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ACADEMIC INTERNAL MEDICINE INSIGHT

By the Numbers

50%

Residents who met criteria for burnout

Page 5

28%

Medical learners who are identified as underperforming

Page 7

91%

Programs that utilize hospitalists for supervision of medical students and residents

Page 17

Taking the Lead

My mother passed away recently. While I am sad at her loss, it has triggered memories and reflections that led to the focus of this quarter's update.

As I traverse the path of losing a parent, learn how to relinquish someone cherished, and try not to forget to embrace and imbed the legacies she leaves behind, I see the impact of her leadership on the lives of others, many of whom I have never met. This part of the journey makes me realize a unique opportunity to reconsider how I lead and the impact my leadership has on the people and things for which I am responsible. More important, the impact I may have on the future of those who work with me are influenced by my actions.

The Alliance focuses on leaders and leadership development in many ways. It provides educational programs, collaboratives, small grant programs, early career development awards, and national volunteer opportunities, to name a few. The cascading effects of these activities reach far more deeply than one might imagine. During my mom's lengthy illness, I was able to observe how the local community teaching hospital faculty and staff incorporated and applied the competencies AAIM so fully supports. I watched as residents conducted tough conversations with my family about outcomes and prognosis. I listened as attending physicians discussed approaches to problem solving for some of my mom's complex health issues with the chief resident and a pulmonary fellow, advising learners on direction and choices, all the while taking the lead on how those messages were conveyed to my family. I was proud to work at the Alliance, because I could see how our own members put leadership on point and used those skills to help a family navigate through very difficult seas.

As we search for answers to the myriad challenges facing our institutions, providers, learners, and patients, perhaps we should take a moment to also consider the positive impact great leadership has on the ones we serve. Not so much the big stuff—awards, scientific discoveries, graduating classes, residency matches—but the smaller, less tangible ways leaders touch the lives of people we encounter without even realizing it. The student who needs guidance about career choices, the new faculty member who is trying to navigate the system, the family struggling to make end of life decisions for a loved one, or the underrepresented minority resident who faces challenges from a patient who does not look like she does. It is in these seemingly small, quiet moments that you have the greatest impact as a leader.

Merriam-Webster offers several definitions of the transitive verb lead (**Figure 1**). Many epitomize the ways my mom led her family and her staff when she was a hospital administrator. They also hold true for the physicians, learners, clinical staff, and administrators I encountered during the last few months of her life as well as many AAIM members.

FIGURE 1. Lead

1. "To guide on a way especially by going in advance"
2. "To direct on a course or in a direction"
3. "To serve as a channel for"

The Alliance, through its diverse founding member groups, has led the way in advancing issues of importance to the academic medicine community. Examples include taking a strong position against the recent Executive Order on Immigration, navigating contentious waters to help internal medicine subspecialty societies think about fellowship start dates (including the personal impact changing that date would have on fellows and their families as well as the institutions releasing and receiving them), or responding to the Accreditation Council for Graduate Medical Education's call to convene leaders to open a fresh dialogue about the internist of 2035.

In fiscal years 2016 and 2017, the AAIM Board of Directors guided the organization through a thorough business lines analysis to assess the impact of our work and determine where we need to change course. It charged staff and volunteer program planning committees to do tough things such as revamp our two large conferences in preparation for future opportunities to better serve members, improve fiscal performance, and understand the impact of AAIM's products and services to improve future strategic planning and resource allocations. Executive and senior staff engaged leaders from the internal medicine community to show we are indeed "even better together," and therefore should make room at the table for new colleagues and stakeholders.

As I sifted through my mother's things, I discovered small but significant mementos that represented how she served as a conduit for others. It was through her that others were afforded mentoring, coaching, and personal and professional support. The Alliance does much the same thing for you. It often leads by serving as a conduit or channel—for example, convening stakeholders in collaboration with the American College of Physicians to address concerns about the future of the American Board of Internal Medicine continuing maintenance of certification program, and continuing to resource and serve as the lead organization for the Internal Medicine Education Advisory Board. I am proud that our 2008 commitment to serve as a "voice for academic internal medicine" has begun to bear fruit.

As we search for answers to the myriad challenges facing our institutions, providers, learners, and patients, perhaps we should take a moment to also consider the positive impact great leadership has on the ones we serve.

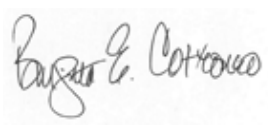
So, allow yourself to lead:

1. Don't underestimate the power you wield as formal and informal leaders. Even those who work with you peripherally are impacted and will benefit.
2. Remember that most of the time you won't know you've had impact—positive or negative—until someone taps you on the shoulder to say thanks (or not so much!), or as in my mother's case, someone else is reading a note left behind from a grateful mentee or colleague.
3. You don't have to do it alone. Leadership functions can be spread across multiple individuals and teams, and even to individuals outside the team. What matters most is that we recognize the importance of taking the lead in the first place.
4. Leadership can be assumed by individuals not in formal leadership roles.
5. Taking the lead means moving forward, which leads to change.

My mom is gone but many of those who were impacted by her leadership are still here, ready and prepared to take the lead for their part of the journey. More important, I wager many of you have similar experiences. You are probably sitting in the seat you occupy today because someone took the lead and helped move (or pull) you forward.

As we wind down another successful academic year, look ahead to challenges, and get energized by opportunity, I hope you will remember to take the lead—from wherever you are—and leave a lasting legacy as a member of this wonderful community we call academic medicine.

Sincerely,



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Academic Internal Medicine Insight
Owned and published by the Alliance for Academic Internal Medicine (AAIM)

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AAIM is a consortium of five academically focused specialty organizations representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. AAIM consists of the Association of Professors of Medicine (APM), the Association of Program Directors in Internal Medicine (APDIM), the Association of Specialty Professors (ASP), the Clerkship Directors in Internal Medicine (CDIM), and the Administrators of Internal Medicine (AIM). Through these organizations, AAIM represents department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine.

