In Response to Bliss et al: Academic Medicine Must Look Inward to Address Leaky Pipelines

TO THE EDITOR:
We read with great interest the paper by Bliss et al on the University of Utah Health Sciences Learning, Engagement, Achievement, and Progress (HS-LEAP) program’s provision of longitudinal support and mentorship for underrepresented in medicine (URM) students. The authors reported less than half of accepted students completed the program and suggested the attrition may be partially due to student specific deficits. In addition to student deficiency concerns, the leaky pipeline of diversity-focused programs also represents the need for academic institutions in general to take an inward look to determine how systems and processes should change to improve URM student retention and promote their advancement. The problem isn’t always with the URM student. Students included as underrepresented in medicine were American Indian/Alaska Native, Black, Latinx, Pacific Islander, Southeast or Refugee Asians, and those from lower socioeconomic and rural backgrounds.

The Association of American Medical Colleges does not provide recommendations for the implementation of pipeline programs, and as such, there are no requirements to address the societal bias and racism that contribute to low numbers of underrepresented minorities in medicine. It is important for pipeline programs to address racism, isolation, low institutional expectations and privilege systems as they impact the success of URM learners. Working from a skills-based only model, or a learner deficiency only model, is to deny the fact that race and racism make up part of a learner’s identity and life experiences, and impact how the learner learns.

Academic leaders must dismantle institutional systems and policies that advantage some learners and disadvantage others. For example, concerns about bias have been raised in medical school admissions and the Alpha Omega Alpha honors society. Academic leaders must promote equity for URM learners and ensure an academic environment that is inclusive and enriching. They must provide funding for URM-specific programing, and advocate for campus-wide policies that support this group.

We commend Dr Bliss and colleagues for their meaningful work in this longitudinal pipeline program and the successes they share despite challenges reported with attrition. The continued success of pipeline programs depends not only on learner ability, but also the academic environment in which the learner is placed. This letter is a call to action for all academic institutions with pipeline programs to look at their academic environments to dismantle systems of racism and privilege that impact the academic success of URM learners. The time is now.

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References


TO THE EDITOR:

Although attrition represents a methodological challenge for evaluating our program,1 we agree that student factors are but a small part of the challenge, and will heed the call for introspection. Attrition of students from the program reflects many of the structural and institutional barriers to which Drs Amaechi, Foster, Robles, and Campbell refer in their letter.2 We recognize and affirm that our under-represented in medicine (URM) students are not deficient in any way and are an essential asset to our institution.3 Opportunities to address institutional deficiencies in serving URM students are abundant, and we will focus this letter on what we can do to address them at the University of Utah.

Health Sciences Learning, Engagement, Achievement, and Progress (HS-LEAP) programming has for many years taught students how systemic racism, White/male privilege, and sexism are detrimental to education and society. HS-LEAP leaders, in addition to preparing students, use their influence to move admissions processes in HS-LEAP and in our graduate programs towards equity. Today, our PhD and physician assistant programs4 no longer use the Graduate Record Examination (GRE), making their admissions processes more equitable. Holistic admissions principles are being used in our MD program. However, like most health sciences centers, our institution has a long way to go to approach equity in admissions and retention. As we succeed in recruiting URM students, our institutional culture must intentionally evolve to welcome these students, value their journeys, and incorporate their individual assets into the tapestry of our health sciences educational programs. Centering the URM student experience requires provision of places in the physical landscape and the curriculum where they can feel seen. Explicit discussions on how systemic racism and privilege systems affect the learning and delivery of educational material will need to be incorporated into multiple programs. The culture change in academic health sciences is in its infancy, but we will nurture it to maturity. We are optimistic that these changes will address some of the institutional causes of attrition from HS-LEAP.

We unite with like-minded scholars across the country in the call for sustained antiracism and antisexism efforts to become pervasive in our institutions. Equity, diversity, and inclusion offices throughout the University of Utah coordinate efforts to center equity for our learners and become a place where all can experience equality of outcomes, regardless of individual circumstances. We will also advocate for making the changes to the institution of academic medicine enumerated in your letter. While it is a long journey, we are prepared for it and will invite your collaboration as we work to undo centuries of systemic racism.


