. Medical students transition from their peripheral role on the wards and didactically focused learning in the classroom, to the sustained, intense labor of caring for patients during residency. Importantly, graduate medical education is experienced as an "apprenticeship:"

> "Part of what draws us into this norm is that doctors learn by doing — that is, via apprenticeship — in which we repeat what's modeled for us. This is, to a degree, a necessary aspect of training in an applied technical field. It is also a fundamentally conservative model for learning that teaches us to suppress critical thinking and trust the system, even with its perverse incentives." (Reinhardt)

The experience of this apprenticeship cements junior physicians' expectations of their role as a physician, their understanding of the healthcare system and the institutions that sustain it in its current form.

Several important themes permeate the context of academic medicine and inform residents understanding of how medicine operates during this phase of their development. First, academic medicine is based in hierarchies and the elevation of experts. Biomedical research, funding and scholarship creates networks of academic authorities who direct best practices in the field through expert consensus and propagate advancement of an elite group with access to exponentially more capital and opportunity (Nguyen). A reverence for the history of medicine,

entrenched bureaucracy and the profitability of the status quo interact and sustain one another to promote a resistance to change and veneration for the models that have come before.

At the same time, capitalism and corporatization continue to shape healthcare, including the academic and community hospitals that sponsor residency training. The publicly traded HCA Healthcare, a for-profit and private equity backed operator of healthcare facilities, continues to cement its footprint in graduate medical education, most recently citing 304 total ACGME-accredited programs, employing 5,100 residents and fellows across 61 teaching hospitals, making it the largest purveyor of GME in the nation (Sumerford). Current resident advocates note concerns over conflicts of interest, patient safety and profit-focus over patient care. These scenarios may represent a particularly clear conflict with the ethical imperatives of medicine. These same forces impact the resident training experience in teaching hospitals across a variety of contexts, as academic healthcare systems grow and reuse the corporate playbooks of counterpart organizations. The corporatization of medicine has been cited as a cause of moral distress in physicians and physicians in training, who refer to administrative and financial pressures that conflict with patients' best interests (Beck). And a recent JGIM study of the twenty top-rated U.S. hospitals demonstrated that more than half of the members of their hospital boards have business or finance backgrounds, while a small minority (15%) have clinical or health services expertise (Gondi). All of these hospitals sponsor graduate medical education programs, and no doubt the goals and objectives of these institutions are greatly influenced by these top decision makers, shaping the training experience and clinical environment. The stratified hierarchies continue to test the willingness of residents to quietly go along with the status quo, as current trainees witness and reproduce the results of the free-market healthcare system that puts profits over patients: high cost, poor quality, and demoralization.

Conditions of Residency Training

The conditions of residency training also influence resident expectations of their role and the workings of the U.S. healthcare system. The experience of working within the healthcare system while occupying a lower position in the hierarchy of healthcare can further drive exhaustion, depersonalization, and a sense of inefficacy. Residency is marked by long working hours and an ever-growing number of administrative and documentation requirements. Despite ongoing discussion of trainee wellbeing, the ACGME only in July of 2022 mandated 6 weeks of paid medical leave for trainees, while other benefits remain modest and unstandardized. For example, in their recent move towards unionization, residents and fellows in Philadelphia at the University of Pennsylvania cited a freeze on wages along with the retraction of parking benefits, while residents were working frontline during the pandemic. There have not been any large-scale reforms of work hour requirements since the early 2000s. For example, many residency programs routinely use call schedules built around 24+4 hour schedules of continuous clinical work,

Residents also receive mixed messages about their role and their own personal wellbeing. They are simultaneously considered learners by the ACGME and their sponsoring institution, as well as hospital employees. However, they begin their relationship with the hospital bound by a contract they have seen during recruitment but not had any opportunity to negotiate. Substantive changes in their work experience are mediated by the graduate medical education committees within sponsoring institutions. The GMEC is subject to the same slow and bureaucratic processes other hospital policies are bound by, and the committee often lacks resident voices. A small number of elected resident representatives are required by the ACGME. Alternative forums for negotiation, such as House Staff Councils, are similarly limited, if they exist at all.

