

# Proceedings from the American Medical Women's Association Graduate Medical Education Symposia: The First Three Years, 2018-2020

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## INTRODUCTION

The American Medical Women's Association (AMWA), founded in 1915, is the oldest national multispecialty association for women in medicine. The mission of AMWA is to advance women in medicine, advocate for equity, and ensure excellence in health care. Recognizing the crucial role of supporting faculty members in preparing the next generation of physicians, AMWA launched an initiative in 2017 focused on graduate medical education (GME). A key component of this initiative is a 2-hour GME symposium during the AMWA Annual Meeting to provide a collaborative forum for GME leaders, clinician-educators, and trainees. This report represents a collection of symposia presentations from the first 3 years: 2018 (Philadelphia, PA), 2019 (New York, NY), and 2020 (Virtual Meeting). ❖

## WOMEN IN GRADUATE MEDICAL EDUCATION

Establishing a Graduate Medical Education Task Force for the American Medical Women's Association

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In 2017, the American Medical Women's Association (AMWA) established the Graduate Medical Education (GME) Task Force in response to the recognized need among its membership to support women faculty and the training of the next generation of physicians. Although each academic institution and specialty society has its own GME committee or Association of Program Directors, limited opportunities exist outside the Accreditation Council for Graduate Medical Education (ACGME) and the Association of American Medical Colleges<sup>1</sup> for Program Directors, faculty, and trainees to interact across medical disciplines,

share best practices, and focus on issues relevant to women in medicine. There are also few organizations that facilitate this collaboration among the limited numbers of women who hold leadership positions in academic medicine and the larger numbers of women in GME across all ranks.

In the academic and scientific community, including disciplines outside medicine, changes were happening as similar needs were recognized. In 2017, the ACGME revised the common program requirements to emphasize the importance of psychological, emotional, and physical well-being in residency and fellowship training, regardless of medical specialty.<sup>2</sup> In 2018, the National Academies of Sciences, Engineering, and Medicine published a report examining sexual harassment in our medical institutions (and downstream consequences) and concluded that addressing these challenges would require systemwide changes in both the climate and culture of our institutional environments.<sup>3</sup> Since that time, there has been a surge in publications focused on the need for gender equity, diversity and inclusion, and the imperative for physician and trainee well-being. Against the backdrop of a shifting sociopolitical landscape across the country, 2018 turned out to be a year for change.

A key component of the AMWA GME initiative is a dedicated 2-hour GME Symposium<sup>4</sup> during the AMWA Annual Meeting as a forum to exchange ideas, collaborate, advance initiatives, take action, and ignite change. This is one of a few national meeting programs that bring together institutional officials, Deans, Program Directors, emeritus and core faculty, trainees, and professional medical society leadership representing a wide range of medical disciplines to share innovations, develop areas for support, and address key issues in GME and the training environment for students and physicians. With approximately 40 to 50 annual symposium attendees thus far, the AMWA GME Task Force intends to continue to engage more GME faculty and trainees across the country, with diverse representation of specialties, geographic locations, and institutional settings.

A major focus of our 2018 GME Symposium was residency mentorship, well-being, and humanism in medicine. In 2019, we addressed gender equity and workforce preparedness. In March 2020 amid the early COVID-19 pandemic, we held a Virtual GME Symposium (as part of the Virtual AMWA Annual Meeting) that was focused on

burnout and resilience, GME expansion, and faculty development. A priority each year is the engagement of local GME communities in the city where the national AMWA Annual Meeting is hosted. The Symposium also provides the opportunity to share innovations in medical education through presentations and posters; these have included games in medical education, visual arts, wellness initiatives, sex and gender-based medicine, and health equity and disparities training.

In the accompanying compilation of short reports, we present the AMWA GME Symposia proceedings from the 3 inaugural years.<sup>4</sup> Most importantly, we invite the broader GME community to partner with us in our journey forward.

*Action item: Develop GME partnerships within a national organization serving women in medicine to enrich the training experience, support faculty, and promote positive institutional change.*

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## Leveling the Playing Field for Women in Medicine and Training

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**Conflict of interest:** None.

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*Wired* had this headline on March 28, 2019: “The failure of NASA’s spacewalk snafu? How predictable it was.”<sup>1</sup> From studying the way men and women’s bodies differ on space and on earth, it was not surprising that when the National Aeronautics and Space Administration (NASA) canceled its highly promoted first-ever all-women astronaut spacewalk, it was because the space suits available were the wrong size! The failure to translate science into real-world solutions is partly due to the lack of policies, data, and research that take into account sex and gender. Gender inequality exists at home, the workplace, and the doctor’s office, and it affects how resources are allocated and decisions

made. But much of the data used do not take gender into account because it treats men as the default and women as atypical. The book *Invisible Women* by Caroline Criado Perez<sup>2</sup> highlights many areas in which gender inequity has greatly affected our world.

Men and women present with different disease symptoms, clinical courses, and responses to therapeutics. As we understand and teach the impact of gender/sex on health,<sup>3</sup> we can enhance disease prevention and advance health promotion strategies. Take, for example, the use of zolpidem (Ambien). When it came to market, the clinical trials had mostly been done with men, and the maximum dose as a sleep aid was 10 mg. Once it was in use, the population was more than 50% women, many of whom had substantial side effects, resulting in the change to a maximum dose of 5 mg in women. Had the clinical trials included women, this might have been identified before the launch of the drug. Examples of this gap exists in many areas of health. Perhaps the best example is in heart disease, in which the “typical” complaints of chest pain radiating to the jaw and arm are less common in women who “atypically” present with nausea, fatigue, and abdominal complaints. Worse is the testing for cardiac ischemia in which the cutoff for a “positive” (abnormal) troponin level is not categorized differently for men and women, leading to a possible increase in false-negative results in women.

As in business, creating a diverse and well-informed biomedical workforce leads to better science and health. There are strong data indicating that diversity results in increased productivity in business and more substantial research in our institutions. When a group of leaders represents only a few voices, there is a paucity of ideas and alternative solutions to problems.