Time to Walk the Walk and Not Just Talk the Talk

According to Merriam-Webster, wellness is defined as "the quality or state of being in good health, especially as an actively sought goal." The National Wellness Institute further expands this definition to encompass six dimensions: emotional, occupational, physical, social, intellectual, and spiritual. Conceptually, wellness is a positive, conscious, and self-directed construct that brings together personal and cultural beliefs, the environment, lifestyle, and emotional and spiritual well-being. It is not, simply, the absence of crisis or conflict. While physicians often promote and support wellness in others, for them to neglect developing wellness in themselves is not uncommon.

Why Do We Become Physicians? To Promote Wellness in Others

Many influences affect an individual's choice to enter the field of medicine. For the majority, the practice of medicine allows an unparalleled opportunity to work with and care for others (1). Some are drawn to the profession through the possibility of meaningfully influencing the health of populations. Love for the sciences, discovery, and continuous intellectual stimulation attract others. A relatively small percentage choose careers in medicine for job stability, prestige, or financial security (2). In sum, the majority who wish to become physicians deliberately choose a profession that enables them to promote, cultivate, and maintain wellness within their patients, families, and communities whether through direct patient care, policy, discovery, administration, education, or some combination of these avenues.

Early Education

Students must demonstrate consistent, outstanding intellectual and academic aptitudes early in their studies simply for the opportunity to pursue a career in medicine. According to the Association of American Medical Colleges, approximately 53,000 students applied to medical schools within the United States during the 2016-2017 academic cycle. Roughly 21,000 of these students will matriculate to medical school after having amassed mean grade point averages of 3.70 (on a 4.0 scale), scoring at or above the 80th percentile on the Medical College Admissions Test, and building versatile portfolios that highlight exceptional accomplishments outside of the classroom (for example, research, or community service). Discipline, motivation, and self-sacrifice are key characteristics that enable high levels of achievement. While the driving forces that initially motivated students to pursue careers in medicine may remain, something unexpected happens during medical school—students begin to lose their idealism (3). While

Many influences affect an individual's choice to enter the field of medicine. For the majority, the practice of medicine allows an unparalleled opportunity to work with and care for others

the factors influencing student behavior and attitudes are multifaceted and complex, this shift is negatively impacting future generations of physicians. The decline in idealism and optimism manifests in different ways. While medical students enter graduate school with better "psychological health," nearly one-third of students experience clinical depression (4,5), with between 6% and 12% reporting suicidal ideation (6). Separate from the significant impact on the individual student, the loss of individual psychological health may adversely affect society at large. During the past two decades, there has been a general decline in students' interest in serving disadvantaged or underserved patient populations and a decreased sense of accountability to improve the health of society (7). It is unlikely that loss of individual psychological health is the sole explanation for these observations. However, factors such as emotional exhaustion, depersonalization, loss of meaning/purpose in work, reduced resiliency, limited supportive mechanisms, or financial stress impact a sense of well-being, thereby influencing how one envisions and interacts with the world.

Early Training

Not surprisingly, the deficits that manifest in students carry through to the next phase of their careers—residency training. As students make the transition to become resident physicians, their lives transform. From the first day of internship, they are immediately immersed in high-intensity environments with significant responsibilities. As the principal caregivers for patients and families, residents are entrusted to make important clinical decisions that may positively or adversely affect their patients' health. Achieving mastery of a discipline requires rigorous effort and application; work hours are demanding, and residents may find themselves further challenged by relatively structured schedules over which they have little control, contributing to sleep deprivation and creating competing demands from family and friends (8). In 2003, the Accreditation Council for Graduate Medical Education mandated duty hours restrictions

to improve patient safety. Although the requirements were a step in the right direction, they created unforeseen challenges. Traditional cultural norms and mores within the field of medicine persisted. Many times, the complexity and volume of patients remained the same (or increased), but the time allotted for completion of these responsibilities was compressed. The explicit and implicit goals of residency, including assumption of ultimate responsibility for their patients and families, demonstration of self-directed learning, navigation of career planning, and attention to personal or family needs may not be realistic when coupled with the constraints inherent during training. As a result, an educational environment is created in which many residents are simply trying to survive, rather than thrive. In a comprehensive survey of more than 15,000 internal medicine residents, West et al found that more than 50% met criteria for burnout (9). Rates of depressive symptoms and suicide among medical students are substantially higher compared with age-matched peers in the US population (10). Importantly, no correlation has been found between resident well-being and academic success (11). In fact, many highly functioning residents achieve or exceed expected levels of performance—at times to the detriment of their personal well-being.

Physicians in Practice

As we follow the path of an idealistic medical student through rigorous residency training, it should come as no surprise that faculty physicians face similar challenges as they enter independent practice. Professional and personal responsibilities, time pressure, and competing demands only increase. Early-career physicians have the lowest satisfaction with overall career choice, the highest frequency of work-home conflicts, and the highest rates of depersonalization compared with physicians in their mid or late careers (12). Like medical students and residents, faculty have higher levels of depressive symptoms, burnout, and suicide rates compared with the general population. The resultant career dissatisfaction has implications for society. Physicians who are not satisfied with their careers may be more likely to reduce clinical hours, retire early, or shift away from direct patient care responsibilities, which may compound the challenges of an already distressed health care system. Individuals who continue to practice while "burned out" have higher self-reporting of errors and higher mortality rates in hospitalized patients (13).

Responsibility of the Organization

Approaches to address the mounting concerns of physician burnout often center on individuals or small groups. Development of adaptive coping strategies, engaging in mindfulness-based stress reduction, meditation, or participation in leisure activities may allow physicians to develop resiliency, which may protect against burnout (14). However, organizations that rely solely on the notion that burnout and professional fulfilment are the responsibility of the individual physician are mistaken. For example, system-level changes that address workload and shift length may be even more effective than individual-level interventions (15). In addition, substantial evidence exists that physician well-being is equally important to the health and long-term viability of the organization (15,16). Therefore, it is often in the best interest of the organization to partner with physicians to create an environment that supports the personal and professional needs of its workforce, while achieving the organization's mission. A partnership between physicians and organizations/institutions is necessary to create and support a culture of wellness.