In addition, residency training programs increasingly include didactic curricula on wellness, yet the logistics of residency are incongruous with policies that support time for self-care or attending to one's health. Residents and faculty routinely work while sick (Szymczak). As mentioned, the ACGME recently mandated 6 weeks of FMLA for all trainees without extension of training, an important step. However, residency program directors oversee and approve such leave and then are required to disclose it, along with other sensitive information such as the presence of mental health conditions, on credentialing and licensing paperwork when the same residents apply for jobs upon graduation and beyond (Dyrbye).

Opportunities for residency program feedback exist via the ACGME, institution and departmental level surveys, however the perception of safety is a prerequisite for candid feedback, and residents continue to cite potential retribution as a factor that limits their use of voice, even via confidential processes. Reporting mechanisms for unprofessional or abusive conduct by faculty or staff remain inconsistent and difficult to enforce. While all programs are required to demonstrate proof of mechanisms for addressing unprofessional conduct, the pathways for mitigating behavior for people in positions of power can be unclear, lacking transparency and evidence of follow through. Faculty physicians are protected through their medical staff privileges and anonymous resident reports by their very nature do not allow for loop closure on reports of poor behavior.

The past few years have seen a rising tide of resident unionization movements in response to these constraints. Institutions are aware of the transient nature of residency training (3-5 years for most) and the large number of other requirements residents must simultaneously attend to, including 80-hour work weeks and regular 24+ hour calls. This context does not make for

likelihood of success in unionization efforts for a group of young people who are often siloed, tired, and overworked. Yet, several have persisted and succeeded in these efforts.

The Culture of Medicine

The culture of medicine, defined by the values, beliefs, and norms of the field, sustains an environment of exploitation that impacts physicians during their training and beyond. These cultural forces remain elusive and powerful, and they often go unnamed and uninterrogated. As written in the AMA Journal of Ethics piece "Describing a Culture From Within:"

> Perhaps one reason defining and discussing culture can be so challenging is that so much of what forms and sustains it is implicit. The culture of medicine is not only defined by what doctors do, say, feel, and think, but also by what they do *not* do, say, feel, or think. (Michalska-Smith).

Two important pieces of cultural dogma are reinforced before, during and after the residency training experience, and sustain an environment ripe for abuse of power. The arrival fallacy, which is the idea that once a person achieves a particular goal they will reach lasting happiness, permeates medical training (Ben-Shahar). It starts with the ritual of the Match and the celebration of residency placement as the culmination of medical school, but it is reinforced as residents are continually assessed in preparation for graduation and job placement. The progression through residency is marked by the achievement of milestones and this future focus and continual assessment detracts from individual real-time needs and feeds notions of self-sacrifice in service to long term goals. The second related piece of cultural dogma in American medicine is heroic individualism, an "ongoing game of one-upsmanship, against both yourself and others, paired with the limiting belief that measurable achievement is the only arbiter of success" (Stulberg). This belief is modeled and reinforced in medical training by an emphasis on tests and scores, competitive learning environments, and striving for recognition of excellence

through publications, scholarship and leadership roles that spills over into academic careers after residency training. As senior trainees and then faculty rise through the ranks, they can propagate suffering in mentees by upholding this central belief in their mentorship practices and guidance of future generations of physicians. The ideas of the arrival fallacy and heroic individualism develop as adaptations in toxic environments, but they also fuel their own dominance as physicians adopt this mentality and then pass it on to juniors in training. Residency includes assessment of skills and preparation for the job market. Therefore, acculturation, overwork, and high performance are reinforced. Residents who go above and beyond what is required in terms of their labor to the institution are rewarded. As physicians in training advance and acquire more access and opportunity within this system, they also move further away from experiencing the direct harm and go on to not only dangerously normalize it, but also propagate and benefit from it. The training period is transient, and most physicians acquire more capital as they move through it, which reinforces the very culture of individualism and self-determination on which the system relies.