Calling out the lack of diversity is one start that many in the American Medical Women’s Association and other organizations are promoting. Recognizing when there is a lack of diversity helps delineate the need. By pointing out when “manels” (all-male speaking panels) exist at meetings,<sup>4</sup> when magazine covers only depict male physicians and scientists, when portraits at your institution are all of 1 gender or race, or when salaries are tied to scoring systems that are inherently biased, and highlighting these perhaps unintentional but obvious deficiencies will help delineate the problem and bring it out into the open. Those of us in graduate medical education share in this important responsibility. We must not feel ill at ease when we tell the leaders of our programs that putting up pictures of scantily clad women physicians as a “joke” is not appropriate.

We must also provide options and solutions to increase diversity.

*Action item: Address issues pertaining to gender equity, diversity, and inclusion at your institution and integrate*

*sex- and gender-based medicine into undergraduate and graduate medical education curricula.*

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## INSTITUTION AND ENVIRONMENT

### Women in Medicine: Creating a JEDI Health Care Environment

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**Keywords:** diversity and inclusion, gender equity, health care environment, physicians, women in medicine

**Conflict of interest:** None.

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Inextricably etched in our minds, the word *JEDI* conjures up the iconic images from the Star Wars movies. In the context of our health care environments, JEDI means that we will need to collectively work toward more Just, Equitable, Diverse, and Inclusive environments. Medical professional societies are particularly poised to lead the journey because of their broad representation of diverse groups that include medical students, trainees, and practicing physicians. Our increasingly diverse patient population and health care workforce present quality and safety imperatives for medical societies to lead the way to a more JEDI health care environment.

The American College of Physicians (ACP) is the world's largest medical specialty society, with 159,000 medical students, physicians-in-training, and practicing physician members. In September 2016, the ACP's Council of Resident/Fellow Members (CRFM) brought a resolution to expand the ACP's policies around achieving equity in compensation and advancement for women physicians. The resulting evidence-based, comprehensive policy, published in the *Annals of Internal Medicine* in 2018,<sup>1</sup> posited major equity position domains: physician compensation, family and medical leave, leadership development and advancement, unconscious bias training, research on gender inequity, and opposition to harassment, discrimination, and retaliation.

The ACP created a road map to examine, measure, and track processes and procedures to achieve the stated principles

in our newly expanded gender equity policy. In spring 2018, Dr Susan Thompson Hingle, 2017-2018 Chair of ACP's Board of Regents, convened a Diversity and Inclusion (D&I) Task Force to begin this important work. Subsequently, the D&I Task Force became the Diversity, Equity and Inclusion subcommittee and reported to ACP's Governance Committee to ensure maximal impact. This subcommittee is systematically reviewing, modifying, tracking, and implementing policies and procedures to achieve the end points we put forward in our policy paper. One of the subcommittee's first actions was to update ACP's Diversity Policy and the Vision, Goals, and Values to ensure these important organizational components emphasize JEDI in a way that reflects our renewed commitment to achieving it. The ACP Awards Committee reviewed awards and mastership recipient demographics and language, conducted committee implicit bias training, and reviewed all awards to ensure they reflect evolving demographics and values of the ACP. The ACP has launched dynamic and comprehensive online member resources (available from: [www.acponline.org/WIM](http://www.acponline.org/WIM)).<sup>2</sup> As part of our longitudinal commitment to disseminating science on gender equity, the ACP conducted and published the results of a survey that found \$25,000 lower annual pay for women relative to men after adjusting for a number of factors.<sup>3</sup>

With humility and diligence, medical professional societies need to embark on foundational work to ensure that their core values, governance activities, policies, procedures, and systems lead to a more JEDI environment. Our patients and those on the front lines in health care are relying on us to lead the way.<sup>4</sup> We all benefit from having more JEDI practitioners for whom we can wish, "May the force be with you."

*Action item: Medical professional societies should work with their companion GME organization(s) to catalyze, harmonize, and synergize initiatives to advance the JEDI imperative for their graduate medical trainees.*

## Acknowledgments

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## Ensuring Safe and Equitable Environments for Women Training to Become Physicians

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**Keywords:** discrimination, diversity and inclusion, gender equity, graduate medical education, harassment, women in medicine

**Conflict of interest:** None.

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Despite tremendous progress by women over the past few decades, substantial gender-based disparities persist within all facets of academic medicine. An inexhaustive list of such includes inequities in academic promotion, underrepresentation of women as authors and editors of medical journals, unjustified gender differences in compensation, and sexual harassment and discrimination.<sup>1</sup>

Here are some of the facts. Promotion in academic medical schools remains highly skewed; while women make up 41% of full-time medical faculty members, they constitute only 18% of medical school Deans, 18% of department Chairs, and 25% of full professors in academic medicine.<sup>2</sup> Publication in medical journals—an important measure of academic productivity and highly emphasized in the academic promotion process, as well as a key form of influence—is slowly becoming more equitable. Nevertheless, research shows in study after study that women constitute only a minority of authors, writers of invited editorials, and editorial board members.

Gender differences in compensation have also been documented. For example, a survey of midcareer male and female physician researchers revealed a \$12,000 difference in mean salary between men and women, even after adjustment for differences in specialty, institutional characteristics, academic productivity, academic rank, work hours, and other factors.<sup>3</sup> Finally, an unconscionably high percentage of female physicians report having experienced sexual harassment by colleagues and superiors compared with their male counterparts.<sup>1</sup> Many of these studies have not even considered harassment perpetrated by patients.

Recently, the #MeToo and Time's Up movements have garnered attention on the issue of sexual harassment, which is both welcome and long overdue.<sup>4</sup> Yet, as the aforementioned facts reveal, academic medicine remains far from the optimal environment for women who seek to craft a long and productive career within its confines.

Addressing the gender-based inequities in academic medicine requires that we avoid looking for or scapegoating specific bad actors, and instead acknowledge that the

problem is systemic and enduring. To ensure that we create an inclusive work environment that allows all members of the workforce to thrive and advance, we will need to exhaustively confront each of the obstacles with targeted interventions.<sup>1,2</sup> For example, institutions need to establish clear policies and reporting structures for reporting harassment, to undergird these policies with support for targets and whistleblowers, and to ensure visible consequences for perpetrators, no matter their rank or influence in the organization. A commitment to pay parity across faculty must be accompanied by transparency and consistent criteria for compensation and regular self-audits to ensure adherence. Gender-based inequities within mentorship and sponsorship structures involve a sad circular logic (like promotes like) and must be mitigated with well-resourced programming and cultural change.