Factors such as emotional exhaustion, depersonalization, loss of meaning/purpose in work, reduced resiliency, limited supportive mechanisms, or financial stress impact a sense of well-being, thereby influencing how one envisions and interacts with the world.

Responsibility to Ourselves

We have a tremendous opportunity to positively impact physicians currently in practice, as well as those who will follow. In 2016, AAIM operationalized a Wellness Committee charged to identify, build, collect, and promulgate resources and tools that advance supporting wellness of faculty, staff, and learners. In addition, AAIM supported the expansion of the Collaborative for Healing and Renewal in Medicine (CHARM)—consisting of medical educators, leaders at medical schools and teaching hospitals, and experts in burnout research and interventions—designed to promote learner wellness. The collaboration between the AAIM Wellness Committee and CHARM will allow for dialogue to gather best practices, investigation into the impact of learner burnout across the continuum, development of tools for educators, and inclusion of initiatives that foster well-being among physicians.

As an initial step, the AAIM Wellness Committee hosted several wellness-based activities at Academic Internal Medicine Week 2017. A dedicated space served as a wellness room throughout the conference. This room was a protected but open space where faculty could relax or participate in wellness-based activities including guided meditation, writing prompts for self-reflection, personal coaching, or wellness self-assessment. Embedding wellness into the fabric

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Embedding wellness into the fabric of the AAIM meeting was a tangible step to open dialogue and to embrace the value wellness may have for the lives of individual physicians, as well as the lives of patients they touch daily.

of the AAIM meeting was a tangible step to open dialogue and to embrace the value wellness may have for the lives of individual physicians, as well as the lives of patients they touch daily. Now is our time to not simply "talk the talk," but to "walk the walk." We can take and enjoy this walk together.

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Labeled as Struggling: Residents Perception of the Stigma Associated with Coaching as a Remediation Tool

Introduction

An estimated 7% to 28% of medical learners are identified as underperforming at some point during the course of training (1). Though institutions have developed remediation programs to address this issue, the optimal approach to remediating underperforming learners remains uncertain (2). Recent studies have demonstrated the value of coaching as a form of remediation due to its goal-directed nature and opportunity for immediate feedback (3-5). However, a paucity of literature exists about learner perception of such interventions and its impact on the overall success of coaching.

Although it is theorized that learners may be reluctant to be identified for remediation due to embarrassment or stigma (2,6), the true prevalence of stigma among remediated learners remains unknown. Additionally, little is known about the impact of this perception on the effectiveness of coaching. In fact, some argue that maintaining a stigma-free environment may ultimately delay a student's awareness of his or her deficits, potentially minimizing the effectiveness of remediation (7).

The purpose of this study is to evaluate the overall perception of a structured coaching program among underperforming learners and the presence of stigma related to participation within this program.

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Methods

Struggling medical students and internal medicine residents were identified by their respective grades or by the Clinical Competency Committee (CCC) at the Hospital of the University of Pennsylvania (UoP) and were then referred to the Coaching Committee (CC). Members of the CC reviewed available evaluation data and interviewed each learner to develop a comprehensive remediation program designed to address his or her specific deficits. Leadership from the CCC and CC and other remediation experts were interviewed to develop a survey to assess the learners' overall coaching experience, understanding and agreement with their deficits, experience with the actual coaching, self-perceived outcomes, and perception of stigma (**Figure 1**). All learners who participated in coaching were invited to complete the anonymous, electronic survey at the end of the academic year (June 2016). The Institutional Review Board at the UoP determined the data analysis to be exempt.

We elicited qualitative data on individual perceptions of the coaching process and the presence of stigma via "free text" responses. One author (I.B.) performed thematic analysis.

Results

A total of 18 learners (four medical students and 14 residents) had completed the UoP coaching program at the time of survey initiation. We received 10 unique responses (55%) from eight residents and two medical students. Of the 10 respondents who started the survey, eight answered all of the core survey questions.

Most learners rated the overall coaching experience as positive (n = 7). These learners described coaching with terms such as "great experience," "excellent," and "extremely helpful." Learners who described the overall experience as negative (n = 3) used words such as "very uncomfortable," "condescending," and "not helpful."

The majority of learners (n = 7) felt they needed formal remediation prior to initiating the program, yet only 20% of learners sought assistance from a supervisor. Reasons for not self-reporting included the belief that the change in performance was an accident or an acute change, unawareness of any deficit, not thinking the deficit was an issue, or assuming one would improve on one's own. Learners who perceived they were underperforming noted a feeling of "falling behind" in clinical rotation during internship, clinical rotation in medical school, or a busy rotation.

Overall, learners felt they improved by the end of the coaching intervention (n = 7), specifically reporting improvement in overall confidence (n = 3), ability to adequately handle their patient census, efficiency with

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FIGURE 1. Relevant Survey Questions and Results

Question	Answer	*n* (%)	Examples of Free-Text Answers
How would you describe your overall experience with the coaching you received?	Free text		• "It was a great experience." • "... helping me improve and overcome my problems." • "... just really hurt my spirit and confidence ..."
Did you agree with the assessment that you would benefit from coaching?	Yes	7 (87%)	
	No	1 (13%)	
At what point did you feel that you were falling behind or struggling?	Classes in medical school		
	Clinical rotations in medical school	2 (25%)	
	First clinical rotation in internship	1 (13%)	
	After the first clinical rotation but during internship	3 (37%)	
	Second year of residency training		
	During conferences		
	Other	2 (25%)	• "Busy clinical rotation." • "When I was told about it."
Did you bring up to any supervisors that you were struggling at the time?	Yes	2 (25%)	
	No	6 (75%)	
Why did you not bring it up to your supervisors?	Free text		• "... I assumed that I could come up with my own strategies ..." • "Didn't think it was a problem."
How would you describe your experience with the actual coaching (for example, direct observation)?	Free text		• "Helpful" • "... somewhat embarrassing to be in special extra sessions ..." • "... emphasis on areas that I wanted to improve on was helpful."
Would you recommend doing this differently?	Yes		
	No	8 (100%)	
Do you think you improved during or after the coaching process?	Yes	7 (87%)	
	No	1 (13%)	
How do you think you improved?	Free text		• "Better at handling patient censuses." • "Something clicked ..." • "... more confident over time." • "... critical self-reflection." • "... developed a systematic approach towards admissions." • "More efficient ..."
Did you feel that any of the following knew that you were being coached? (Select all that apply)*	Your peers	2	
	Trainees who were supervising you	3	
	Faculty	3	
	Members of your leadership team	5	
	Nurses		
	Other		