Scholars also describe the assimilation trauma of medical training, tracing the pathway from undergraduate education to medical school, to residency and beyond. They describe the socialization process and reinforcement strategies that influence trainees including narratives that glorify status and heroism, accumulation of debt, primacy of exams and assessments, weaponization of professionalism, and reliance on hierarchy (Legha).

Other strong cultural forces prevent the activism required to make important changes to the environment of residency training. Paternalism continues to shape the resident experience, with multiple bodies in organized medicine setting and maintaining the goals, objectives, and incentives for training. Opportunities for feedback exist via the ACGME, institution and

departmental level surveys, however the perception of safety is a prerequisite for candid feedback, and residents continue to cite potential retribution as a factor that limits their use of voice, even via confidential processes. Reporting mechanisms for unprofessional or abusive conduct by faculty or staff remain inconsistent and difficult to enforce. While all programs are required to demonstrate proof of mechanisms for addressing unprofessional conduct, the pathways for mitigating behavior for people in positions of power can be unclear, lacking transparency and evidence of follow through. Faculty physicians are protected through their medical staff privileges and anonymous resident reports by their very nature do not allow for loop closure on reports of poor behavior.

The Primacy of the Behavioral Framework in Residency Learning

The behavioral framework is the predominant construct used in the teaching of clinical medicine during both undergraduate and graduate medical education. The diagnosis and management of disease is presented in terms of individual behaviors, actions, and risk factors. Some population level patterns are discussed but the most of medical learning takes place on the individual patient level. Broader community-level patterns of health and illness are infrequently taught. The behavioral framework for understanding health and illness reigns in residency training and limits trainees' ability to think critically and imagine interventions beyond the individual level. This framework limits the type of problem-solving physicians can imagine, whether it is to address patient care issues or to address their own education or the conditions of current medical practice. In addition, the tools for addressing health are focused on acute episodic care without attention to the social and structural drivers that make up 80% of any individual's experience of health and wellbeing (Braveman). The biomedical approach positions

patients as victims bound up in a "web of risk factors," absent any meaningful discussion of the "spiders," or structural drivers of disadvantage (Tsai). These risk factors are reinforced via clinical tools, from equipment to terminology to algorithms, that reify social identifiers, rather than appreciating them as markers of marginalization and interrogating their root causes. The same behavioral framework that pervades learning of the clinical practice also comes to define resident expectations of what's possible for themselves in their careers and what's possible in medicine. In the end, the continued reliance on the behavioral framework as a foundational didactic tool in residency training feeds a crisis of imagination, sustaining limiting beliefs of what the practice of medicine might accomplish and how an alternative approach might promote healing for both practitioners *and* patients.

Medical trainees largely practice medicine in the fast paced, high acuity environment of the academic medical center void of meaningful discussion of the social or economic context within which patients live their lives and pursue health. This same context is missing from their discussion of their own experience as trainees. Recent medical education literature has highlighted the gap in teaching about structural determinants of health (Metzl). While undergraduate medical education has brought increased attention to social determinants, this discussion is often void of discussion of their root causes. The result is a collective learned helplessness that comes from noting these gaps and not intervening to address them. The lack of critical pedagogy means the very systems and processes that sustain this helplessness persist. Residents don't learn the language and tools to identify the root causes and elucidate how they function, much less intervene to change them.

The lack of a critical and structural lens through which to contextualize medical decision-making leads to overreliance on interventions that promote personal responsibility and self-

efficacy. This deficit-based model of care hold leaves individual patients bearing the blame for poor health outcomes, rather than holding systems accountable. The language modeled and reproduced in clinical documentation further reinforces these ideas (Sun, Himmelstein). Progression through graduate medical education is assessed via milestones within the model of competency-based assessment. The milestones track and assess clinical skills, including communication skills on the interpersonal level, but do not account for understanding of structural drivers of poor health on the individual or population level. Furthermore, critique of medical culture and other institutions that reproduce inequalities is not incentivized in graduate medical education (Geronimus).