The onus is not on individual women, especially individual women who are still in training. However, with knowledge comes power, and the cultural transformation that is needed will require the participation of all, including those who are still trainees. Ultimately, ensuring that women physicians have a fair chance at actualizing their full potential is not just important for the health and longevity of our profession: it is also important for our patients. Diversifying our work environments is integral to ensuring optimal medical, surgical, and public health outcomes.

*Action item: All trainees, as well as those in graduate medical education leadership, should advocate to fix the systems that perpetuate inequity rather than expect female trainees to continue adapting to these broken systems.*

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### TRAINEE SUPPORT AND MENTORSHIP

#### Nurturing Residents—A Rewarding Career

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**Keywords:** graduate medical education, mentorship, program director, training

**Conflict of interest:** None.

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Your responsibilities as a Program Director are to teach your trainees to be good physicians, to inspire them to be good persons, and finally to help their dreams come true.

A good physician is one who can quickly establish rapport and trust with patients, can tell who is sick vs really sick, is comfortable asking for help, is comfortable admitting when they do not know, and once admitting they do not know, is vigorous in trying to learn. Maimonides' saying, "teach thy tongue to say I do not know, and thou shall progress," is still true today. You can help your trainees attain these characteristics through frequent and specific feedback (rather than occasional evaluations), by admitting yourselves when you do not know, and by praising your trainees when they pursue the unknown and share new knowledge. It is invaluable to encourage them to teach, as nothing makes it clearer that you have not really mastered a topic than trying to teach it.

Your trainees will be better persons if you are explicit in stating that you expect them to take good care of their peers as well as their patients. What was most special about Brigham and Women's Hospital's residency program was that several times each year, one of the residents would come to tell me that I had to send another resident home because his/her parent was ill, but the resident didn't want to go because others would need to cover. The resident would then volunteer to cover for his/her colleague and say that I should insist their colleague go home, often adding that I also needed to pay their airfare. Your choice of Chief Residents is crucial to creating a residency in which residents care about and for their peers; kind and nurturing Chief Residents are far better than ones who are all-knowing but competitive and judgmental.

Residents need to be encouraged to dream, and you need to be energetic in helping them make their dreams, not your dreams for them, come true. You will occasionally need to help them pick a dream with legs: one that will survive the development of a new vaccine (a career focused on polio is less than optimal). Asking trainees what this week's fantasy of what they will be doing in 15 years can help them clarify their dreams. Often you will need to encourage trainees to think outside the box, to pursue topics even when there are no formal training programs. You need to help them choose mentors—faculty willing to mentor rather than those just recruiting an assistant for their research. You also need to accumulate resources that enable you to support their academic and altruistic efforts. My strategy was to tell new patients, after they thanked me for seeing them, that I was a really expensive physician, since I would ask for their support of my medical education efforts. Most were glad to

do so. This provided me with the funds to bankroll my trainees' dreams.

Most Program Directors are capable of excelling in so many activities that they often have trouble setting limits on their professional obligations. My cardiology experiences taught me that a little diastole is a good thing. To ensure some diastole in your lives, when you are asked to participate in an activity that is not absolutely necessary, answer that you need to check your calendar (this indicates you've taken the request seriously), and sometime later let the requestee know that you are sorry but "it's just impossible." Do not explain why it's impossible because they will think you are negotiating and might fulfill the request. Protect your time; your family, patients, and trainees need it. And you need time to nurture your trainees who someday will make you proud—the ultimate reward for a Program Director.

## Women's Leadership and Gender Bias Curriculum for Internal Medicine Residents

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**Keywords:** curriculum, gender bias, graduate medical education, leadership, mentorship, women in medicine

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The low number of women medicine faculty in leadership positions and the gender bias experienced by women faculty have been well described, as have faculty programs that can help address the gender leadership gap. However, less is known about the experiences of women trainees during residency, an extremely formative time of career development. The Brigham and Women's Hospital internal medicine residency has created a novel leadership and gender bias curriculum for resident trainees. The current structure of the residency's Women in Medicine program includes networking events with faculty, peer networking events, leadership skill building for women, and gender bias training for both men and women. The leadership for the program includes 1 Chief Resident, 2 senior residents, and 1 junior resident. There are 2 faculty advisors.

The program first began in 2006 with quarterly dinners for women trainees and faculty at a faculty member's home. These dinners offered an opportunity for residents to share their experiences during training, get advice from peers and faculty, find new mentors, and network. In 2011, because of recurrent themes identified at these dinners, a series of 3 annual retreats, each specific to each year of

training, were added to the curriculum. Themes include leadership skills, mentoring relationships, communication skills, and negotiation strategies. These retreats are highly interactive with small-group case discussions and reflection exercises.

Over the last few years, as the new generation of trainees entered our residency and implicit gender bias and microaggressions have been further described in the literature, an implicit gender bias curriculum was created.<sup>1,2</sup> This curriculum, initiated in 2017, is for both men and women and includes education about implicit gender bias as well as strategies on how it can be mitigated via an interactive annual noon conference and twice-yearly workshops led by expert faculty members.

The leadership and gender bias curriculum has been highly rated by residents. It is not unusual to hear spontaneously from residents how the curriculum has helped them navigate challenges during residency.

We have learned important lessons about creating such a curriculum. First and foremost is to listen to your residents. Residents have played an important role in the development and dissemination of this curriculum, which almost certainly has ensured its success for so many years. Another lesson we learned is to be flexible and willing to change the curriculum to ensure that it remains up to date and relevant to current trainees. Last, the program has been successful because of strong support by Program Directors and the Chair of Medicine.

*Action item: Create leadership curriculum programs for women residents and gender bias training for all residents.*

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## RESILIENCY AND WELLNESS

Promoting Wellness during Residency Training: Examples from the Field

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**Keywords:** burnout, depression, graduate medical education, medical training, wellness

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The Accreditation Council for Graduate Medical Education (ACGME) emphasizes wellness as a cornerstone of its common program requirements. It tasks each institution and program with promoting a learning and working environment that demonstrates a commitment to the well-being of residents, faculty members, and the health care team. The ACGME Clinical Learning Environment Review Program, however, documents that 88.8% of trainees report signs of burnout or depression among their faculty or Program Directors.<sup>1</sup> A systematic review showed that 29% of physicians-in-training had depression or depressive symptoms, and these symptoms increased over time.<sup>2</sup>

In 2014, the Council of Florida Medical School Deans surveyed medical students from 9 schools via an anonymous online questionnaire regarding health and risk behaviors, in an institutional review board-approved anonymous survey.<sup>3</sup> Of the 1137 respondents, 79.8% reported their stress level as significant or severe; 70.1% felt they would benefit from psychological resources, although 60.2% admitted that they never used any; 46.3% recently questioned whether they really wanted to become a doctor; 31.3% reported drinking more since beginning medical school; and among the 18.6% reporting prescription stimulant use, 64.3% admitted taking pills not prescribed for them.