FIGURE 1. Relevant Survey Questions and Results *continued*

Question	Answer	*n* (%)	Examples of Free-Text Answers
Was it helpful or harmful that they knew?	Helpful	2 (25%)	
	Harmful	1 (13%)	
	Depends	5 (63%)	• "... only harmful if your peers know." • "… don't think it mattered." • "... thankful my trainees (and peers) did not know."
Experts in the field of coaching during medical training worry a lot about the potential stigma related to coaching. Do you feel this exists?	Yes	7 (87%)	
	No	1 (13%)	
Did you experience it?	Yes	3 (37%)	
	No	5 (63%)	
How did you experience it?	Free text		• "... needing remediation propagated itself throughout the year despite improvement." • "... being disciplined like a child." • "… luckily was not the one experiencing it personally but involved. But personally and psychologically I felt like I had failed."
How would you improve the coaching process to remove this stigma?	Free text		• "Have everyone get coaching." • "Introduce it during orientation." • "Make it an option even for people who aren't deficient."

accomplishing tasks, efficiency with admissions, and developing systematic approaches to admissions.

Most respondents agreed that stigma could be attached to coaching (n = 7); two residents reported personally experiencing stigma, and one resident reported witnessing differential treatment of a struggling intern being coached by other residents. Stigma was described as internal struggles, and feeling like a failure. Participants recommended several strategies to address the perception of stigma, including publicizing coaching at the beginning of internship, offering coaching to everyone, and hiding coaching from peers.

Discussion

Although remediation programs are being developed to address underperforming learners in medicine, little is known about learner perceptions of coaching as a remediation effort. We believe ours is the first qualitative study that aims to understand learner perceptions of the coaching process and the potential unintended consequences of remediation related to stigma.

Most important, most underperforming learners within our undergraduate and graduate medical education programs perceived coaching to be a successful intervention. This perceived improvement highlights the potential utility and value of coaching as a remediation tool for learners across multiple medical educational settings.

Our survey also found that the majority of learners agreed with the need for remediation, yet a minority brought up their struggle to a supervisor. Interestingly, we found that most learners did not seek assistance due to the belief that the underperformance was an acute issue or general unawareness of deficits, rather than being hindered by the perception of stigma. Concomitant with the notion that underperformance was an acute issue, learners noted awareness of underperformance during transition periods in training, specifically during clinical rotations in internship year or during clinical rotations in medical school. This finding suggests transition periods may be the optimal time to publicize and institute remediation programs, as well as to encourage self-identification.

Regarding perceived stigma among remediated learners, although it has been hypothesized to be significant among struggling learners, a minority of our participants reported personally experiencing stigma. Notably, medical students who received coaching did not experience stigma. In contrast, the residents who participated in the structured coaching program reported feeling stigmatized by the intervention. In

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Our study suggests underperforming learners perceive structured coaching programs positively, and the majority note the intervention to be successful.

particular, residents reported a feeling of disappointment in themselves, with one individual citing challenges with being labeled as a struggling learner. Given that we performed a single-center survey with a small number of learners, further studies are warranted to evaluate the different perceptions of stigma among various levels of learners, residencies, and institutions.

Limitations of our study include its small sample size and the fact that our findings may be subject to nonresponder bias. Additionally, our survey was performed in a single institution with an established coaching program; therefore, the perception of coaching and associated stigma may have been less than experienced elsewhere. However, despite these limitations, we feel that this survey represents a novel assessment of learner perceptions of coaching as a remediation program, and serves as hypothesis-generating tool for further research.

Conclusions

Our study suggests underperforming learners perceive structured coaching programs positively, and the majority note the intervention to be successful. Interestingly, among underperformers, the majority self-identified as "struggling," yet few sought assistance from supervisors. Additionally, based on our data, although stigma was thought to be present, the majority of learners did not experience it. In addition, the perception regarding presence of stigma did not affect the perceived success of the coaching intervention.

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Increasing Clinic Utilization in an Outpatient Clinic

Benign hematology offers primary care services to a growing patient population with nonmalignant, yet life-threatening and chronic blood diseases. Clinical practitioners often combine hematology with another subspecialty, often oncology, to maintain an adequate volume of practice. However, nationally, a growing clinical shortage of benign hematologists results in lengthy waits for appointments. The Johns Hopkins University Division of Hematology spans across Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center. The division of hematology at Johns Hopkins is atypical in that hematology is a free-standing division in the department of medicine and is separate from oncology. In the division, fewer than 10 physicians with clinical responsibilities serve both campuses. These specialists are responsible for serving the benign hematology patients in the sickle cell center for adults and the anticoagulation management service, for staffing the consult service on inpatient medicine floors and oncology units, and for supporting the pediatric hematology program. Our faculty face the challenge of balancing clinic effort, inpatient service, and international work, plus attending to other faculty commitments, participating in conferences, and supporting their own research endeavors. Meeting all of these responsibilities is critical for the professional success of the faculty, but with such diverse and complex provider schedules, innovation is paramount to create new and effective methods to manage efficiently access to outpatient clinics.

