Challenges and Opportunities for Graduate Medical Education: Steps to Keep Physician Training in North Carolina Exceptional

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Changes in health care present many challenges and opportunities to North Carolina's exceptional graduate medical education programs. Steps to keep these programs exceptional include boosting leadership training, championing well-being, expanding rural training, and more described here.

Introduction

The hospitals and health systems in North Carolina provide a wide range of graduate medical education (GME) programs for physicians who seek training in various specialties and subspecialties. For many reasons, North Carolina is an ideal state for GME, and physicians from all over the country and world come to the state for their medical training.

Yet, significant changes in how health care is organized, reimbursed, and delivered are occurring, and more changes are looming, with important implications for GME. While GME in North Carolina is exceptional, how will it fare given the challenges and opportunities ahead, and what steps should be taken to ensure that GME in our state remains exceptional?

GME in North Carolina

North Carolina has 17 institutions that sponsor accreditation of GME residencies and fellowships by the Accreditation Council for Graduate Medical Education (ACGME) [1]. The largest is Duke University Hospital, with 102 accredited training programs. The other medical centers with moderate to large GME footprints (19 or more accredited programs) include University of North Carolina Hospitals (86 programs), Wake Forest University Baptist Medical Center (66), ECU Health Medical Center (31), Carolinas Medical Center (26), Campbell University (23), and Mountain Area Health Education Center (19). Two military-based hospitals have small GME footprints: Womack Army Medical Center (6) and Naval Medical Center (2).

Sponsoring institutions with five or fewer accredited programs include Atrium Health Cabarrus, Cone Health, Novant Health, Novant Health New Hanover Regional Medical Center, OrthoCarolina, Southern Regional Area Health Education Center, UNC Health Blue Ridge, and WakeMed Health and Hospitals. Medical centers and clinics of the Veterans Administration (VA) in North Carolina have long trained physicians, and this continues at VA sites all over the state.

There are 373 accredited residencies and fellowships in North Carolina [1]; the largest is Duke's Internal Medicine residency, with 149 filled positions. The number of accredited programs is an incomplete story of GME, as there are many programs for which accreditation from the ACGME is unavailable, or that are accredited through specialty societies. For example, Duke has an additional 73 fellowships providing subspecialty training [2].

As in most of the country, until recently physician training in North Carolina has been occurring almost exclusively in large safety-net academic medical centers and their associated clinics. While that's still the case for most physician trainees, we now have physicians receiving the bulk of their post-medical school training outside the major medical centers, including programs focused in Duplin, Henderson, Hertford, and Watauga counties [3]. The Jerry M. Wallace School of Osteopathic Medicine at Campbell University includes as part of its mission a commitment to preparing physicians to care for rural and underserved patients, which is illustrated by its residencies in Cumberland, Harnett, and Roberson counties [4]. Russell and colleagues demonstrated recently that physicians who train in rural counties are more apt to subsequently practice in rural counties [5]; rural training efforts in North Carolina are likely to achieve similar results.

Challenges and Opportunities

Many organizations and authors have begun examining how changes in medicine and health care may impact GME. Duval and colleagues [6] and Simpson and colleagues [7] provide comprehensive insight. The look here is limited to

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the changes that may pose the most consequence from a North Carolina perspective.

Burnout

A very real phenomenon, burnout in health care workers—including physicians and physicians-in-training—is so common that the Surgeon General has called it a national crisis [8]. Often unrecognized, physician burnout may affect younger physicians more and can be associated with increased rates of depression, drug abuse, divorce, and suicide [9]. The ACGME is so serious about burnout and well-being that it revised its accreditation requirements to emphasize well-being and has integrated physician well-being into its work in all dimensions [10].