Florida medical school Deans and graduate medical education (GME) Associate Deans or Designated Institutional Officials (DIO) were surveyed in 2017 to identify elements of their wellness programs. On the GME surveys, positive responses included incorporation of clinical psychologists, multispecialty learning communities, small-group coaching, hospital-based wellness committees, and defining expectations for wellness, self-care, and burnout. Challenges faced by GME programs were the stigma of using wellness or psychological support services, access to services without retribution, lack of funding, resident schedules and time pressure, residents' skepticism, and faculty buy-in. The GME leaders reported difficulties in linking value to outcomes and assessing effectiveness of programs.

The Florida State University (FSU) College of Medicine responded to the suicide of a medical student in 2017 by establishing a multidisciplinary wellness committee with peer-selected representatives. The committee developed a multipronged approach to assessing and monitoring student, faculty, and staff well-being and implementing programs to improve the culture of wellness. Resource Web pages were developed, specific events were planned, and wellness was integrated into the medical school curriculum.

An FSU GME wellness subcommittee chaired by a clinical psychologist was formed with representation from

all GME programs. Program-level initiatives included meditation and mindfulness training; team-building activities; and didactic programs in stress management, building resilience, and work-life balance. Multicultural social events helped to establish comradery in the programs. Residents advocated for and achieved healthier nutrition choices in the physician lounges. Most programs regularly included wellness activities in structured program didactics.

In response to the high rates of depression, burnout, and suicide among physicians, including those in training, the National Academy of Medicine (NAM) established an Action Collaborative on Clinician Well-Being and Resilience (<https://nam.edu/initiatives/clinician-resilience-and-well-being/>). The Collaborative, led by the NAM, ACGME, and Association of American Medical Colleges, is committed to reversing trends in clinician burnout. Goals include improving baseline understanding of challenges to clinician well-being; raising the visibility of clinician stress and burnout; and elevating evidence-based, multidisciplinary solutions that will improve patient care by caring for the caregiver.<sup>4</sup> The ACGME also maintains well-being resources ([www.acgme.org/What-We-Do/Initiatives/Physician-Well-Being](http://www.acgme.org/What-We-Do/Initiatives/Physician-Well-Being)). These are important action steps for the future to promote wellness throughout the continuum of medical education.

Enhancing well-being in GME programs requires a coordinated approach between the GME sponsoring institution and clinical training sites. Hospital Chief Executive Officers, Chief Academic Officers, Wellness Officers, and Chief Medical Officers should engage with the GME leadership, including medical school Deans, DIOs, and Program Directors in creating wellness initiatives. In addition, program faculty, staff, and trainees need to play an active role in developing wellness programs that are accessible to all members of the health care team and meet the needs of the individuals and the institutions. Surveying the needs of the community and monitoring the outcomes of wellness programs are important to justify the resources devoted by the institution.

*Action item: DIOs and Program Directors should collaborate with medical school and hospital leadership to include the well-being of the workforce and trainees as part of overall strategic planning, developing wellness initiatives and metrics for monitoring success.*

#### Acknowledgments

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## Stress, Burnout, and Depression in Graduate Medical Education

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**Keywords:** burnout, graduate medical education, residency training, stress

**Conflict of interest:** None.

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Over the past 7 years, following the highly publicized suicides of 2 interns in internal medicine in New York City, the graduate medical education community has been galvanized to action to confront the multiple challenges facing trainees and faculty in the current health care environment.<sup>1,2</sup> Although these challenges are not new, the corporatization of American health care, increasing technological challenges in patient care delivery, increasing acuity, a focus on productivity, an unchecked regulatory environment, a poorly designed electronic medical record, and loss of autonomy and control have all conspired to heighten the usual angst the new physician encounters when learning his/her craft. Furthermore, anxiety about competency heightens the tension. Changes in the medical school curriculum as a result of the knowledge explosion have also removed students from being true partners in the patient care experience because of concerns about patient safety among other things. These circumstances are being replicated in the residency environment and may contribute to producing residents who are less resilient than those who entered medicine 40 or 50 years ago.

The epidemic of burnout among physicians and, indeed, among all health care workers has been well documented in the literature.<sup>3</sup> The particular challenges that face today's trainees include financial stress, prior medical and psychiatric issues, isolation from friends and family, loss of support systems, inadequate mentorship, and the higher expectation for and increasing inability to develop appropriate work-life integration. Moreover, they are faced with overburdened

faculty who also struggle with these issues and who do not have the “bandwidth” to provide adequate support. Students still enter medicine for most of the reasons that all of us did: a powerful desire to treat and even cure patients and relieve suffering. Unfortunately, the balance between the stresses and the joys of medicine have tipped precariously in the wrong direction. All these issues present additional challenges for women trainees, especially those of color, who must also confront the long-standing male hierarchy, microaggressions and macroaggressions, and discrimination—both overt and subtle.<sup>4</sup>

Causes and solutions for these issues are both individual and systemic, with an emphasis on the latter. There should be more open discussion between trainees and faculty of the challenges that each face in the work environment, with interactions focused on promoting the development of solutions that are specific to their experiences. Such solutions may include increased, destigmatized access to confidential mental health services; opportunities for increased community engagement to address isolation; mentorship for career and work-life integration issues; and recognition of the specific issues that women, including those who are gender underrepresented and/or underrepresented minorities, might face. In addition, discussions regarding the stresses of career transitions (eg, student to resident, resident to faculty) are especially important. Solutions must also include efforts to find ways to address workplace inefficiencies, to build resilience, and to develop cultures that promote community, engagement, autonomy, respect, and shared values. All initiatives in these areas should be supported and encouraged by the health care system.<sup>2</sup>

Resident, fellow, and faculty physician well-being is an important initiative of the Accreditation Council for Graduate Medical Education ([www.acgme.org/What-We-Do/Initiatives/Physician-Well-Being](http://www.acgme.org/What-We-Do/Initiatives/Physician-Well-Being)), and resources specific to the graduate medical education community are regularly updated on its Web site, including specific resources related to the coronavirus disease 2019 (COVID-19) pandemic. On a broader scale, both resources and evidence-based solutions are also being disseminated through the Action Collaborative on Clinician Well-Being and Resilience, an initiative of the National Academy of Medicine (<https://nam.edu/initiatives/clinician-resilience-and-well-being/>) that includes a network of more than 60 organizations committed to addressing clinician burnout.

