VOL. 42 ■ NUMBER 6 ■ JUN 19
SGIM Forum
Society of General Internal Medicine

PERSPECTIVE: PART I

A CALL TO ACTION: SUPPORT OUR FEMALE INTERNAL MEDICINE RESIDENTS

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The issue of gender bias and women in medicine has become a "hot topic" in the medical field today, and rightfully so. As of 2019, women now make up more than 50% of incoming medical students; yet, female physicians are still dealing with a gender pay gap and a disparity amongst leadership positions held within healthcare institutions.[1] Fewer female physicians choose to pursue careers in academic medicine compared to their male counterparts.[1,2] Various healthcare organizations—including SGIM, the AMA, and the ACP—have highlighted suggestions to address this disparity.[2] While the progress being made in these areas is encouraging, most initiatives focus on either medical students, or female faculty.

Junior and senior female faculty have many places to find support for gender-based career issues, including the SGIM women's caucus, the American Medical Women's Association (AMWA), and institutional women's groups targeted to empower female physicians and help improve retention in academic medicine and promotion. These same groups often have outreach to female medical students. Zucker SOM, for example, recently opened its own chapter of AMWA for medical students. Despite these great efforts, there is a glaring gap when it comes to a group that may, in our opinion, need it most—female residents. As a female resident, the struggles are many—for example, burnout and imposter syndrome seem to be at an all-time high, while control over one's life and schedule can sometimes feel limited. One recent study found that female internal medicine residents were found to report significantly more emotional exhaustion in the workplace when compared to their male counterparts.[3] Possibly more concerning are the results of a 2008 study, in which 30% of female internal medicine residents rated gender as their greatest disadvantage in directing patient care, while no male residents listed gender as an issue.[4]

These differences between male and female trainees are concerning. During residency, critical decisions are made that determine career trajectory. Given these coinciding factors, the need to provide support to this group is clear, and yet innovations, curricula, and programs in this arena are lacking. In reviewing the literature, we have found few successful programs targeted specifically to female trainees. One that stands out is the Brigham and Women's Hospital program for female Emergency Medicine residents that provides mentoring and professional development trainings for female trainees toward academic careers.[5] Other programs, such as Yale's Office for Women in Medicine, serve as a hub for residents, students, and faculty, as a resource to be matched with mentors, networking opportunities, and attend talks given by successful female physicians.

The reasons for this gap in support, mentoring, and professional development aimed at female residents is likely multifactorial. Residents are busy and often overworked, and it is often difficult to ask them to give any extra time to a training, mentoring, or support session. Residents are also at the whim of their schedule, changing from dayshift to nightshift, working weekends, and some having to travel between various sites. Furthermore, relationships with potential mentors are often brief, with

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HOW DO YOU MEASURE, MEASURE A YEAR?

Joseph Conigliaro, MD, MPH, Editor in Chief, SGIM *Forum*

Five hundred twenty-five thousand six hundred minutes
Five hundred twenty-five thousand moments so dear
Five hundred twenty-five thousand six hundred minutes
How do you measure, measure a year?

—"Seasons of Love" (from the Broadway musical "Rent")
by Jonathan Larson

The faculty in my division consists of hard-working clinicians, educators, and researchers who each bring their own special talents to our work and tripartite mission. I am immensely proud to call them my colleagues. They care for patients, they teach, and they add to the literature by doing research. Their diversity of roles, however, makes it difficult to judge or quantify their achievements. How do you judge the value of an academic general internist who practices patient centered evidence based care? How do you support and reimburse them financially? What if one of those general internists is primarily responsible for the training and education of medical residents, medical students, and other healthcare professional students? What if one is an accomplished researcher who brings in grants and recognition for their institution vs. one who is early in his career and looking for his first NIH grant or career development award? Should these individuals receive the same amount of compensation as full-time clinicians with the same tenure? Should they receive a higher or lower salary? These are questions many leaders in general internal medicine and other departments and divisions grapple with—much has been written about it or debated. In my role as Division Chief, part of my job is to advocate for our Division faculty when negotiating with our organization.

Who would have ever thought that paying academic clinicians fairly would be so hard? Judging the productivity of clinical faculty is something we have struggled with on several levels. This is an editorial, hence my opinion, and not meant to be a definitive piece on the subject, but merely the thoughts of someone struggling with doing this right. From a financial perspective, if you look at a profit-and-loss statement and count the costs against the revenues that a generalist brings in, then it appears we lose money; a drain on the organization. If, however, you look at "upstream revenue" then the picture looks better and we are considered a loss leader; in other words, even though our services do not directly bring in substantial revenue, we attract and manage patients for the healthcare system, who

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BUILDING A PHYSICIAN WORKFORCE TO ADDRESS THE SOCIAL DETERMINANTS OF HEALTH

Karen DeSalvo, MD, President, SGIM

". . . to understand the context of our patient's health, not only their disease, is foundational for medicine and general internal medicine. It is even expected that we document a social history in notes recording encounters with our patients. Even without this, we all recognize the role of social needs in contributing to illness and disability as well as the impact of social needs on their ability to deliver effective health care. . . ."

Throughout this year, I plan to devote my column to cover some of the exciting work happening in the United States to address health beyond clinical excellence. I believe that understanding and addressing the social determinants of health (SDOH) to be a part of the core work we do as general internists, whether we consider ourselves predominantly clinicians, researchers, educators, policy makers, or leaders. We may address the social determinants directly or in partnership with others. It is essential because every one of our patients, and likely many members of our family and community, are impacted by the social determinants of health. This concept, that we need to have the capability and capacity to care for the whole person, inclusive of the understanding of their context, is not a new one for us. Whether our core site of work is in the inpatient environment, the outpatient environment, or someplace else, to understand all the drivers of health for our patients is critical.