At the end of July 2016, the median waiting period for a new patient appointment was 91 days, though the scheduling rate was an average of only 81%. (We defined scheduling rate as the total number of booked hours divided by the total number of available hours.) Even among the providers, a high level of disparity of scheduling rates existed. Some providers were overbooking at 140%, while others were underbooking at 57%. On average, 10 hours of clinical appointment slots per month remained unused and available. If filled, they could accommodate 10 new patients or 20 followup appointments, reducing the wait time as much as six months (depending on the provider) or creating opportunities for urgent add-on patients referred by other providers across the health system. Additionally, the division had hundreds of patients on waitlists. Patients often preferred to be placed on a waitlist instead of scheduling an appointment to circumvent the lengthy waiting times, but no centralized waitlist used by all schedulers existed. In fact, some of waitlists were simply paper notes kept by a single individual. Collectively, these issues resulted in lack of access to care, lower patient satisfaction, and potent patient safety issues if patients were unable to be seen by a provider in a timely manner.

While our hematologists see a considerable number of international and out-of-state patients in our outpatient clinics, the majority of patients are local to the Baltimore region. As a result, we considered interventions focused on local patients. To address the patient access problems, the division and department administrative teams collaborated with faculty and other members of the care team between August 2016 and January 2017 to implement several interventions based on Lean methods and principles (1). Using the distribution data, we gained support for several proposed interventions.

Benign hematology offers primary care services to a growing patient population with nonmalignant, yet life-threatening and chronic blood diseases.

1. In August, three policies clearly defining scheduling procedures in EPIC were implemented to reduce variation in processes between central scheduling and decentralized, office-based scheduling, managed by the division's medical office coordinators (MOCs).
2. In September, a centralized waitlist in EPIC was created to consolidate waitlist patients and standardize processes across MOCs and central scheduling. The medical office supervisor individually reviewed each patient to ensure he or she had not already been seen in the clinic, and—if he or she had a future appointment scheduled—that the appointment was linked to his or her spot on the waitlist.
3. Based on faculty interviews, the intervention team concluded that providers who were underbooking their clinics were unwilling to add patients to their clinic template because they reported not having enough time for a chart review in advance of the visit. In October, a nurse practitioner started performing chart reviews to ensure patients were assigned to providers based on the patient's needs and the providers' expertise. The barrier for underbooking was removed and physicians were asked to add more patients to their schedules.
4. Finally, the scheduling team ensured all provider templates in EPIC were changed to better accommodate their competing research and administrative duties, while not creating unnecessarily obtrusive administrative hurdles.

By late October, after only eight weeks of initial interventions, the scheduling rate increased to 91%—a 10% improvement in just three months.

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With such diverse and complex provider schedules, innovation is paramount to create new and effective methods to manage efficiently access to outpatient clinics.

The last intervention in the hematology clinics was the implementation of EPIC Fast Pass, a tool in the electronic health record that allows patients on a waitlist to receive offers for earlier appointment slots (2). Based on the ZIP codes of our patients, all the providers agreed Fast Pass would be an appropriate tool to implement for our patient population. Because of the amount of upfront work required to customize the tool to the operating practices of the clinic, this intervention was managed separately and implemented at a slower pace than the interventions described above. EPIC Fast Pass scans the clinic templates for empty slots two to 14 days from the date of service and sends out appointment offers to appropriate patients directly through MyChart (the online patient portal offered by EPIC), text, or email. The application functions only during the hours that MOCs and central scheduling are out of the office (overnight and on weekends) to avoid interference with daily operations. The tool works best in clinics with lengthy waiting times for appointments and high cancellation rates. EPIC Fast Pass was implemented in mid-January and has been successful in placing waitlist patients into earlier clinic appointments. With the implementation of EPIC Fast Pass, the scheduling rate increased by an additional 6%.

Through a series of deliberative administrative actions and a close partnership with our faculty providers, the administrative team was able to systematically reduce the barriers that caused scheduling inefficiency. These interventions would not have been possible without the collaboration of physicians, nurse practitioners, pharmacists, central schedulers, medical office coordinators, and administrators. Now that the scheduling rate has improved significantly, our team has shifted our focus to reducing the no-show rate, which will require the same multidisciplinary team approach to enhance the process of reminding our patients of their appointments.

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AAIM Interviews Jennifer R. Kogan, MD

Jennifer R. Kogan, MD, is a former CDIM president. She is currently the director of undergraduate education and the assistant dean of faculty development at Ruth and Raymond Perelman School of Medicine at the University of Pennsylvania.

Her interviewer is Paul B. Aronowitz, MD, clerkship director in the Department of Medicine at University of California-Davis School of Medicine. He is a former APDIM president.

Before we talk about leadership, can you tell me about some of your insights about faculty development?

Working with faculty is definitely different than working with students and residents. The challenges are around delivering content that is relevant but also delivering it in a way where it is feasible and practical for faculty so that they can actually do the development in light of how busy they are. With students you can just tell them where and when to show up, but with faculty getting them there is far more challenging.

What have you come up with to get faculty together to be developed?

We are experimenting with more virtual, online faculty development. We've created an online orientation called the "digital welcome." Faculty can look at the parts of the orientation that are relevant to the parts of the job that they will be doing. If they aren't going to be working with medical students they can skip the part about how to work with students. It's a much more open learning environment where they have more control of which content they view. We've also developed an online course with brief videos that the faculty can watch and it's attached to a discussion board where they can then discuss the videos. We recently put on one of these courses and 75 faculty members participated. Despite our skepticism, we were surprised but pleased to see that a fair number of them actually used the discussion board.

Any insights about faculty development?

If you can't say it in five minutes, find a way—no one is going to sit and watch a 20 minute video.

What were some of your earliest lessons in leadership?

I learned how important good communication and listening are. I also learned how to be in a leadership role in a place where I'd been a medical student and resident. It was challenging to talk to someone who was older and had been in charge of me when I was a student or resident.

Great mentors are people who have a genuine vested interest in their mentees and want them to succeed. They are great listeners and great communicators, and they help mentees to develop the right goals and help figure out how those goals will be accomplished.

How did you do it?