Commoditization

Commoditization is one of the main trends anticipated by the ACGME in its scenario planning for the future of GME [6]. Traditionally, physicians have been independent and autonomous professionals driven by a moral mission to serve. But just as health care is undergoing commoditization [11], so too are physicians becoming commodities. The evidence for physician commoditization is unsubtle and comes in the form of increasing direct physician employment and the ubiquitous use of the term "provider" in lieu of physician.

The trend of physicians being employees rather than practice owners is not new but may be reaching a tipping point. The American Medical Association (AMA) noted last year that for the first time, the majority of physicians surveyed (50.2%) were employed, "up from 47.4% in 2018 and 41.8% in 2012" [12]. The employers of physicians are more often than not the growing health systems that see direct employment of physicians as a way to achieve multiple goals, including controlling costs, providing coverage for emergency call, improving quality, and increasing physician loyalty. [13]. The results of this employment trend are mixed [14], but concerns about an overemphasis by employers on productivity, along with concerns from physicians about losing autonomy, are real.

Erlich describes four distinct harms in the "rebranding of physicians with an economic label" like "provider": 1) implication that physicians and other health care professionals are interchangeable; 2) depersonalization, which contributes to burnout; 3) dishonoring physicians' intensive training and weighty responsibility; and 4) the implication that primary care physicians are more utilitarian, thereby minimizing their expertise [15]. Protesting being called "providers" puts forth the risk that physicians will be perceived as elitist. The challenge is to preserve what it means to be a unique and singular "profession," while remaining humble.

Corporatization and Consolidation

More than 40 years ago, Dr. Arnold Relman famously co-opted a phrase from President Eisenhower and called the corporatization of health care the "medical-industrial complex" [16]. Dr. Relman was referring mostly to for-profit organizations, but since then the corporatization of medicine has expanded to nonprofit hospitals, especially through the creation of large "health systems," which are typically an amalgamation of many hospitals, practices, clinics, and other services under one uniformly branded corporate entity.

North Carolina, not immune to this phenomenon, now has a large for-profit health system spread throughout its mountain region, along with other nonprofit health systems. The largest nonprofit is the "strategic brand combination" of Charlotte-based Atrium Health and Winston Salem-based Wake Forest Baptist Health [17]. The resulting Atrium/Wake Forest mega-system prototype includes more than 40 hospitals spread across four states. This consolidation to create large health systems is not unique to Atrium and Wake Forest—other growing health systems in North Carolina include ECU Health, Novant Health, and UNC Health.

As separate health care institutions become consolidated into health systems, it will be easier for once distinct GME entities to connect and learn together. But "better connected" doesn't mean better coordinated. While the ACGME designated institutional officials (DIOs) responsible for GME oversight turn to each other for advice and counsel, any GME planning on a statewide basis is very organic and usually in response to a specific need.

Financing of GME

The financing of physician training is complex but typically occurs through streams of funding from federal sources (Medicare being by far the largest) and from the operational revenues of hospitals and health systems. Recently, there have been calls to reform the financing of GME, which might include redistributing federal funds to rural and primary care entities, using them to reduce the debt and increase the salaries of clinicians serving the underserved, or ending the federal GME financing program and using those funds for other public priorities [18]. While GME federal financing reform is unlikely in the short term, the fact that GME is such a large financial enterprise ($14.5 billion in federal funds [18]), means that it cannot be ignored.

Role of NC AHEC

The North Carolina Area Health Education Centers (NC AHEC) Program and its leadership have always had a role in GME, including sponsorship of GME programs through NC AHEC centers. But recently, the leadership of NC AHEC has taken on a more granular role in coordinating communication and providing gathering and education venues for GME leaders and their teams. This statewide coordination and communication is nascent but has the potential to help GME leaders respond on a statewide basis to the challenges and opportunities they face.

Next Steps

Boost Leadership Training

The corporatization of health care and the commoditization of physicians risk diminishing the role of the physician as a key leader of health care teams, both at the micro and macro system levels. To counteract this risk, institutions and training programs should offer leadership training for their physician trainees that emphasizes the critical role of the physician as a leader and role model. Leadership training by GME should also emphasize and teach effective methods to advance diversity, equity, and inclusion [19]. The leadership training venues could also be the place to teach physician trainees about the financial realities of health care and their role in keeping the bottom line green while emphasizing that medicine must retain its service and moral missions.