In my first *Forum* column, I introduced the broad concepts about the social determinants of health. In that May 2019 issue, I indicated that health and wellbeing are foundational to economic vitality and business competitiveness, personal achievement, and prosperity. An increased level of health for all Americans is key to the promotion of thriving lives, economies, and communities. Healthy People 2020 defines the social determinants of health as the "conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."[1] Health outcomes strongly relate to these upstream social determinants of health, which include a variety of non-medical factors such as food access and nutrition, transportation, housing,

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The SGIM *Forum*, the official newsletter of the Society of General Internal Medicine, is a monthly publication that offers articles, essays, thought-pieces, and editorials that reflect on healthcare trends, report on Society activities, and air important issues in general internal medicine and the healthcare system at large. The mission of the *Forum* is to inspire, inform, and connect—both SGIM members and those interested in general internal medicine (clinical care, medical education, research, and health policy). Unless specifically noted, the views expressed in the *Forum* do not represent the official position of SGIM. Articles are selected or solicited based on topical interest, clarity of writing, and potential to engage the readership. The Editorial staff welcomes suggestions from the readership. Readers may contact the Editor, Managing Editor, or Associate Editors with comments, ideas, controversies, or potential articles. This news magazine is published by Springer. The SGIM *Forum* template was created by Howard Petlack.

CLINICAL REASONING THROUGH PRE-OPERATIVE DYSPNEA: LISTENING TO THE PATIENT'S CLUES

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A 55-year-old gentleman was referred to our hospitalist-led, pre-operative medicine clinic before paraesophageal hernia (PEH) repair. He had dysphagia, chronic reflux, and chronic progressive dyspnea with mild-moderate restriction on PFTs, attributed in part to his paraesophageal hernia.

The aim of pre-operative assessment is to determine a patient's peri-operative risk, employ strategies to mitigate these risks, and thereby reduce peri-operative morbidity and mortality. While referring physicians often view a pre-operative evaluation as synonymous with "cardiac clearance," the aim is to understand all co-existing medical conditions, as each may confer increased peri-operative risk. While his dyspnea may in part be attributed to the PEH, it is also prudent to complete a through history and physical examination to exclude cardiopulmonary causes of dyspnea. The 2014 ACA/AHA guidelines for pre-operative cardiac evaluation recommend transthoracic echocardiogram (ECHO) to assess LV function in patients with dyspnea of unclear etiology or with known heart failure and a change in symptoms or functional status.[1] In addition to left ventricular systolic failure, the differential for dyspnea should include other cardiac etiologies, such as symptomatic arrhythmia, valvular or ischemic disease, or pulmonary hypertension and/or associated right heart failure.

Our patient has known non-ischemic cardiomyopathy, with LVEF 30% five years prior, deemed tachycardia-mediated, given persistent atrial fibrillation. He then underwent AV node ablation and pacemaker placement. Given his dyspnea, his cardiologist had recently updated an ECHO, which showed LVEF 60%. Diastolic dysfunction was considered, recognizing this is also associated with worse post-operative outcomes,[2] but he did not appear volume overloaded. There was also concern that his dyspnea could represent an anginal equivalent. Nuclear perfusion stress showed a fixed defect, and coronary catheterization revealed only diffuse RCA irregularities. He had normal pacemaker function.

"While we had immediate access to a thorough past cardiopulmonary testing and prompt laboratory results, such a case highlights the importance of avoiding premature closure of the differential for dyspnea to just cardiac or pulmonary causes."

A comprehensive cardiac evaluation has essentially excluded symptomatic heart disease. Limiting pre-operative evaluation to cardiac etiologies, however, fails to account for other co-morbidities. Pulmonary peri-operative complications are as common as those related to cardiac disease and may even be more costly.[3] Among non-cardiothoracic surgical candidates, routine pre-operative spirometry and chest X-rays are not recommended unless indicated by symptoms concerning for undiagnosed pulmonary disease. Obstructive Sleep Apnea (OSA), obesity hypoventilation syndrome, and pulmonary hypertension should be considered, as they are prevalent and likewise associated with increased perioperative complications.[4]

Dedicated pulmonary evaluation confirmed CPAP adherence for known OSA. His recent ECHO had also shown normal RV function and RVSP 29mmHg. Though he remained anticoagulated for his atrial fibrillation, given a remote history of a DVT, Chest CT was obtained and negative for chronic thromboembolic disease. The CT also showed no parenchymal disease. The remaining component of his dyspnea was attributed to restrictive lung disease (FVC 79% predicted, FEV1 89% predicated, ratio 0.89) due to obesity (BMI 42kg/m^2), his PEH, and deconditioning.

In addition to the very through cardiac evaluation, he has had an extensive pulmonary evaluation. Still, we have lingering concerns that his dyspnea remains significantly out of proportion to his mild-to-moderate restrictive defect.

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At the time of his pre-op clinic visit, he endorses ongoing exertional dyspnea, then goes on to describe this more as extreme fatigue than overt dyspnea. It has slowly progressed over the past year, then accelerated over the last six months. Now, he can barely walk across a room. Medications included pantoprazole, hydrochlorothiazide, and warfarin. He apologizes that he cannot recall the name of a new medication for his restless leg syndrome (RLS), then mused that perhaps he was so fatigued because his severe RLS was costing him sleep.

The patient's distinguishing between overt exertional dyspnea and extreme fatigue helps redirect our diagnostic focus. We start by wondering whether his self-reported severe RLS is a directing "red flag" for underlying pathology or a misdirecting "red herring". Is he tired because of poor sleep quality or is he fatigued due to underlying pathology such as iron deficiency, which itself is leading to severe RLS?

Exam revealed a fatigued appearing gentleman. Cardiopulmonary exam was normal, including HR 74 bpm, BP 113/72 mmhg, and O2 saturation 100% with normal respiratory rate. Labs revealed HCT 32% and MCV 68.4fL, down from HCT 39% with MCV 85.3fL six months prior. Iron studies demonstrated transferrin saturation 3% and ferritin 4 ng/mL (27% and 98.4 ng/mL, respectively, one year prior). INR was therapeutic at 2.35. He denied melena or hematochezia. His upper endoscopy with PEH evaluation had revealed mild gastritis with several small gastric fundus ulcerations.