*Action item: We need to identify key factors contributing to stress and burnout, develop approaches to addressing these issues both at the individual and systemic levels, and implement solutions that increase the well-being and resilience of trainees and faculty.*

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## MEDICAL HUMANITIES

### Using Story to Change Medical Culture

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**Keywords:** graduate medical education, medical humanities, narrative medicine, storytelling

**Conflict of interest:** None.

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Dr Rita Charon started the first program in narrative medicine at Columbia Medical School in 2000, beginning the formal use of storytelling in medical education. Since then, we have learned that reading, writing, and even drawing stories—our own and others’—benefits doctors as well as their patients. Yet these storytelling opportunities remain few and far between.

Medical residents and practicing physicians need a story-driven curriculum that fits easily into an already packed schedule. This short exposure could serve as a building block for a more reflective and humanistic health care culture in programs or institutions. The ideal program would be downloadable, easy to facilitate, and provide concurrent continuing medical education for interested clinical faculty.

The author developed and presented a pilot version of such a program in 2018 at the American Medical Women’s Association 103rd Annual Meeting in Philadelphia, Pennsylvania. The program, framed in a slide presentation, spans 60 minutes and guides participants through 4 “reflection exercises” focusing on several themes that affect medical culture and practice. Each exercise opens with an embedded audio or visual clip from 1 of 2 published works: a physician memoir or a short documentary film. Each clip is followed by a short debrief video by the author of these 2 works, Jessica Zitter, MD, MPH, then by 1 or 2 prompt questions for the group. The program can include 3 or 4 themes, depending on allotted time.

The program’s key stories were extracted from an Oscar- and Emmy-nominated short documentary, *Extremis*,<sup>1</sup> and

a memoir, *Extreme Measures: Finding a Better Path to the End of Life*.<sup>2</sup> Both works dive deep into some of the most difficult and rarely discussed obstacles that challenge our practice as we care for patients with life-limiting illness.<sup>3</sup> Both have resonated deeply with health care audiences since their publication in 2017 and are now used around the country in teaching capacities too numerous to list.

Each exercise explores a challenging aspect of medical culture not commonly discussed in clinical environments. Some examples include avoiding patient emotion, the fear of being wrong, the fear of judgment or conflict with colleagues, and our collective tendency to make uninformed judgments about people and situations. For instance, the “fear of being wrong” themed discussion starts with a story of a physician relaying a prognosis to a family, which turns out to be wrong, and explores the physician’s subsequent sense of shame and self-doubt. By addressing such scenarios and inviting others to join in, we can all, as a community, work together to change shame into humility, fear into courage, and numbness back into the compassion.

Aspects of this program have been already piloted in internal medicine, anesthesiology, and pulmonary/critical care programs and were met with enthusiastic response from both faculty and trainees. A 60-minute downloadable curriculum is being developed for physician training in a variety of medical specialties.<sup>3</sup> Educational programming is also being developed using a newly released film, “Caregiver: A Love Story,”<sup>4</sup> which explores the understudied issue of family caregiver burden.

*Action item: Introduce storytelling and its humanizing impact in medical training and practice environments with a program that is easy to facilitate and does not require much time.*

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## Art and Critique in Medicine

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**Keywords:** art and medicine, graduate medical education, medical humanities, visual art

**Conflict of interest:** None.

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Recently there have been increased efforts to integrating medical education with the humanities, particularly with visual art viewing. These programs are usually based on partnerships between art museums and medical schools. They use the concept of Visual Thinking Strategies, a pedagogic approach using observation of curated art to explore the meaning behind them.<sup>1</sup> Prior research has shown that art viewing curricula can help to enhance visual skills, improve tolerance of ambiguity, and increase empathy in medical learners. These programs are based on group visits to art museums and sometimes include group discussions as a means for sharing ideas.<sup>2</sup> The museum-based curricula studied have been based on individual collaborations between medical schools and well-resourced art museums headed by curators. However, not all medical learners have access to these programs because of the resources required for their creation and maintenance.

We describe a simple teaching tool for visual art-based programs that can be used by medical educators and learners to guide small-group visits to art museums or galleries and improve public speaking, visual thinking, and wellness among medical learners, regardless of their knowledge of art curation.

We developed Art-Heal, a simple educational tool consisting of 3 parts to be used by small groups of medical learners in curated art visual spaces. The goal was to empower medical educators, who are not trained in art or curatorial studies, to lead programs using a set of simple directions that can be implemented with any group of learners in any space and with a variety of visual art.

The first part of the Art-Heal tool allows learners to improve their public speaking skills and confidence in ambiguity by having them speak about new works of art using a guided verbal script. The second part hones the learners’ observation abilities by having them find similarities and unique qualities in visually complicated pieces of art. The third part of the curricula focuses on having learners choose pieces of work that can help them explore difficult patient experiences during their training to help facilitate discussions about common challenges they face as physicians. The opportunity for reflection also creates space that supports resilience and well-being. By simplifying the process of visual learning while keeping it open ended, this visual art observation tool can be implemented in any medical learning environment to improve equity in the access to education innovations.

*Action item: A simple visual art teaching tool can be incorporated into graduate medical education wellness initiatives*

to guide small-group visits to art museums and promote verbal expression, visual thinking, and self-reflection, regardless of art curation knowledge.