Medical educators further perpetuate notions of the primacy of individual responsibility in narratives of resident success. The resilience framework is applied and reapplied to medical trainees in the context of their own wellbeing (Nituica). Educators in surgery, for example, have cited "resilience" as predictive factor for success in surgical training (Lebares). This discourse fuels quiet resignation to one's lack of agency within the training environment that is replicated later in the independent practice of medicine. The overfocus on resiliency discourages notions of upstream change. As a word of caution, balance is required in examining structural forces to avoid distancing clinicians from their own privilege, agency, and self-efficacy. There is some risk that increasing attention to systems drivers may leave individual physicians overwhelmed and pointing upward and outward rather than reflecting on their own reproduction of oppression, as many accrue substantive benefits as they rise through the hierarchy within institutions.

CHAPTER FOUR

ENVISIONING A NEW APPROACH TO GRADUATE MEDICAL EDUCATION

The history of GME, working conditions of residency training and the culture of medicine interact to produce environments that exploit trainees. These forces also influence junior physicians' understanding of the system they are a part of and their future decisions about how to act within that system. Trainees experience oppression but also learn to produce it as they advance within the system, and then in turn become the physician educators shaping the experiences of trainees who come next. Their experiences in residency training mold their ideas about their own power and agency. Through residency training, they have internalized the primacy of institutions, and the processes and cultures that sustain them. By rethinking this crucial phase in physician development, we might influence the types of physicians we produce, the ways they act within and shape the healthcare system, and ultimately how they care for themselves, their communities, and their patients. Trauma informed education and critical pedagogy are two key concepts that can be used to rethink the current approach to graduate medical education. Each offers a new values, norms and practices that offer different environments for learning that encourage agency, empowerment, and justice.

Tools for Remaking GME: Trauma Informed Education Principles

Trauma informed care is an approach that acknowledges the pervasive impact of trauma on individuals and communities and promotes healing environments by rooting organizational cultures and practices in this understanding. Trauma informed education principles have the potential to improve the residency training experience by grounding all work in the values of safety, trustworthiness, choice, collaboration, and empowerment (Brown). In addition, trauma

informed approaches appropriately contextualize the practice of medicine and the experience of patients and providers with an anti-oppressive lens that is sensitive to the history of relationships between institutions and communities (Shevrin Venet). This lens would be used for envisioning multiple potential levels of intervention in graduate medical education, including individual, interpersonal, institutional, community, policy, and research. This multi-level approach could be applied to patient care as well as to the experience of trainees themselves, and some interventions would have overlapping objectives. For instance, individual level interventions might look like anti-bias education for trainees and their faculty members and could potentially impact not only clinical decision-making in patient care, but faculty evaluations of residents in training. Interpersonal interventions might include teaching and modeling best practices in physical exam and history taking that is sensitive to experiences of victims of abuse. These same principles could apply in teaching faculty how to lead clinical debriefs and provide feedback in ways that are sensitive to the experience of learners with histories of trauma. At the institutional level, trauma informed policies would seek to support a sanctuary hospital model where patients are free from the threat of police and other law enforcement entities such as ICE, to promote a healing environment for patient care. Similarly, policies to support a safe educational environment might include robust reporting structures for harassment and abuse, trainee and community member perspectives on key hospital committees and governing bodies, and benefits and working environments with resources and staffing to promote safe patient care. Community focused interventions would require health system investment in partnerships with community-based organizations and availability of robust social services to support learner, patient, and employee needs.