Iron deficiency anemia (IDA) to this degree is likely contributing to our patient's severe fatigue. In addition to its role in erythropoiesis, iron is involved in cellular oxygen transport, the electron transport chain of mitochondrial respiration. Even when hemoglobin/hematocrit normalize with therapy, iron deficiency itself, marked by low ferritin, has been linked with symptomatic fatigue and dyspnea on exertion, along with increased morbidity and mortality in patients with heart failure. In the pre-operative setting, current guidelines recommend intravenous iron supplementation to correct IDA prior to elective surgery.[5] *Numerous studies support positive effect of intravenous iron on secondary post-operative endpoints, including transfusion requirements, acquired infections, acute kidney injury, and hospital length of stay.*

This case highlights the importance of avoiding premature closure of the differential for dyspnea to just cardiac or pulmonary causes.

His PEH repair was cancelled to facilitate management of his symptomatic IDA and minimize his perioperative risk. Additionally, if his dyspnea/fatigue resolved, he would no longer meet surgical indications for PEH repair based on symptomatic pulmonary compromise.

Summary Points:

- **Broad categories for dyspnea include cardiac, pulmonary, and hematologic etiologies. In the pre-operative setting, emphasis is often placed on investigating potential cardiopulmonary disease.**
- **While we had immediate access to a thorough past cardiopulmonary testing and prompt laboratory results, such a case highlights the importance of avoiding premature closure of the differential for dyspnea to just cardiac or pulmonary causes.**
- **Clarifying questions that delve into common symptoms, such as dyspnea, can help direct further work up. Ultimately, it was the patient's own sleep deprived musings plus laboratory trends that cemented the concern for iron deficiency.**

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THE TWO PIZZA TEAM IN PRIMARY CARE

Nancy LaVine, MD

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"Would an available resident please pick up the phone?" comes the overhead page in our residency clinic, reminiscent of the overhead announcements in a supermarket. I imagine a patient holding on the line, eager to ask a question, obtain medical advice, or seek reassurance. I imagine that patient might expect that the person who picks up that phone would quickly know them, understand his history, be able to speak with him from a place of knowledge. Despite the best of intentions, I imagine this does not happen when the "available resident" picks up the phone.

Like many large residency programs, our ambulatory care clinic has traditionally been busy and chaotic. Like many large residency clinics, we care for a complex patient care panel – under or uninsured, with social determinants (financial, language, job stress, food insecurity, low health literacy) that significantly impact health status, particularly when it comes to chronic illness. As residency programs grow, the clinics can become huge "factories" of primary care. In our largest clinic, we have approximately sixty residents, rotating through the space twelve at a time. We have a central hub for residents and faculty to work together in a sizeable group. We have multiple staff members around the hub in the practice who are there to assist in providing care to our patients, including health psychologists, social workers, pharmacists, front desk staff, medical assistants, and nurses. We have a complete team.

Yet, when we polled our resident physicians about the primary care "team", very few of them described working with this robust staff in any meaningful way.[1] We had all of the ingredients for a high functioning primary care team, but something wasn't working. Very few of our residents would describe their clinic experience as inspiring, or rewarding, despite the unique opportunity that primary care providers have to establish strong, continuous relationships with patients to improve health. Aligning with national trends,[2] very few of our residents would be so bold as to choose to become a primary care physician after spending three years in our clinic, despite an abundance of evidence that primary care providers improve the health of populations.[3]

Enter Amazon. We couldn't request two-day delivery of a high-functioning interprofessional team with our Prime account, but we could borrow a concept from Jeff Bezos, Amazon's founder and CEO: The Two Pizza Team:

> One of Bezos's more memorable behind-the-scenes moments came during an off-site retreat, says Risher. "People were saying that groups needed to communicate more. Jeff got up and said, 'No, communication is terrible!' " The pronouncement shocked his managers. But Bezos pursued his idea of a decentralized, disentangled company where small groups can innovate and test their visions independently of everyone else. He came up with the notion of the "two-pizza team": If you can't feed a team with two pizzas, it's too large. That limits a task force to five to seven people, depending on their appetites.[4]

"Communication is terrible"? This is the antithesis of primary care—but wait. The communication systems we had set up in our clinic were terrible. We had multiple team members coming to work every day with the goal of providing great care to patients. But the effort to communicate between the players was so much that it wasn't happening. Team members didn't even realize they were working together. Overhead pages were the norm, as were electronic messages sent from one side of the room to another. I see Bezos's point—needing to put effort into communication is terrible—it should be easy to know your team, understand your team, talk to your team. Team Based care, role identification, and engagement are important tenants of patient centered care, and we were missing out.

In an effort to address these concerns, we downsized. We took a funding opportunity from HRSA's Primary Care Training Enhancement Grant and created a new smaller clinic team within our existing practice. We left the large central hub in the office in favor of an admittedly cramped space. We shrunk the number of residents on the team to two, arranged the faculty schedules to align with the clinic weeks of those two residents, and, most importantly, moved a medical assistant and a traditional "front desk" person into the room with us. Core team of five. Believing in both interprofessional collaborative care and interprofessional education, we invited other team mem-

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BOOK REVIEW: *ATTENDING: MEDICINE, MINDFULNESS, AND HUMANITY*

Elisa M. Sottile, MD, FACP

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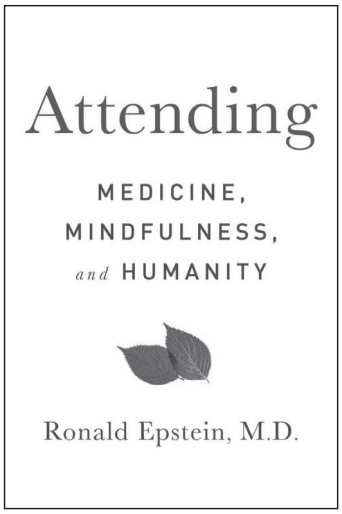

I recently read *Attending: Medicine, Mindfulness, and Humanity* by Dr. Ronald Epstein last fall while preparing for a lecture.[1] I had been tasked to speak to a large group of internists, specialists and trainees about restoring the joy in practice. I had just reread Epstein's 1999 *Mindful Practice*.[2] In this landmark article, he had proposed that mentoring and guidance is essential for teaching self-awareness and for instilling professionalism. The article prompted me to delve further into his works to find additional material to share with my audience. I almost did not finish my presentation as I became deeply engrossed with the book in my hands. *Attending* was simply inspiring—it compelled me to reflect on my behaviors and my words, and to see the immense potential they hold. I felt validated; quality care is more than applying knowledge- my behaviors and the words I use have the power to build connections and positively impact the quality of care that I provide!