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Another Challenge of Family Medicine Residency Training in Japan

TO THE EDITOR:

Ryuichi Ohta, MD, MHPE, et al identified the challenges in family medicine training in rural Japan.5 According to the study, family medicine residents struggled to adapt to a broader practice range than those taught in medical school. Additionally, we have found that another issue related to their training in Japan exists. Current family medicine residency programs in Japan provide pediatric training in inpatient settings similar to pediatric residency training. The family medicine residents must rotate in pediatrics.
for 3 months to obtain their specialty board certification from the Japan Primary Care Association (JPCA), but no specific outpatient training frequency has been set.\(^2\)

In the United Kingdom, Canada, and the United States, pediatric training within family medicine residencies had been mainly inpatient hospital-based. However, previous reports have recommended either a 6-month inpatient hospital-based training or a 4-week outpatient-based training to experience sufficient outpatient pediatric cases.\(^3\) The current training program in Japan may not provide adequate opportunities for the residents due to the short training periods and decreased outpatient visits due to declining birth rates and improved immunization. As a result, they may not experience the required cases during the family medicine residency set forth by the JPCA (Table 1).

Our facility is one of Japan’s largest and oldest family medicine training facilities for future solo family practitioners on isolated islands.\(^4\) The training program graduates need to cover all island inhabitants’ health problems, including children. To determine whether our pediatric training was valuable to actual family practice, we conducted a paper-based questionnaire survey between November 2017 and February 2018, to 15 island physicians, who graduated from our program. We accepted responses received by March 20, 2018. We analyzed these without identifying the person and the clinic. The questionnaire covered their training periods including numbers and kinds of cases they encountered, and the participants selected their answers from multiple lists. This study was approved by our institutional ethics review board.

Twelve of 15 responses were returned (80%). The results showed that the varieties and number of cases they experienced during the 3-month inpatient hospital-based training varied by rotation season (more cases in the winter season and fewer cases in the summer season). Furthermore, they reported minimal experience with the following types of cases: child maltreatment, obesity, autism spectrum disease, health check-ups, adolescent patient care, and immunizations. These cases are expected in outpatient clinics. However, in the context of inpatient-based training, they did not gain enough experience against the requirement by the JPCA.

Ohta et al. revealed three main themes (educational background, changing environment, driving the learning cycle) and their concepts were effective for the residency education. We are currently planning a multicenter study in Japan to clarify the current pediatric training programs for family medicine residents. After that, we hope to contribute to the development of an ideal pediatric training program for future family medicine practice by incorporating educational concepts suitable for Japanese family medicine residents, as Ohta et al. reported.


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**Table 1: List of the Cases Requiring Experience During the Family Medicine Residency Established by the Japan Primary Care Association**

<table>
<thead>
<tr>
<th>Case</th>
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<tbody>
<tr>
<td>Seizure for children</td>
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<tr>
<td>Viral infection for children</td>
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<tr>
<td>Bacterial infection for children</td>
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<tr>
<td>Bronchial asthma for children</td>
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<tr>
<td>Congenital heart disease</td>
</tr>
<tr>
<td>Developmental disorder (Autism spectrum disease, learning disabilities, Down syndrome)</td>
</tr>
<tr>
<td>Assessment of child maltreatment</td>
</tr>
<tr>
<td>Immunization</td>
</tr>
<tr>
<td>Child health check ups</td>
</tr>
</tbody>
</table>
We agree with them — due to the Navy — therefore, CBME for family medicine remains crucial and must be continued.

Niimura et al’s suggestion is critical for pediatric training in family medicine education during the COVID-19 pandemic. Waves of contagion can be inhibited by proper infection control and the provision of the COVID-19 vaccination. Care and education of children regarding infection control and vaccination can be vital for the prevention of future pandemics. Therefore, CBME for family medicine remains crucial and must be continued.

Rural Family Medicine Education During the COVID-19 Pandemic

TO THE EDITOR:
Masato Niimura, MD, and colleagues have responded productively to our research regarding the importance of pediatric training in family medicine, especially in rural contexts, such as rural island medicine. We agree with them that managing health conditions in all age groups is critical for family physicians. Family medicine education should also include social determinants of health, such as aging societies and the COVID-19 pandemic, and this is particularly important in rural communities. Thus, rural family medicine educators should collaborate with community stakeholders, including citizens, particularly with respect to their concerns about COVID-19.