A lot was just getting used to this feeling of being the "new kid on the block." Good mentorship also helped. I would go into Lisa Bellini's office [the internal medicine program director at that time] and say, "I don't know what to do," and she would give me mentoring advice about how to handle these difficult situations with faculty more senior. I also sought out some good leadership courses that helped me to better articulate my vision, better negotiate with people, and deal with conflict resolution.

What word best encompasses your leadership style?

Collaborative.

What's been your favorite leadership job to date?

I loved being a clerkship director. I loved working with medical students at that stage of their careers. I also really like developing curriculum and I enjoyed figuring out what we were going to include in the clerkship curriculum for the students. At one point, I was also the fourth year subinternship director and I truly enjoyed these roles. I still identify myself

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as a clerkship director even though I'm not a clerkship director anymore.

What was your least favorite part of being a clerkship director?

Grading and dealing with students who were unhappy with their grades and felt like their grades were not representative of their work.

Is that a universal issue for clerkship directors?

Yes. I think we really want to see our students succeed and we want to do everything to help them succeed. But we know what the consequences of certain grades are. It's a tension between your learners, your role as a clerkship director and the need to be able to say that a student has reached a certain level of competence that the student actually has achieved. As clerkship directors and medical educators we have an obligation to help our students be the best that they can be but we also have an obligation to society to be truthful and accurate.

How would you advise a new clerkship director about this challenging aspect of clerkship directing?

The key is to find out as early as possible if a student is struggling in the clerkship so that you can put in place a plan to help that learner get better. That way, at least you feel like you've done as much as possible to help the student succeed. The worst feeling is when you're sitting down doing your grades and you realize that a student has done poorly and has seriously struggled and by then it's too late.

What was the biggest mistake that you made in a leadership position?

Years ago, there was a clerkship student who was on a medicine team with a resident who was exhibiting fairly unprofessional behavior. I ended up talking with the program director about the resident while the student was still on the resident's team. The resident heard about the issue and figured out it was the student still on the rotation and it created a lot of awkwardness—a rather big kerfuffle, in fact. That issue could have waited until the student was done with the rotation and didn't necessarily need to be addressed at that time.

How do you deal with how to be the "bad guy" when there are difficult conversations or situations?

I tend to talk to a lot of people to make sure I'm doing the right thing. But I believe in doing the right thing; it is the driving principle for me. If you're someone who likes people to like you—and I'm one of those people who likes people to like me—you have to remind yourself that it's about making the right decisions. You have to communicate why you're making those decisions and remember that you simply won't please everyone all the time.

How do you stay connected with your learners given that you're now higher up running things?

I have a lot of meetings with the people that are on the ground and dealing directly with the learners. I also see patients and precept in clinic and have continued to keep this because that's how I try to keep my hand in what's happening with our patients, students and residents. People have advised me to give this part of my job up but I won't—it's how I stay in touch. However, I still need to rely on other folks to keep up on some issues, particularly regarding the inpatient aspects of our education efforts.

What thing in your career are you most proud of?

I'm proud of some of the programs that I've developed at Penn, such as our certification program in education for our fellows. I'm also proud of the research I've done that helps us to better understand observation of learners with patients.

What are key features of great mentors?

Great mentors are people who have a genuine vested interest in their mentees and want them to succeed. They are great listeners and great communicators and they help mentees to develop the right goals and help figure out how those goals will be accomplished. They also have the ability to direct their mentees to other people that know things or can help with things that the mentor can't help with. They also have expertise in the areas in which they are mentoring and are competent and kind.

What one or two words of advice do you have for junior faculty who aspire to be leaders?

Find good mentors, whether inside or outside your institution, and recognize that most people need more than 1 mentor. Find an organization that you can call your professional home. For me, this home was CDIM and AAIM. Be reflective about yourself as a leader and try to lead in the areas you think are really important. Finally, realize that you will make mistakes but that it is how we all learn and grow.

Revitalization of One Internal Medicine Ambulatory Curriculum

My assessment three years ago, as I assumed the role of associate program director in charge of ambulatory curriculum, revealed a critical need for system redesign. The Accreditation Council for Graduate Medical Education (ACGME) requirement for a robust, longitudinal ambulatory training experience aligns with the transformation toward high-value ambulatory patient care provided by high-functioning patient-centered medical homes. Many aspects of the enhancement in the organization and delivery of primary care aimed at increased accessibility to patients' primary care physicians come in direct conflict with the education mission, complicating the redesign (1).

Defining the Problem

Resident dissatisfaction with both our continuity clinic experience and the ambulatory medicine rotation existed. Critical deficiencies included poor patient, attending, and nursing continuity within academic health care teams; imbalance between chronic and acute care opportunities; lack of educational content and accountability; limited exposure to subspecialty ambulatory clinics; and absence of competency-based resident assessments.

The Current State

Our main continuity clinic site is part of the Department of Veterans Affairs Medical System in our community; the academic clinic is one of three primary care clinics. Each of our 69 categorical residents was assigned to an academic patient-aligned care team (PACT) with a panel of 80 patients, who are transitioned from graduating third-year residents to incoming interns every three years. Residents were assigned one half day of clinic weekly, with a scheduling template including six 30-minute face-to-face appointment slots. Resident continuity clinics were canceled for their vacations and other leave as well as during ICU and nightfloat rotations. The resident clinic cancellation process was not uniformly followed and no process was in place to add on additional continuity clinics if needed to enhance patient access to care and resident ambulatory learning. In an effort to optimize same-day access to care, patients were frequently scheduled with other residents for acute needs. As a result, patient access and continuity suffered while resident ambulatory clinical and educational experience remained suboptimal.

Recruiting and retaining academic ambulatory attendings and nurses has been a consistent challenge, resulting in disruption within the academic PACTs each academic year. Competing inpatient and outpatient demands for "hybrid" attendings resulted in limited capacity to accurately assess resident ambulatory competency and disrupted exposure to their longitudinal progress along the milestones.