Ronald Epstein is professor of family medicine, psychiatry & oncology at the University of Rochester Medical Center. He has more than 200 publication, most of which touch on communication and mindfulness in healthcare. In this text, he has compiled what might be his life's work in a format that was stimulating, reinvigorating my passion for patient care and helping to deepen my personal relationships. This is a must read for all those in medicine: students, residents, seasoned clinicians, administrators, and educators. In fact, *anyone* who interacts with others would benefit from reading this. Those who are interested in learning how to deepen their relationships with others, or who have interest in teaching others how to do so, should start by reading this volume.

Epstein effectively draws the reader in from the first page, recounting a poignant story that helped shape his future in medicine. The story also begins illustrating the deeper meaning behind his book's title: *attending* is much more than another name for a clinical faculty member Practicing self-awareness, attentiveness and presence will allow anyone to practice mindfulness, and be *attending*.

Like most internists, I consider myself a good communicator. Why then do I, like others, often feel dissatisfied in practice? In his text, Epstein shares anecdotes of compassionate communicators that have lost fulfillment with their practice. He notes that to become excellent communicators, we must attend to ourselves first. He reminds us, as did Osler, that "we miss more by not seeing than by not knowing." Practicing self-awareness allows us to avoid inattention for those we care for and helps us keep our eyes open and notice the unexpected. While attending we do not simply hear our patients' words, we listen and recognize the emotion that begot them.[3] Epstein attests and research has supported that mindful practitioners have improved patient outcomes; patients achieve better control of their migraines and blood pressure, and self-monitor their diabetes more closely. As described in the book, practicing presence, even briefly, can often be long enough to avert a potential crisis. Moreover, physicians like myself, can restore their satisfaction.

Through Epstein's effective storytelling, we learn that mindful clinicians still have patients who get angry, get ill, and even die; however, mindful physicians are less likely to be adversely affected by those moments of loss.[4] The many stories expertly woven within his text are far more than mere illustrations of his theories, they reflect our shared humanity. The characters are real, they lived, breathed, suffered and some even died. Once we are attentive, we can learn from the characters themselves, priming us for Epstein's elegant teaching. Whether lay person or medical professional, we are moved by these individuals; with the author's help, we recognize their pain, hope, fear, and longing. One individual, an intensivist, deliberately attempts to stimulate a patient who had been unresponsive for five days, while closely monitoring his EEG; he thus ascertains that stimuli were getting through. This was priceless information for the patients' family. The ICU physician had deliberately worked to connect with the patients' family and allow them to regain some connectivity with their loved one. Through similar writing, the author triggers our own empathy and cultivates our compassion.

Through carefully balanced chapters, the author develops the narratives, psychologic pedagogy, and Aristotelian wisdom to provide proof for his premise. We

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#PROUDTOBEGIM EVENT INCREASES MEDICAL STUDENT INTEREST AND KNOWLEDGE ABOUT GENERAL INTERNAL MEDICINE CAREERS

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Background

A shortage of 31,000 primary care physicians is predicted by 2025.[1] The number of medical students choosing internal medicine residencies is much lower than in previous decades.[2,3] Recent literature demonstrates only 20-25% of residents who chose internal medicine make a career in General Internal Medicine(GIM) compared to 54% in 1985.[2,3] A previous study of U.S. medical students found intellectual challenge, patient care, lifestyle, commitment to patients, role models, and personal/professional satisfaction were important factors for choosing internal medicine careers.[4] In 2015, the Society of General Internal Medicine (SGIM) launched the #ProudtobeGIM campaign to increase awareness about the field of GIM and encourage medical students and residents to pursue careers in GIM. Our institution hosted #ProudtobeGIM(PTBG) events for medical students in 2017 and 2018 with the objectives to increase medical student knowledge and interest in GIM; evaluate the effect of faculty "speed-dating" on medical student knowledge and interest in GIM; and assess medical student attitudes regarding career and lifestyle factors.

Fifty-one pre-clinical and clinical medical students in 2017 and 46 in 2018 at an academic tertiary care medical center attended a two-hour event which included dinner, three short PTBG videos (developed and distributed by SGIM), and faculty "speed-dating" that was comprised of inpatient and outpatient GIM faculty with diverse careers including research, education, leadership, and quality improvement. Faculty rotated six times to tables of five students for eight minutes to engage in discussions with students about their passion for GIM and address any student questions. Forty-three students in 2017 and 39 in 2018 completed pre- and post-event surveys including demographics, interest in GIM, and knowledge of GIM. In 2018, surveys assessed the importance of lifestyle, patient population, income, intellectual challenge, career opportunities, commitment to patients, work hours, and mentors when considering a GIM career using a five point likert scale (strongly agree to strongly disagree). Additional post survey questions queried the impact of the event on knowledge and interest in GIM. The change in proportion for the paired categorical data was analyzed using McNemar's test. SAS 9.4 was used to perform all statistical analysis. For analyses, the likert scale data was collapsed into categories of "strongly agree and agree" as "important" and "neutral, disagree, and strongly disagree" as "not important".

Results

Participant characteristics were statistically consistent across the 2 years. Eighty-four and one-half percent (84.5%) of students completed pre- and post-surveys. Pre- and post-survey comparison found a statistically significant increase in medical student knowledge ($p<0.0001$) and medical student interest ($p=0.0006$) in GIM post event. And 100% of students felt faculty "speed-dating" increased interest and knowledge in GIM. On the pre-survey, students reported that commitment to patients, career opportunities, intellectual challenge, mentors, lifestyle, patient population, and work hours were important factors when choosing a career in GIM. Students felt income was least important. All of these factors slightly increased after the event.