Considering community needs in family medicine training is critical for effective education. Involvement in community activities expands resident knowledge regarding both medical and psychosocial issues through dialog and shared experiences and allows them to connect identified medical issues with the life experiences of community members. As Niimura et al suggested, rural family medicine trainees and physicians must deal with children in the context of community problems, such as vaccination and health promotion. Adjusting their work to the community and learning from the citizens can improve their skills for assessing community needs and establishing consistent collaborations.

The COVID-19 pandemic has dramatically impacted rural family medicine training. In some cases, rural family medicine education and community-based medical education (CBME) have been withdrawn out of COVID-19 fear resulting in the loss of training motivation within educational organizations. In our own institution, the ongoing importance of rural CBME for the sustainability of rural medical care had to be reinforced. As the fear of COVID-19 continues, each medical educational institution should discuss their aims and motivate stakeholders to provide effective education blended with on-site and online educational methods.

Niimura et al’s suggestion is critical for pediatric training in family medicine education during the COVID-19 pandemic. Waves of contagion can be inhibited by proper infection control and the provision of the COVID-19 vaccination. Care and education of children regarding infection control and vaccination can be vital for the prevention of future pandemics. Therefore, CBME for family medicine remains crucial and must be continued.

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Cost Neutrality of Fourth Year in Military Programs

TO THE EDITOR:
We were delighted to read Douglass et al’s excellent article on financing the fourth year. We would like to augment their evaluation of four civilian programs with perspectives and outcomes from one of the US Navy 4-year sites: Naval Hospital Jacksonville (NHJ).

NHJ is a 13/13/13 full-scope program, approved to add a 4-year track as part of the Length of Training Pilot Project. Due to Navy Medicine restructuring, NHJ graduated seven 4-year residents between the 2016-2017 and...
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delay of all graduates would be challenging.

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implementation of a fourth year in the mili
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services than their civilian peers, and further
have unique military training requirements,
one of which are captured in outpatient visits.
However, while these make military-civilian
comparisons challenging, they do not preclude
a military-military comparison for relative val-
ue using Douglass et al’s construct.

The average military resident and junior
faculty earn (including all bonuses) $88,694
and $159,256 per year, respectively.5 Using out-
patient visits as a proxy for total work output,
this means that a resident is cost neutral if
they see roughly half the outpatient visits of
junior staff. A staff family physician sees ap-
proximately 2,700 patients per year. A faculty
physician sees approximately 800 patients di-
rectly and provides inpatient, maternity, and
newborn care. During their fourth year, PGY-
4 residents saw an average of 822 outpatient
visits while also providing inpatient, maternity,
and newborn care. While admittedly site spe-
cific, this data suggests that, like the civilian
programs evaluated by Douglass et al, mili-
tary family medicine programs are at least cost
neutral regarding 4-year programs.

There are two other challenges to broader
implementation of a fourth year in the mili-
tary. First is the increased service commitment
(each 4-year resident added a year to their ser-
vice obligation), which may deter some stu-
dents. Second is that the pipeline for graduate
medical education is built to accommodate an
anticipated number of needed physicians in a
given year—not only for civilian-type billets
in hospitals and clinics, but also to deploy in
support of military operations. A precipitous
delay of all graduates would be challenging.
However, much like the transition from the in-
terrupted to continuous training paradigms, a
fourth year could be gradually phased in over
time with minimal disruption. Further, as the
military is currently divesting medical billets
as part of its restructuring (Navy Medicine
is slated to lose 24% of its family medicine
billets), the services will be temporarily over-
manned—a perfect time to implement extra
training.


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In Response to “Persistent Impostor Phenomenon Is Associated With Distress in Medical Students”

TO THE EDITOR:

We read with great interest the recent article published in your journal by Rosenthal et al,1 which discusses the impostor phenomenon (IP) experienced by many health care professionals in training, but which is particularly common in medical students.2 As a group of female graduate medical students studying medicine as our second degree on an accelerated curriculum, we were alarmed to read that IP occurs in nearly half of all female medical students,3 and we too share this experience. We agree with many comments made by the authors,1 and would like to share our experiences and thoughts in an attempt to draw more awareness to this debilitating but malleable personality construct.