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## PREPARING TRAINEES FOR PRACTICE

### Developing a Fellows' Academy to Prepare Senior Trainees for Independent Practice

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**Keywords:** career preparation, entering practice, fellowship, graduate medical education

**Conflict of interest:** None.

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In our university-based Obstetrics and Gynecology Department, we developed a Fellows' Academy to bring together fellows across subspecialties to discuss common issues as they prepare for independent practice and to enhance a broader sense of community. Although most academic programs equip fellows with the clinical knowledge and surgical expertise necessary to function independently, we rarely provide trainees with the nonmedical information<sup>1-3</sup> that is equally essential for them to flourish in practice. We set out to develop a Fellows' Academy to provide our fellows with an inclusive educational forum, interdivisional mentorship, networking opportunities, and wellness activities.

We met with our fellowship Directors, Chair, educational leadership team, and the fellows themselves. All supported crafting an academy dedicated specifically to the unique needs of our fellows. We conducted an initial needs assessment survey to determine interest, meeting frequency, and topics of interest. About half of the fellows completed the needs assessment; 70% of respondents felt that a Fellows' Academy would be beneficial to their training, and 30% were unsure. We surveyed fellows regarding their interest in topics ranging from an overview of the US health system to conflict resolution, team building, contract negotiation, malpractice insurance, personal finances, and delivering "bad news."

In response to this needs assessment, we planned 3 talks for the first year of our Fellows' Academy—1 on malpractice and 1 about preparing for a job interview—both requested

by 80% of respondents. We also included a joint wellness session with residents about writing a condolence letter to a patient or her family. Talks were scheduled for day and evening times to accommodate a variety of schedule preferences, and fellows were notified well in advance so they could plan accordingly.

Fellows evaluated each individual session as well as the overall program. All 3 sessions received extremely positive reviews, with a mean rating of 5.0 of 5.0. Representative comments included the following: "Thanks for organizing, this was a great and underaddressed topic." and "Struggling with home-life balance and my ambitions to be innovative and focus on driving my career to what I imagine/have pictured. Really helpful." At the conclusion of the academic year, 100% of respondents felt that the Fellows' Academy should be continued. Based on this enthusiastic response, we queried fellows about adding a Fellows' Retreat for the following year, and 100% of respondents were in favor.

Our inaugural retreat was an all-day event, held off-campus. Nearly all fellows asked for education regarding personal finances, so we brought in a team of financial planners for an in-depth informational morning session. The afternoon event was a fun team-building event: a scavenger hunt through the Museum of Modern Art in New York, NY. The day concluded with a cocktail reception attended by our Chair and fellowship Directors. Coverage of clinical duties was provided by faculty, residents, nurse practitioners, and physician assistants. Funding was provided by each of our clinical divisions using an equitable hybrid model. Fellows in our department appreciated the opportunity to come together as a community to partake in junior faculty development events relevant to their stage of training.

*Action item: A departmental Fellows' Academy provides senior trainees with an inclusive community forum in which to discuss common issues as they prepare for independent practice.*

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## Physician Reentry to Practice: The Role of Graduate Medical Education

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**Keywords:** graduate medical education, physician reentry, women in medicine

**Conflict of interest:** None.

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Workforce preparedness in medicine requires that residents understand the full range of issues that they may face in practice. This can include such disparate topics as emerging public health issues, disaster preparedness, diverse practice settings, and navigating the changing business of medicine. However, topics increasingly include more personal aspects of the physician's life, such as physical and mental health, burnout, and integrating responsibilities outside medicine with work demands. The last can be challenging, especially for women faced with the need to take time away from medicine, either for childrearing or other family issues for which they have primary responsibility. To prepare for the entirety of their careers, trainees need to understand that taking time away from their career is not unusual but must be planned.

According to the American Medical Association,<sup>1</sup> *physician reentry* refers to “a return to clinical practice in the discipline in which one has been trained or certified following an extended period of clinical inactivity not resulting from discipline or impairment.” This does not refer to retraining for another specialty or practice remediation, and the time away from practice is voluntary. The length of “an extended period of clinical inactivity” is defined by state regulations and can vary considerably.<sup>1</sup> Physician reentry is gaining more attention because of increasing public demand for accountability, the physician workforce shortage, and more parents (especially women) in the workforce. The process of physician reentry also enhances the return on investment for the increasing personal and societal cost of training physicians.

The most commonly cited reasons that physicians leave practice are health, retirement, career change, burnout, and family needs. There are no gender-based differences in the number of physicians who leave practice for health reasons. However, men are more likely to leave practice to pursue other career options, whereas women are more likely to leave to raise children or care for other family members. Since women frequently reenter practice once children start school, they are typically younger than men when attempting to return to practice.

Physicians with a period of clinical inactivity longer than allowed by their state may be required to undergo assessment of clinical competency and may need a period of monitored practice before active licensure is granted. Finding monitored settings or more intensive educational experience mandated by state medical boards can be difficult. In addition, the entire process can be long and expensive, requiring time away from home for evaluation.

Led by the American Medical Women's Association<sup>2</sup> and other organizations, efforts are under way to address these hurdles and make the reentry process easier to navigate. Essential information pertaining to local requirements is available through the Federation of State Medical Boards.<sup>3</sup> In the meantime, it is important for those involved in graduate medical education to ensure that learners understand the implications of taking time away from practice. If leaving practice, physicians need to maintain their continuing medical education and board certification, if possible, to facilitate the reentry process. With more women entering medicine, taking time away will become more commonplace. Women physicians should plan as carefully for their time away as they do any other aspects of their careers.

*Action item: Educate trainees about the need to plan ahead before taking time off during their careers, including the need to research state license requirements and alternative options for minimal clinical activity. Trainees should understand that even if they do not anticipate returning to medical practice, circumstances can change, and they should keep their career options open.*

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## EXPANDING GRADUATE MEDICAL EDUCATION

### So You Think You Want to Start a Family Medicine Residency

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**Keywords:** family medicine residency, graduate medical education, primary care training

**Conflict of interest:** None.

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Health outcomes and costs in the US are strongly linked to the availability of and access to primary care physicians (PCPs). Patients with a PCP have better health outcomes while spending less overall on health care than those without a PCP. To ensure that all individuals in the US have access to a PCP, it is estimated that we will need an additional 1700 primary care residency slots to fill the gap of 33,000 PCPs by 2035.<sup>1</sup> These projections underscore the

need for more primary care training programs, particularly in regions of greater need. However, starting a new family medicine residency can be daunting. Based on our experience in establishing clinical training programs in underserved urban communities, we highlight the key steps on the road to a successful program, which include partnership, mission alignment, and drafting an agreement that represents a leadership collaboration among all partners.