Discussion

The #ProudtobeGIM event held at our institution significantly increased medical student knowledge and interest in GIM. The increased interest in GIM was likely due to the "speed-dating" portion of the event in which faculty enthusiastically recalled the numerous reasons they chose

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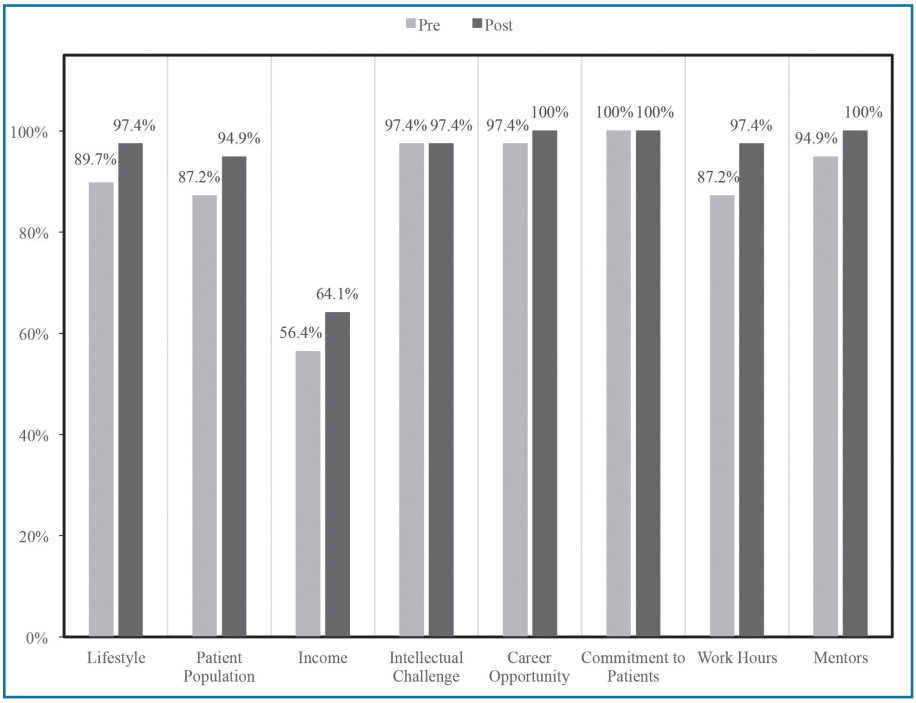

Important factors when choosing a career in general internal medicine.

a career in GIM as well as displaying the diversity of career options present in GIM. Previous studies revealed the importance of positive role modeling and attitudes among GIM faculty and residents for students choosing GIM.[4]

Similar to previous studies, medical students interested in GIM felt lifestyle, intellectual challenge, and commitment to patients were important factors to consider when choosing a career.[4] Earlier studies have shown conflicting results regarding the positive influence of the patient population for choosing GIM.[4] Our students strongly agreed that the patient population served by GIM was important to choosing a career. Income was not an important factor when choosing GIM which is consistent with previous studies.[5]

Limitations in this study include a single institution, small sample size, selection bias due to students self-selecting to attend the event, use of unvalidated survey items, and no measure of previous personal exposure to GIM.

This study suggests that an event incorporating multimedia presentations and "speed-dating" encounters with faculty can successfully educate students about careers in GIM and generate increased interest in GIM. Future studies will include follow-up on residency and career choices.

Ethical Considerations

This study was considered a Quality Improvement project instead of human subjects research by the Medical University of South Carolina and did not require review by the Institutional Review Board.

Acknowledgements

We would like to thank MUSC GIM faculty for their participation in the #ProudtobeGIM event.

Preliminary data was presented as an oral presentation at the Southern Society of General Internal Medicine in New Orleans, LA in 2018.

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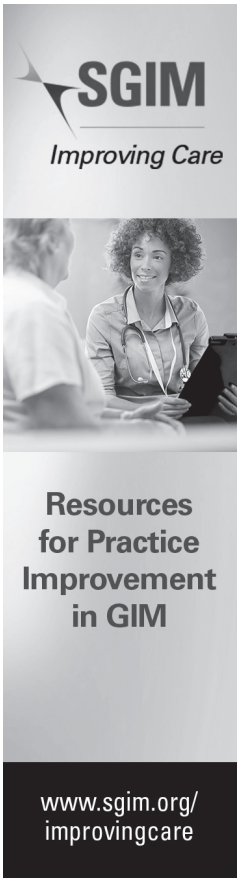

INCLUSIVITY IN ACADEMIC MEDICINE: PRACTICALITIES AT THE HEART OF MATTER

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Personal stories are in italics.

"Which is to say that like a good theoretical objectified body, my identity was created not by me but by the various desires and beliefs of those around me."

—Daniel Borzutzky

She was taken out of school after the 5th grade. The woman of an all-male household at age 15. Writing letters to her husband attending college in the city. Telling him everything was well back home, even when it wasn't. She moved to the city to support him through his career in academics. She saved money for the future of their household while supporting those back in the village. She raised her son and daughters to excel in school. One daughter dreamed of becoming an engineer, she encouraged her husband to drive her to the boys' school for mathematics class because the girls' school didn't teach it. She cared for grandchildren when her daughter returned to work immediately after giving birth. Maternity in the sciences was not seen or heard. She taught her 8 year old granddaughter to cook, clean, do the morning laundry before studying and heading to school. Woman needed to be able to excel at all of it, home, school, work, all of it.

Women have come a long way since my grandmother left her village to provide a meaningful life to her future generations. In academic medicine today, "she" still has room to grow.

Today, women join medical school making up about 50% of their cohort. On matriculating into residency, they make up 46% of residents. Once graduated from residency, female physicians make up 36% of the workforce.[1] In Internal Medicine, female physicians earn up to $50K less than their male counterparts.[2] And, as for professional progress, 19% of full professors and 12% of department chairs in Internal Medicine physicians are female.

Where Have All The Women Gone?