Trauma informed education is asset based, a very different approach to the prime biomedical model which is risk and deficiency centered. A trauma informed approach to education and patient care aims to identify structural issues and intervene on the systems level to address problems. Much of graduate medical education remains siloed and focused on individual level interventions on a limited scale. As a human centered undertaking, trauma informed care acknowledges how the system is experienced by the end-user (patient or trainee) and reveals ways to improve that experience in a proactive manner that best supports learning, development, and health. Trauma informed education is social justice focused, building not just an awareness of the impact of trauma, but also increasing capacity to address the structures, systems and inequalities that create and sustain trauma. Trauma informed graduate medical education would contextualize the resident experience by examining the history, training environment and medical culture described above. All parties involved in the educational endeavor would need to examine the hierarchies and power dynamics at play, and rethink how these might be mitigated or abandoned all together. In a trauma informed model, each of these current mechanisms could be interrogated and rebuilt to instead center safety, trustworthiness, choice, collaboration, and empowerment.

Tools for Remaking GME: Critical Pedagogy

Critical pedagogy offers an important set of philosophies and practices that could inform and rebuild graduate medical education. Critical pedagogy necessitates that educators contextualize their teaching and encourages learners to interrogate the systems and power structures that create inequality. The forces shaping the experience of physicians in training are rarely acknowledged, discussed, or reflected upon before, during or after this phase of their education. The history, environment, and culture of medical training all work together to maintain current systems that

do not serve learner or patients' needs, and their training is void of discussion of these mechanisms. Highly educated professionals have firsthand experience of what exploitation looks and feels like, yet they are not equipped with the language to understand or describe these conditions, much less the tools to dismantle them. The current conflicts and crises affecting physicians in training today mirror those of the 1970's precisely because the theory and practice of physician education has remained largely unchanged.

Critical pedagogy would inform an approach to medical education that supports learning and seeks health justice. Gomez describes starting with teaching that interrogates deficit-based practices. For instance, clinical decision-making algorithms and documentation that overemphasize "risk" undermine patient and community strengths and distract from structural drivers of suffering such as economic disinvestment, residential segregation, and profit-driven hospital practices such as suing poor patients. Similar but smaller-scale deficit-based approaches that impact residents and shape clinician beliefs include infantilizing approaches to trainee wellbeing that overemphasize personal resilience and individual help seeking and promote individualism and isolation. An approach to trainee wellbeing grounded in critical consciousness would instead look to ways to provide safety and security for all via more equitable working conditions and benefits. A graduate medical education system that seeks to advance health justice through praxis would emphasize relational practices, rather than the task-based focus of current medical care. Other features of this type of education would include power-sharing with patients and recognition of the value of their own embodied knowledge about their health and their lives. Finally, Gomez describes education that develops critical consciousness and humility, as opposed to current paradigms that elevate perfectionism, objectivity, fear, and paternalism, as

tools that uphold the status quo. Teaching that reflects humility would both recognize trainees as mature, adult learners and patients as the experts in their own bodies and health.

CHAPTER FIVE

CONCLUSION

The history of graduate medical education, the conditions of residency training and the culture of medicine contribute to an exploitative environment for trainees. As physicians are professionalized and socialized in this environment, they also come to normalize these conditions and internalize the dominance of institutions. This implicit teaching, or training, shapes young physicians in their apprenticeship as they are developing their understanding of healthcare and their expectations of medicine. This training constrains the agency of these physicians as they proceed in their learning and maturing. It molds their thinking about how they navigate hierarchy and interact with the institutions of which they are a part. The dominant teaching philosophies ultimately limit physicians' abilities to imagine something different for themselves and for their patients. A move toward social justice oriented graduate medical education would require a proactive approach to remaking the current system. It would challenge educators to take on the mantle of unconditional positive regard. A remaking of the current system would necessitate new policies and practices and a move beyond individually based interventions. It would also require an acknowledgement of how current medical training shapes and is shaped by society and how a reimagining of this training offers a move away from the business-oriented model of healthcare and a way back to the original promise of medicine: healing.

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