The ambulatory medicine rotation was composed of a month of primary care opportunities with subspecialty exposure limited to ophthalmologic, gynecologic, orthopedic, and procedure clinics. The fragmented nature of the rotation's clinical activities and the absence of educational didactics, resident knowledge and skills assessment, and accountability prevented the rotation from contributing to a meaningful ambulatory experience.

System Redesign

Strengthening the Foundation

We recruited dedicated ambulatory clinician-educators. We secured three full-time academic attendings to serve as the core of our academic clinic.

We designated an ambulatory chief resident and adjusted that job description toward curriculum development and educational didactics as opposed to administrative tasks.

We identified an administrative lead to work closely and collaboratively with program coordinators to open and close resident clinics to optimize patient access and resident time in the clinic while still honoring ACGME duty hour requirements.

Enhancing Patient Access

We changed program vacation policy to ensure resident vacation was scheduled and continuity clinics canceled by August 1 of each academic year. Any non-urgent vacation changes requested within 120 days were denied to prevent patient cancellations.

Non-urgent resident leave necessitating patient rescheduling now requires the resident to personally call each impacted patient to renegotiate a new clinic appointment, preferably earlier than the date of the canceled clinic.

Residents on ICU rotations are now assigned one to two afternoon continuity clinics. These clinics are strategically placed to avoid on-call and post-call days and preferably aligned with the resident's assigned continuity clinic attending to prioritize academic PACT and patient continuity.

We added phone visit slots to academic scheduling templates, creating improved patient access and continuity while educating residents on a vital component of value-based care.

We built resident walk-in clinics with five patient slots each half day of the week. These slots are reserved for patients requiring access same-day or prior to their assigned resident's next continuity clinic availability. These clinics created access for patients assigned to residents on leave, ICU, nightfloat, and so forth. Emphasis is placed on scheduling patients in a way that promotes access and continuity with their health care

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team whenever possible. Resident continuity clinics now have more availability for residents to see their own patients with acute needs.

Optimizing Resident Education and Ambulatory Experience

Chief residents have enthusiastically engaged in transforming continuity clinic into an educational experience by creating continuity clinic didactics that begin each half day of clinic. Twenty-minute didactics follow a three-year systems-based curriculum, delivered in two different formats

- Four to six ambulatory questions facilitated by the attending assigned to staff walk-in clinic.
- Educational video filmed by two continuity clinic attendings performing a brief case-based review of an ambulatory topic with learning objectives, key points, and plenty of humor.

Academic PACT huddles follow didactics; our focus is to review population-based data and enhance team-based, whole-patient care. While our huddles are in their infancy, our commitment to developing them further is strong.

Residents assigned to the ambulatory medicine rotation see the walk-in patients, enhancing exposing to acute primary care.

An academic clinician-educator leads the Yale Outpatient Based Curriculum weekly for residents assigned to the ambulatory medicine rotation.

Second-year medical students join our afternoon clinics as part of their longitudinal clinic experience. The assigned attending selects patients for students to see independently after they spend a week or two shadowing an upper-level resident. Ambulatory rotation residents serve as mentors and teachers for these students.

Residents are leading resident clinic-based quality improvement projects designed to enhance medication reconciliation and clinic discharge communication; statin compliance in diabetic patients; evidence-based protein pump inhibitor down titration or cessation; and continuity clinic panel handoffs.

We reviewed and optimized ambulatory medicine rotation clinical activities to include:

- Subspecialty ambulatory clinics including cardiology, pulmonary, and hematology-oncology.
- Faculty assessment of residents' performance via sub-competency-linked indirect evaluations.
- Accountability for resident attendance to all clinical activities.

Continuity clinic attendings perform semiannual 360-degree subcompetency-linked assessments of residents' skills in managing their continuity clinic panel.

The October 1, 2016, issue of the Journal of Graduate Medical Education included the article "Clinic First: 6 Actions to Transform Ambulatory Residency Training," which outlines action steps to fix primary care residency training as critical elements in high-functioning academic clinics across the country (2).

Design resident schedules that prioritize continuity of care and eliminate tensions between inpatient and outpatient duties. Our system redesign did prioritize continuity of patient care as well as learner continuity with clinician-educators. Because our program remains committed to the traditional model of having one half day of continuity clinic per week, the redesign potentially created tension between inpatient and outpatient duties. Assisting residents in developing the skill set required to balance inpatient and outpatient duties, however, introduces potential benefit.

Develop a small core of clinic faculty. This core is the foundation of our success.

Create operationally excellent clinics. Early data reviews suggest improvement in patient access, continuity of care, and many quality indicators in our academic clinic.

Build stable clinic teams that give residents, staff, and patients a sense of belonging. Marked improvement in communication and teamwork within academic PACTs has led to improvement in team morale and resident satisfaction, as evidenced by our graduate medical education housestaff survey results and ACGME survey results.

Increase resident time spent in primary care clinic to enhance ambulatory learning and patient access. Resident three-year continuity clinic numbers have risen on average about 20% after redesign.

Engage residents as co-leaders of practice transformation. Our ambulatory chief resident and the resident leaders for our resident clinic-based quality improvement projects demonstrate the engagement necessary for practice transformation.

While our long-term goal is to entice more medical students and internal medicine residents to choose careers in primary care, the clearest indicator of a successful system redesign of our ambulatory medicine curriculum came this past spring, when residents selected our ambulatory medicine service for the 2015-2016 Best Teaching Service Award.

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Designing and Evaluating Medical Student Clerkship and Subinternship Experiences on Direct-Care Hospitalist Services

Introduction

Internal medicine clerkship and subinternship directors seek teaching environments for students that maximize patient interaction and high-quality educational content. These experiences have traditionally been delivered in the setting of teams comprising students, interns, residents, and a supervising faculty physician. However, given the steady increase in the number of United States medical school matriculants (1), clerkship and subinternship directors are exploring additional options for clinical training.