Peeling through barriers, you might be surprised (or not) to learn that patients rate male physicians higher than female physicians for the same level of patient-centered skills.[1] Faculty raters, regardless of their gender, rate male residents higher when demonstrating the same level of competence.[3] In residency, women are more likely to experience burnout and emotional exhaustion.[4] As their careers progress, female physicians experience poorer job satisfaction and tend to experience role conflict and are more prone to career change to support children.[5] Female physician-scientists don't get the time and mentorship they deserve.[6]

"The data are compelling, but if we listen to our stories, the human stories that make up the Academy, we know that the data alone do not reveal everything necessary to advance a better community. Rather than fear of talking and mentoring, we need to be more comfortable with the narratives of our lives and diversity over ONE model for a successful academic career."

She was a woman who responded to the needs of her family and knowingly tipped the scale toward family over career. She was a first generation working mother in her family. Guilt was inside, outside, and everywhere. There was no model, just a willingness to experiment with what seemed "right." It is difficult to explain the disconnect between calendar years and academic advancement. Who am I? Now, when family needs subsided, new interests, relationships, opportunities are like candy. There is no model for growing a career later, just a willingness to experiment with what seems "right" and the people who seem "right beside" me.

The data are compelling, but if we listen to our stories, the human stories that make up the Academy, we know that the data alone do not reveal *everything* necessary to advance a better community. Rather than fear of talking and mentoring, we need to be more comfortable with the narratives of our lives and diversity over ONE model for a successful academic career.

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What questions are we not asking? What is mixed in with the bricks and mortar in the house of medicine that until recently was home to only white men?

Returning to school to pursue a graduate degree after age 50, he found himself in a stats class with graduate students younger than his children. Faculty (younger than he is) are more like colleagues, first-name basis, laughing at their jokes, negotiating assignments to meet his needs. With some trepidation, he arrives for a pencil and paper midterm for the first time in more than 30 years. Half way through he rises, takes is papers to the young TA and explains, "I have to go to the bathroom." As he gets to the door the scene from Hidden Figures forces its way into his consciousness. It never occurred to him that he would not be granted permission to go. To take the class, be accepted into the program.... It never even occurred to him.

They say that behind every successful man is a woman. What's behind a successful woman? When you next see your female colleague, consider the space between you and her that carries the work of generations that has led her to where she is now—in your sight. Commit to having her back.

Assuring a Positive Climate in Academic Medicine

#MeToo, #BeEthical, and other movements have elevated the conversation around professional practice in academic medicine. At the same time, many faculty and leaders are skittish about what they can do and say to avoid missteps. The following are some general guides to serve as proactive development opportunities and dialogue starters in our everyday work. This advice is not specific to women exclusively and can help everyone work better together.

1. BALANCE Make sure there is balance in voices at the table. Monitor your own behavior and power signals. Do you interrupt women more than men? Do you volley conversation with the same people at every committee meeting? Are decisions made in settings other than work?

2. CREDIT Make sure credit is given where credit is due. Don't lose track of original ideas based on whoever's voice is last or latest.

3. NUMBERS Make sure there is more than one woman or other underrepresented minority on both sides of the hiring equation. In both real world and controlled environments, research has demonstrated the likelihood of hiring a woman increased nearly 80% simply if two or more women were in the finalist pool.[7]

4. DIVERSITY Move diversity from an intrinsic value to a transparent practice. Train your leader thinking to continually assess, *"Where is the diversity in this?" "Is there someone's perspective we need to hear on this topic?"*

5. LISTEN We can never truly understand what it is like to walk in someone else's shoes. Check the accuracy of your own perceptions and ask women or other minorities about their experiences or stories. A better bridge to shared understanding can be built through personal stories.

6. EDUCATE Continually educate yourself using national and organization data informing promotion rates for women and other minorities. Examine the progress made every six month or more frequent intervals. Agility in responding to data trends leads to greater organizational stability.

7. ASK Routinely ask about professional and research interests. Use opportunities for hallway mentoring, coaching and advising to keep careers in forward motion.

8. ADVOCATE Hone skills in advocacy and practice initiating dialogues as an ally for women or an array of other marginalized groups. Model and normalize advocating for others. Be especially alert at the patient's bedside, in promotion decisions, and committee work.

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attendings frequently rotating on and off service. But we should *not* let this stop us from trying. Author Amanda Simone remembers all too well the struggles related to being a female resident. Approaching female attendings for support, she was often told that "you get used to it," and was left wanting more. She found herself seeking out support and a mentor who could provide answers to the questions faced as a female physician. After talking to other female residents, Dr. Simone realized that she was not alone, and that they too felt the desire for more support on gender-based issues in the workplace. This prompted the authors to develop a Women in Medicine Professional Development and Mentoring Program for female medicine residents within our institution.

In our program, we meet monthly to build critical career skills—such as negotiation, public speaking, CV writing, and work-life integration—while also providing mentoring and support to each other. We determine our workshop dates and times by poll, allowing our female residents to pick a time that works best for them. Our meetings run for 90 minutes after work, with half of the time dedicated to an interactive, learner-centered workshop on one of the predetermined topics listed above, and the second half of the time dedicated to mentoring. To foster a sense of community and a safe space to share, we serve as facilitators and mentors at each meeting. This was decided after participants from a focus group held prior to launch of our program expressed the desire for stability and comfort with a consistent set of mentors.

As a new and developing program designed to provide mentoring, training and support for female resident physicians, we hope our program may serve as a place to start. This is what we ask you all to consider: Recognize the needs of your female residents and find a way to help support them. Intervention and support at this formative stage, we believe, will help our trainees go on to be more empowered and successful, and ultimately level the playing field with their male counterparts.

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learn that once we train ourselves to be self-aware that we can proceed to be truly present for our patients, colleagues, family members, and even strangers met on the street.

Being mindful requires thoughtfulness and effort. Epstein acknowledges that practice is essential. We learn that stress itself does not necessarily connote burnout. He adeptly points out that those in professions that experience ongoing stress or crises (like physicians) fare better when they are prepared to be unprepared. This is resilience. In the author's words, "resilience does not mean hardening of the heart, it is about adopting lightness, a sense of humor and flexibility". Others may understand resilience to be like the reed in the typhoon, it sways and bends, nearly flat to the earth, but after the strong winds pass, it recovers, slowly straightening again. Clinicians that are rigid, like an oak in that same storm, are more apt to break from the stressors of productivity, documentation, or adverse patient outcomes.