**Partnership:** Community health centers (CHCs) are more cost effective and have produced better outcomes for medically complex patients with social risk factors than other models.<sup>2</sup> Residents who train in CHCs are 3 times more likely to remain in a CHC after graduation.<sup>3</sup> Support from an academic institution can enhance the educational resources of this model and bring community and academia together for an optimal partnership.

**Alignment:** Choosing a viable partnership can be challenging. The first step is mission alignment. Community health centers have a natural commitment to underserved individuals but not education. Academic institutions are comfortable with education but may not have a focus on underserved populations. Potential partners should negotiate priorities, which may include at-risk patient subgroups, leadership structure, space for innovation, and financial resources. Identify champions in each organization who share the core mission and values. Identify value added; for example, CHCs find that recruitment of attending physicians is easier when the centers also have a residency. The CHCs can access academic resources to enhance patient care. An underserved community-based residency can support a not-for-profit status for an academic institution and offer clinical training slots for medical students.

**Agreement:** Develop vision, mission, and aims statements that include strategic priorities from both organizations. The statement should reference serving the underserved community as well as prioritizing education. This document will be a critical tool through negotiations about finances and structure of the residency curriculum alongside patient care. Community health centers are often candidates for governmental as well as private funding. Many funding streams are eligible to only CHCs or only academic institutions; this unique partnership can leverage both. The agreement should include financial support for at least 5 years, employment of residents and faculty, malpractice, chain of command, and dispute resolution. It may also include hospital admissions, community benefit, faculty development, information technology resources, and other negotiated items.

**Decision Making:** Residency and CHC leadership should overlap at the highest level so decisions are in mutual agreement. We recommend a leadership committee that meets regularly to review successes and challenges. It is possible that a third partner will exist, such as a community

hospital that supports inpatient admissions. If so, ensure mission alignment as well as equal participation in leadership oversight.

**Curriculum:** Once the agreement is signed, curriculum development may begin. Although Accreditation Council for Graduate Medical Education requirements must be fulfilled, it is recommended that during curriculum development, the faculty leverage areas of flexibility to reflect the needs of the community. Review health disparities, chronic illnesses, addiction, and other high-stake issues that impact the specific patient population; develop curriculum to inform and improve health care delivery specific to their needs, and involve partners and other stakeholders in development.

**Recruitment:** During recruitment, screen for applicants that show a vested interest and highlight the specifics of community education. Develop ongoing and rapid evaluation of the curriculum to improve and advance innovation.

*Action items: Identify champions and mission alignment among all potential partners. Invest time in writing a thoughtful mission statement and program aims that reflect the priorities of all partners. Begin!*

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## Graduate Medical Education Expansion to Rural Community Hospitals: Residency Training Beyond the Academic Health Center

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**Keywords:** expansion, graduate medical education, primary care, rural medicine

**Conflict of interest:** None.

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In 2016, the Indiana University School of Medicine (IUSM) and rural community hospitals began to address a major need for additional Graduate Medical Education (GME) positions in Indiana. According to the 2019 Association of American Medical Colleges (AAMC) Physician Workforce Data Report,<sup>1</sup> Indiana ranks in the lower

quartile for primary care physicians and GME trainees. These needs are greater in the rural areas of the state, yet only 14% of GME trainees in Indiana are trained outside the metropolitan Indianapolis region. The IUSM trains more than 80% of GME residents and fellows in Indiana, but none trained in rural communities.<sup>1,2</sup>

By attracting residents with an interest in primary care and training them in rural communities, we hope to increase recruitment and retention of physicians to underserved rural communities. Data from the AAMC show that 54% of active physicians in Indiana trained in Indiana GME programs, and if a physician did both undergraduate medical education and GME training in Indiana, 77.5% stayed in the state to practice.<sup>1</sup> Yet each year, Indiana was losing more than 130 residency physicians to other states,<sup>3</sup> despite the estimate that Indiana will need an additional 817 primary care physicians by 2030.<sup>2</sup>

To help meet the physician needs of the state, the IUSM developed a structured pathway for rural residency expansion and accreditation. Our stepwise process included developing relationships with faculty and C-suite administrations of interested GME-naïve hospitals, guiding funding opportunities, creating strong relationships with IUSM's clinical departments, and finally, successfully integrating these newly accredited programs with the IUSM Office of GME. With a focus on primary care and psychiatry and with assistance from state-funded GME feasibility and expansion grants, the IUSM GME Office undertook GME expansion at a statewide level.

To facilitate the process, 2 new resource and oversight positions were created in the IUSM GME Office: an Assistant Dean for GME statewide expansion and an expansion coordinator. Using the experience of the GME Office and accreditation resources from the Accreditation Council for Graduate Medical Education (ACGME), a list of tasks was created, along with a reasonable timeline for completion of each task required for establishment and successful accreditation of an ACGME residency. Totaling 64 items in 9 content areas and spanning the 2 years before the start of educating residents, our timeline helped hospital partners and academic departments understand and plan for the needs of new programs. Importantly, the plan clearly delineates responsibilities among hospital partners, the sponsoring academic department, and the GME Office.

Four programs have been accredited by the ACGME: 1 psychiatry, 1 internal medicine, and 2 family medicine residencies. To facilitate program development, 1 region of the state developed a hospital consortium with an Assistant Designated Institutional Official reporting to the IUSM Designated Institutional Official, to assist with local oversight, fundraising, and direct communication with the hospital administration. Creating this comprehensive process

enabled the IUSM GME Office to reduce barriers for establishing residency programs in GME-naïve rural community hospitals. Training individuals at community residency sites under the GME Office at a statewide medical school offers credibility, name recognition, and additional academic resources. We provide a formal system for oversight of these programs at both GME and departmental levels. These programs have the same high-quality educational experiences and standards as the programs at the academic medical center. By training residents interested in community medicine in a community hospital, we hope to help decrease the rural physician deficit currently experienced in Indiana and better serve the citizens of our state.