Champion Clinician Well-Being

The GME community in North Carolina should take a lead in implementing the recommendations in the National Plan for Heath Workforce Well-Being [20] for physician trainees while also advocating for well-being for other clinicians. Importantly, we must figure out how to reduce the administrative burdens faced by trainees. Spending two hours of chart work for every hour of patient contact [21] is both inefficient and anathema to the meaningful practice of medicine. In addition, as prescribed by the Surgeon General, training institutions have an obligation to plant the "seeds of well-being" early, such that a culture of well-being becomes manifest [8]. We must also acknowledge our mental health vulnerabilities and provide the resources needed when our resident physicians, fellows, faculty, and staff need them.

Embrace Digital and Virtual Realities

Unlike older generations, physicians entering training today are digital natives—they've never known a world without the internet and all of them have experienced the time of COVID-19, when virtual care became commonplace [22]. Artificial intelligence, e-prescribing, telemedicine, and wearable devices with instant feedback are now constant parts of medicine and health care. But GME curricula and training are still catching up with the advances catalyzed by COVID-19. The problem with a world that is digital and virtual is that it can be isolating and dissocializing, which may contribute to burnout and cause our colleagues and patients to think we care less when they need caring more than ever [23]. As we embrace digital and virtual realities, we must do it with caution and make sure we are still connecting with each other in ways that are meaningful and uplifting.

Enhance the Role of NC AHEC

While the ACGME DIOs at each sponsoring institution sometimes call on each other for advice, direction, and reassurance, fortunately, NC AHEC—through the leadership of Hugh Tilson and Dr. Adam Zolotor—is facilitating more frequent DIO interaction and improving communications among GME leaders and staff across the state. In addition, NC AHEC has begun hosting periodic statewide GME-centric conferences. There is a need for NC AHEC to be more formally empowered to enhance its role of analyzing, planning, coordinating, and funding GME efforts in North Carolina. Planning could include deeper work with the UNC Cecil G. Sheps Center for Health Services Research to determine physician need by locale and the response of GME to that need. In addition to identifying and fulfilling unmet physician training needs, this could reduce unnecessary duplicative programs.

Expand Rural Training Opportunities

Unsurprisingly, North Carolina is ahead of the pack in establishing training programs with a rural focus, in large part because of the support of the North Carolina General Assembly. Now that we know there is a correlation between rural training and rural practice [5], efforts to expand rural training—even to specialties beyond Family Medicine, such as Internal Medicine, Surgery, and OB/GYN—should be considered.

Foster A "Profession" Mindset

More than 50 years ago, Freidson portrayed a "profession" as both an occupation and an "avowal or promise" [24]. He pointed out that autonomy is an important function of a profession and a result of self-regulation. Working together, self-regulation and autonomy, along with the physician's knowledge and expertise, build trust for the profession among the public.

Commodification, corporatization, and consolidation have diminished the role of the physician and its profession, alongside a loss of autonomy and the need for self-regulation. For physicians to regain their autonomy and to avoid becoming only commodities, they must return to the sense of duty that a profession entails. Training institutions and their GME programs should play a major role in restoring a "profession" mindset and teaching about its importance.

Keep GME Oversight Local

As consolidation and corporatization continue their inevitable march, the temptation will be to manage GME from afar using a spreadsheet. However, the ACGME model of a sponsoring institution, DIO, program director, and program coordinator should continue to be the template for GME, with oversight and management focused as close to the training as possible. The DIOs, however, should have a definite connection to the C-suite, as prescribed by the ACGME, so that executives and administrators can be informed about how their resource allocation affects GME positively and negatively. NCMJ

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