Epstein shows us the path that leads away from despair and dissatisfaction; each of us has the ability to right our journey toward a more positive end. He makes it clear that our work is a large part of our life and our search for work-life balance negates the tremendous importance and honor of what we do. The author describes how we can find meaning in our professional lives by connecting with those around us. As physicians, we can train ourselves to be more engaged with patients and colleagues; as educators, we can train ourselves to deepen our engagement with our learners. There is no need for balance if there is meaning in *all* aspects of our lives. In the book's last chapter, Epstein even provides the foundation for health systems to become mindful and instills hope for practitioners and the new physicians who will one day take our place and be our healers.[5]

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BOOK REVIEW (continued from page 12)

The author richly references each chapter and adds extensive notes to his content, enticing readers to deepen their experience by reading more about select topics outside of the main text, easily found in his notes section. This attention to detail makes this addition an essential resource for anyone interested in the practice of mindfulness. Although the text is not intended to teach one how to meditate, a brief appendix provides some tips for beginners. While impossible to adequately summarize Epstein's instructions in Attending, I suggest considering the "*ABCs of Mindful Practice": A-Assess your level of presence; B-Be open to the unexpected; C-remain Curious*.

In this age of digital conversations, higher rates of physician dissatisfaction and burnout, *Attending: Medicine, Mindfulness, and Humanity* by Ronald Epstein provides an unwavering argument that by making attending a way of life we can become mindful and heal ourselves. While one can quickly read this book in a weekend, I would urge you to read it in the manner Dr. Epstein would want you to—slowly and attentively.

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PERSPECTIVE: PART II (continued from page 6)

bers in that we knew would enhance the learning of our residents and the care of our patients. When they are with us, we cram into the room. Three years later, we are a pretty close team, both literally (have I mentioned the cramped room?) and figuratively.

We are now much nearer to the Two Pizza Team (maybe three?) that Jeff Bezos described. We care for the same complex patients we did in the traditional clinic model, but we are able to innovate to provide patient centered care. Our residents are now very much aware of the benefits to patients of working alongside pharmacists and behavioral health providers. Provider and patient continuity has improved and far outpaced that of the traditional side of the clinic. Our preventive care measures are higher. Our patient no show rate is lower. We know our patients better.

Getting back to that patient on the phone, waiting for "an available resident" to pick up and speak to them, as a patient, I imagine it would be reassuring to know that your care team sits down, discusses the complexities of your health, and innovates your care (maybe over a pizza or two). Seems like a better option than "any available resident."

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FROM THE EDITOR (continued from page 2)

then use the rest of the organization's services where the reimbursement is more favorable.

A common way to measure clinical productivity is by assessing work Relative Value Units (wRVUs). SGIM members are already quite familiar with the concept but, briefly, wRVUs are generated by an individual clinician based on the number of patients seen, their complexity, and any associated procedures, labs, etc., performed. Benchmarks for general internists over a year can be gotten from the Medical Group Managers Association (www.mgma.com). Healthcare organizations spend a lot of effort training providers to document all aspects of the clinical encounter so that they can appro-

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priately bill insurance companies and the healthcare organization is compensated appropriately.

Measuring academic productivity is relatively new and proves to be more challenging. Several organizations have used academic or educational RVUs (aRVUs or eRVUs) as a means of quantifying educational and other scholarly work. These are designed to capture the teaching and other scholarly activities that are frequently overlooked and uncounted; especially, if there is no direct funding for that scholarly role, such as funding for percent effort devoted to being a residency program director or effort on an NIH grant. Getting back to my Division faculty, aRVUs represent how I may measure the breadth of activities that frequently interfere with the generation of wRVUs.

We are currently at the stage where we are developing these aRVU metrics so that we can count these activities and compare them to wRVUs. The challenge remains with how to reimburse faculty physicians for aRVUs or how they should offset or replace clinical RVUs. Clinical RVUs generate revenue although academic RVUs generally do not. A faculty member's aRVUs, however, still generate lots of value. That value is what makes an organization attractive to trainees and students as well as potential faculty recruits. The joy in generating that value is why we do what we do.

How do you measure, measure a year? Five thousand one hundred and fifteen wRVUs?! SGIM

incarceration and recidivism, jobs/wages, safety, education, and other community-based, and environmental conditions. Intervening in these social determinants can improve health outcomes and lower cost.[2]

The notion that we should understand the context of our patient's health, not only their disease, is foundational for medicine *and* general internal medicine. It is even expected that we document a social history in notes recording our encounters with patients. Even without this documentation requirement, we all recognize the role of social needs in contributing to illness and disability as well as the impact of social needs on their ability to deliver effective health care whether because of experiencing social needs challenges in their own patients or having an opportunity to learn about the social determinants of health as part of their undergraduate or graduate medical educational experience.

Each of us can readily share a story of someone whose medical issues were not the reason they recurrently visited the emergency room, had prolonged hospital stays, or struggled to adhere to their care plans. I recall a Veteran with a diagnostically challenging series of episodic pulmonary infiltrates. It was not until I took a thorough social history that we were able to diagnose him with Farmer's Lung, from side work he picked up on weekends baling hay to supplement his income. Or the elderly man who visited our emergency room nearly weekly with chest pain, always ruled out for myocardial infarction and anything else we could include in the work-up. A conversation at the bedside revealed he was lonely, having lost his spouse and being estranged from his kids. Or the woman with refractory hypertension who became normotensive off medication when she was able to safely leave a physically and emotionally abusive relationship.

Because of experiences like these, I have no doubt that general internists have an important role in understanding and supporting interventions to address the social needs of their patients. We are likely to have longitudinal or intense relationships with patients that support the development of trust and encourage our patients to share more insights about their social risks and social needs facilitating the implementation of supportive interventions as a component of care delivery. This is true no matter the predominant setting of

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Relationship of the Social Determinants of Health to Outcomes

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical Bills	Playgrounds	Higher education			
Support	Walkability				
Health Outcomes Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Expectations					
READMISSION ↑		**NON-ADHERENCE ↑**		**COST ↑**	
OUTCOMES ↓		**SATISFACTION ↓**		**RISK ↑**	

Adapted from Kaiser Family Foundation

our care—outpatient, inpatient, or in the community.