*Action item: Academic medical centers can create successful partnerships with GME-naïve, rural hospitals to create academically affiliated primary care residency programs. These residency programs may help meet the health care needs of underserved communities while delivering high-quality medical training to residents of ACGME-accredited training programs.*

#### Acknowledgments

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## FACULTY DEVELOPMENT AND ADVANCEMENT

### Training Future Faculty with the Clinician-Educator Training Pathway

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To be successful as clinician-educators, early-career faculty members have several important needs.<sup>1</sup> These include an understanding of the criteria for promotion and tenure, pathways for career development, expert faculty mentors

and role models, and a culture that supports educators. The Indiana University School of Medicine (IUSM) Clinician Educator Training Pathway is a 2-year program designed to

- prepare residents and fellows for careers as clinician-educators
- support participants' professional identity formation as educators
- train participants in teaching strategies, education leadership, and education research
- assist participants with developing education scholarship
- integrate participants into a community of educators that can support their work and development.

After an initial pilot program,<sup>2</sup> the IUSM Department of Medicine launched and enrolled the first cohort of residents and fellows in 2018. In 2019, the program expanded to accept residents and fellows from all IUSM graduate medical education (GME) training programs. Our current cohort includes 15 residents and 6 fellows from 12 GME programs. Participants attend monthly, 90-minute skill-building workshops presented by IUSM faculty. These workshops address diverse topics such as simulation, mentoring, teaching communication skills, the importance of diversity in education, and how to be promoted based on education work. During the first year, participants complete asynchronous curriculum development modules. In parallel with the modules, they develop a curriculum of their own. During the second year of the program, they can either implement and evaluate this curriculum or complete another education scholarship project. They also have their teaching peer reviewed and review a peer's teaching. Benefits to participants include a certificate, credibility when applying for clinician-educator jobs, membership in a community of educators, and a better understanding of the role of the clinician-educator and criteria for promotion, which will help trainees be successful earlier in their careers.

We have been studying the professional identity formation of our participants. Through interviews every 6 months, we have learned that the core elements of Socio-Cognitive Career Theory (self-efficacy, outcomes expectations, and personal goals)<sup>3</sup> and the possible identities theory<sup>4</sup> fit nicely with our participants' identity development. We have used our findings to enhance the program in several important ways, to support participants' professional identity formation. These program elements include encouraging longitudinal teaching experiences, improving scaffolding education scholarship projects, featuring role models who describe their career pathways, and encouraging reflection on teaching experiences and feedback received. During our skills workshops, we are intentional about introducing our participants into the community of faculty educators.

This helps them feel part of a community of practice, which is a crucial component of a strong professional identity.

The Program Director's salary is supported through the GME Office and the Department of Medicine. Administrative support is provided through the GME Office. Participants report high levels of satisfaction with the program and a strong sense of community. Our participants' curricula and education scholarship projects benefit the IUSM GME and undergraduate medical education programs. For example, one fellow developed an echocardiology curriculum for internal medicine residents. As the program matures, we look forward to engaging participants from a variety of GME programs, engaging our participants to help meet teaching needs of the medical school, and increasing the scholarly productivity of our participants.

*Action item: Institutions should consider whether they are adequately preparing trainees to take on the role of clinician-educators and whether a GME-wide program might enhance recruitment and retention of talented trainees.*

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## Advancing an Academic Career in the Graduate Medical Education Environment

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Building a successful career in academic medicine requires interacting with institutional systems for academic promotion and award of tenure (APT). Besides obvious advantages for an individual, a successful promotion potentially enhances the residency program, specialty department, and institution, including in accreditation review.<sup>1</sup> Nevertheless, many clinical faculty members distrust the APT system, and regard it as tedious, poorly related to their

everyday activities, and biased toward classical research.<sup>2</sup> Faced with escalating demands from clinical and educational responsibilities, an increasing number of clinicians are delaying application for academic promotion—or declining to consider it altogether. For multiple, complex and often synergistic reasons, women have slower rates of promotion than do their male colleagues.<sup>3</sup> In every clinical specialty fewer women achieve professorial rank than do men; overall in 2019, 11.6% of all female full-time clinical faculty members were full professors, compared with 25.8% of their male colleagues.<sup>4</sup>

An understanding of basic concepts and practices in APT provides insights on why the system can be so difficult for female clinicians to navigate. For faculty based in graduate medical education (GME), the APT system is particularly challenging because of the many differences between GME programs and classic academic departments, plus a general identification of GME programs with the health system (or hospital) rather than the medical school. To build a successful academic career in the GME environment, a faculty member must take her career of clinician-educator or clinician-investigator *seriously*. The following are recommended:

- be on the APT track that best matches the position description *and* daily responsibilities
- learn about the formal (and informal) APT process, criteria, expectations, and timelines
- optimize energy and time; be resilient and persistent
- identify and prioritize high-yield activities
- ask (judiciously) to be involved; negotiate effectively; say “no” positively when necessary
- excel in daily activities (and document the evidence to prove it!)
- find scholarship in everyday activities: use everything at least twice (eg, parlay grand rounds talks and lectures into review articles, clinical cases into case reports, and personal experiences into reflective essays; participate in discussions through letters to the editor)
- document *everything* in the institutional format using quantity, quality, and impact measures
- ensure regular *robust* documented reviews of progress
- secure APT advisors inside and outside one’s own division, department, or specialty

- seek and use faculty development in one’s institution, specialty organizations, or other organizations
- become involved in national organizations.

Strategies and resources are available to build appropriate credentials and proactively prepare for APT in the GME environment.<sup>1</sup> Ideally, preparation for academic promotion begins early; recruitment may be the best time to secure the optimal academic track and position description. Faculty with a “promotion mindset” use daily activities and regular reviews to contribute to career growth. Regular documentation of achievements in the institutional format builds the evidence and helps monitor progress toward promotion. The promotion dossier must robustly convey achievements to reviewers, many of whom are research focused and/or have nonclinical backgrounds. Faculty based in GME programs may need to take additional steps to ensure that the required documents (often formatted for research careers) convey the full extent and importance of their achievements. Nevertheless, a GME-based faculty member can present a complete, valid, and persuasive dossier that enables reviewers from diverse backgrounds to appreciate the quantity, quality, and impact of the applicant’s achievements and her value to the institution—and above all, provides the evidence and motivation for reviewers to enthusiastically recommend academic promotion.

*Action item: Find out everything you can about the promotion system at your institution. Schedule a serious discussion with your departmental or division Chair about your academic track and practical strategies to fulfill all the expectations for your next promotion.*

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