In parallel, hospital medicine as a field has grown at an unprecedented pace, with an increasing role in undergraduate and graduate medical education. The 2010 annual CDIM Survey showed 91% of academic internal medicine programs in the United States and Canada utilize hospitalists for supervision of medical students and residents (2). Hospitalists also hold educational administrative positions at many institutions. Within this changing landscape, community and university medical centers have implemented medical student rotations on direct-care hospitalist services, some of which operate in parallel with resident-based teaching services to provide clinical care and robust educational experiences.

At our respective medical schools, the authors designed and implemented medical student rotations on direct-care hospitalist services in response to increasing needs for clinical placements. To evaluate these experiences, we sought feedback from both students and faculty regarding advantages and disadvantages, needs for program success, and future directions.

Our Models

At Harvard Medical School Massachusetts General Hospital, the internal medicine clerkship consists of one ambulatory and two inpatient months. All students rotate for one month on a traditional resident-based team. For the second inpatient month, some students are placed on a direct-care hospitalist team of one or two students and one attending hospitalist. Students work largely with two attending physicians over the course of the month, with no advanced practice clinicians (physician assistants or nurse practitioners) on the teams. To facilitate robust teaching, the daily attending census is limited to eight patients, and students attend twice-weekly formal didactic sessions led by their attending physician. We sought feedback via student focus groups and surveys.

Internal medicine clerkship and subinternship directors seek teaching environments for students that maximize patient interaction and high-quality educational content.

The required medicine clerkship at Medical College of Wisconsin is an eight-week inpatient rotation. Our third-year students rotate for four weeks on a resident-based general internal medicine team and for four weeks on a direct-care hospitalist team, a specialty team, or a community hospital-based team. Either a hospitalist or a nonhospitalist faculty member supervises our resident-based teams, and hospitalist faculty physicians supervise students on the direct-care hospitalist teams. Each direct-care hospitalist teaching team includes a faculty hospitalist, one advanced practice clinician, and one medical student. There is no census cap on these direct-care hospitalist teams, which average 12 patients at any given time. Students complete end-of-rotation evaluations of their faculty after completion of the four-week rotation on each team.

Results

Focus groups and surveys conducted over the first six months on the Harvard Medical School Massachusetts General Hospital experience revealed that students felt working one-on-one with hospitalists allowed them more autonomy and a more comprehensive understanding of their patients compared with their time on the resident service. Students enjoyed participating in case-management rounds; planning postacute care; and opportunities to place orders, prepare discharge summaries, and call consultations. Students reported these activities to be easier when working with faculty compared with their experience on a large team with a resident and multiple interns. Students appreciated routine feedback and felt having only two faculty over the period of a month allowed much time to improve based on feedback. Student concerns included variability in teaching styles among the faculty involved in the service, as well as weekend experiences when their faculty was assigned coverage. We

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FIGURE 1. Common Themes about the Student Experience

Students Enjoy	Students Find Difficult
• One-on-one time with attending • Being the primary responder for the patient • Having a clearly identified and active role in comprehensive patient care from admission to discharge • Variations in patient acuity	• Admitting new patients without resident (near-peer) supervision • Orders needing attending (as opposed to resident) co-signature • Lack of nighttime and cross-coverage experiences

are currently working on surveying faculty experiences and planning faculty developed based on students' experiences and needs.

At the Medical College of Wisconsin, we compiled student evaluation of faculty at the end of rotation for a period of six years (2010 to 2016) and did not find any significant differences when comparing medical student evaluations of faculty on the direct-care hospitalist teams versus traditional resident-based teams supervised by nonhospitalist faculty (figure available online at www.im.org).

Lessons Learned

While our experience is limited to two academic medical centers, we concluded that medical student education on direct-care hospitalist teams may be as acceptable as learning on traditional teams (**Figure 1**). The ideal scenario may be offering students one-half of their rotation in traditional resident-based teams and one-half on direct-care hospitalist teams. Students enjoyed their in-depth interaction and continuity of patient and attending physician relationships on the latter. However, having students rotate on hospitalist services has additional considerations, challenges, and potential solutions.

Workflow

As the census and acuity rises, teaching and learning activities may not be prioritized. Having a census cap or limiting the census toward that cap as much as possible is a potential solution, though this may not be feasible at all institutions. Additionally, utilizing physician assistants or nurse practitioners to offload some clinical duties could allow for better educational experiences for students.

Faculty Engagement, Development, and Support

Faculty commitment to education is key to the success of such rotations. Choosing skilled and interested faculty teachers is imperative, as is investing in a culture of education to help promote teaching skills and interest. Many hospital medicine programs hire junior faculty who will eventually pursue subspecialty training and may not be career hospitalists. If institutions utilize such individuals for medical student education, robust and systematic faculty development during onboarding and continually thereafter is imperative.

At our institutions, all hospitalists have academic faculty appointments and are candidates for teaching awards. Prioritizing faculty recognition helps recruit and retain hospitalists as educators.

While we do not have experience with educational relative value units or protected time for individual hospitalists at our institutions, we propose that employment of physician assistants or nurse practitioners on these teams could also be beneficial for faculty recruitment and development, particularly in community hospital settings.

Student Development

On traditional resident-based teams, residents are first-line instructors for students. Without residents, students rotating on direct-care hospitalist services should receive explicit guidance during their orientation regarding their roles and expectations for attending engagement. Ensuring that students spend portions of their medicine rotation on both types of teams may lead to a more complementary educational experience.

Administrative and Leadership Support for Rotations

Administrative support for scheduling and logistical assistance is necessary for students, faculty, and clerkship directors. Departmental leadership involvement early in the planning phases is also imperative to ensure a cohesive and feasible educational model.

Conclusion

With an expanding number of medical student matriculants, a relatively fixed number of internal medicine residency positions, and an increasing population of hospital medicine educators, many institutions now need to place medical students on direct-care hospitalist teams without residents. Our own experience suggests that the overall quality of learning is comparable and complementary between direct-care hospitalist and traditional resident-based inpatient teams. We feel continued study of student experiences and needs on direct-care hospitalist services is warranted and may assist other programs in optimizing their design.

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