There is a growing recognition of the need to include formal education about the social determinants of health as part of physician training and some medical schools are calling for a dramatic rethinking of the social mission of medical schools more broadly, including the responsibility to focus on educational, research, clinical and community service efforts on the social determinants of health, particularly for the communities where they are located. A systematic review of the literature found rising interest in including social determinants of health as part of medical education.[3] Medical education leaders and experts are also supportive of increasing the exposure to the social determinants of health across the medical education curriculum but there is ongoing need to develop a shared curriculum, teaching methods and evaluation of impact.[4] The work in the area is still new however, especially for graduate medical education. When residency programs do include content on social determinants of health, it is largely didactic and provided in short or one-time sessions.[5] That said, there is evidence that even relatively simple educational interventions can enhance understanding of social needs and appropriate resources such as access to nutrition programs for those who are food insecure.

My home institution—the University of Texas at Austin Dell Medical School (Dell Med)—is a leader in developing curricula and experiences that help our medical students and residents understand the influence of the social determinants on health outcomes and build skills to help address them. Dell Med is a new school whose first class of medical students are only in their third year. They are experiencing an innovative curriculum preparing them for 21st-century health care and a core component is to ensure that they understand and feel more capable of addressing SDOH.

At Dell Med, the Department of Population Health, founded and led by former SGIM President Bill Tierney, has established a model undergraduate medical education experience for our students to introduce them to concepts around SDOH. The department is part of a newly emerging group that has established population health within U.S. medical schools to advance a broader and more holistic view of health that is purposefully inclusive of both medical and social determinants.[6]

The Dell Med's Department of Population Health's Primary Care, Family & Community Medicine Clerkship is a two-year longitudinal course that runs across the student's first two years and involves a continuity primary care clinic clerkship that they attend a half day a week. Our Dell Med curriculum is structured so that the students complete their clinical rotations by the end of second year and they undertake research and/or are pursuing a secondary degree, such as a certificate in value based care, in the third year. As such, this longitudinal clinical clerkship and ambulatory experience is their only clinical experience during their third year. The first year of the curriculum is constructed so that every fifth week, rather than their weekly half day of clinic, the students come together with faculty and have shared didactic experience on topics relevant to primary care. They split into small groups and walk through interactive clinical cases that are centered around a theme that focuses on common presentations in primary care. All the clinical cases have an SDOH challenge woven into the narrative to demonstrate how SDOH is integral to their care of *every* patient.

If the work at Dell Med and the findings in the literature sparks your interest, I hope you will access some of the references and resources to learn more. If you are already engaged in undergraduate, graduate, or other health professional education in this area, I hope that you will submit your work for publication in JGIM, the SGIM *Forum*, or for the 2020 Annual Meeting. The data is clear, we will only be able to meaningful improve the health of our patients and communities if we understand and work to address all the determinants of health, including the social determinants. This matters not only for our own care, but for the next generation of physicians and health professionals we have the responsibility to train.

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BREADTH

HOPE AND WORRY

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"THIS IS NOT A DRILL. Remember: Evacuate, Evade, Engage." These words concluded an emergency alert system text message I received on Saturday, October 29, 2018, at 10:37 AM.

Awful words to read, warning me of an active shooter in the neighborhood near our downtown hospitals. As the message flashed across my cell phone, I was rounding in an intensive care unit (ICU) at a small hospital in an outer suburb. I was in no immediate danger, but I did not feel safe.

Over the coming hours I learned the horrible details. A man had burst into the Tree of Life Synagogue spewing anti-Semitic, hate-filled words. He executed 11 people in their house of worship on the Sabbath, and he injured the officers seeking to stop his rampage. The day before, my wife picked up our children from their daycare center—attached to a synagogue—just over half a mile away. She passed the Tree of Life on her way home, and we drive by it nearly every day. Was this really happening?

I confirmed that my wife and two small children were safe at home, in a different Pittsburgh suburb far from the morning's tragic events. I tried to get back to the business at hand, supervising the care of critically ill patients. The day had started at 7:00 AM with a patient in cardiac arrest on one of the medical floors; he did not survive. As an intensivist, I confront death every day. For some patients, I keep death at bay with physiologic support while their failing organs recover; for others, I focus on alleviating suffering as death inevitably encroaches. But my work in the hospital does not prepare me for this death, which comes without warning and defies logical explanation.

Every day as a parent, I experience myself and witness in the two tiny people living with me a wide range of emotions. When I got home that Saturday, my wife and I embraced and cried silently while our oldest son watched cartoons. He seemed blissfully oblivious to the horror that had occurred so close to his preschool. Later, he asked in his three-year-old voice, "Some people got hurt, Daddy. Did you see them get hurt?" I could barely answer.

I remember hearing that having children can feel like there is a piece of your soul wandering the world, terrifyingly defenseless against threats known and unknown. In the wake of the shooting I thought often of my boys—parts of my soul—running on the playground and reading in the classrooms of their Squirrel Hill daycare, unaware of what had happened just blocks away or what dangers might lurk outside.

After another week on service, I was back on daycare drop-off duty, but nothing about it felt routine or normal. As we walked into the building, we passed a friendly security officer stationed outside. On his face was a smile and on his hip a handgun; was I supposed to feel comforted that my children might be protected from an as-yet-unknown menace who meant them harm, or terrified that it now seemed necessary to have armed guards at a preschool?

I spend countless hours in the ICU talking with my patients and their families about expectations and uncertainty. I always hope that modern medicine can help my patients get better. I often worry that despite our best efforts they might not survive.

Now I find myself confronting hope and worry in my own world. I hope that the messages of love and unity in our city will drive out hate. I hope that public opinion and legislative action can keep weapons of mass destruction out of the hands of those that would do us harm. I hope that I never get one of those horrible phone calls.

But now, more than ever, I am keenly aware that my hope is uncertain. And so also, I worry.

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The ISSN for SGIM *Forum* is: Print-ISSN 1940-2899 and eISSN 1940-2902.