As a group of consistent high achievers, in keeping with the student group most at risk of IP,1 we have often found ourselves unable to internalize these achievements. For example, though those in our social circles congratulate us on our accomplishments, we are often incredulous to their praise. It is important to note that these feelings are not constant, and we fluctuate in and out of them, in keeping with the theory that this construct is dynamic.1 Importantly, these feelings are lowest immediately following the release of examination results, and highest towards the latter one-third of the academic year. We make the suggestion that the inability to internalize achievement is a by-product of the constant stream of high impact examinations not allowing time for true reflection and an appreciation of one’s achievements. The intense nature of a medical school programme cannot be changed however, but we certainly feel that identifying the fluctuating pattern of IP is crucial for providing support to students in a timely manner.

We have also experienced self-perceived fraudulence, where we feel that we are seen as highly knowledgeable individuals, yet do not feel as such. These feelings of inadequacy were only heightened by the COVID-19 pandemic and our isolation from medical school placements. We hypothesize that these feelings arise from a fear of being unable to fulfill our role as medical professionals as well as the role models we see in training. We have felt these feelings ease when given supportive and encouraging feedback from our superiors on placements, in keeping with the positive effects of supportive feedback previously reported.1 In our experience, supportive feedback that normalized a minor lack of knowledge was most effective and took away feelings of inadequacy. Discussing our feelings with peers has also been very valuable, demonstrating and agreeing with the importance of peer-led counselling in breaking down this personality construct.1

Furthermore, we agree that not only does IP hinder academic performance, but it also affects personal relationships. Experiencing bouts of IP has certainly made us feel alienated from our peers who do not share in our experience, and this is at no fault of our peers, but instead demonstrates the clear need for medical schools to promote a greater awareness of this personality construct. Because of our feelings of alienation secondary to IP thought patterns, we invite the authors to consider whether feelings of alienation, lower self-esteem and self-compassion are causative factors for IP, or a product of the construct.

Furthermore, because of the nature of IP, we have felt that we have needed more emotional support from our peers than those who do not experience IP. Relying on peer support from one another, without an appropriate evidence-based support system in place, is not fair on medical students as a whole and does not provide us with optimum support. We also suggest that perhaps the dynamic nature of IP exists because of the fluctuating availability of peer support, and that an organized and consistent support system could instead keep these negative thought patterns in remission.

Ultimately, we hope we have demonstrated a clear gap in medical school well-being support exists and should be addressed. Using IP scoring systems such as those demonstrated by Rosenthal et al and incorporating these into a structured and organized support system will encourage good mental health and well-being in the future medical workforce. Discussing IP in the medical literature and hopefully eventually in medical schools too will also help normalize these feelings that are experienced by many, which in itself is a useful mechanism in breaking down this negative personality construct. To this end, we would like to thank the authors for an informative article, and for helping us understand we are not alone in our struggle.


Elena Whiteman
Emma Brandstatter
The goal of these partnerships is to provide mental health and public health practitioners (eg, associations, retailers, range owners) and multiple collaborations between firearm advocates and physicians to know that there have been multiple conversations about firearms. It may help firearm safety. Jump start conversations with patients about information about collaborations and resources to discomfort with this topic. Here, I offer information about firearm counseling. Fam Med. 2021;53(3):181-188. doi: 10.22454/FamMed.2021.885221

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References
TO THE EDITOR:
We thank Dr Halloran for her comments regarding our article, “Perceptions and Experiences of Family Physicians Regarding Firearm Safety Counseling.” Dr Halloran highlights the key findings in our study, including the statistically significant relationship between family physicians having formal training and their comfort level with discussing firearm safety with their patients. She also provides important information about ongoing efforts to develop guidelines and suicide prevention materials for those who use, own, and/or sell firearms. We would like to encourage all clinicians, public health officers, educators, and anyone else with a vested interest to join and build collaborations to address concerns over unsafe firearm use within their respective communities. In the same vein, we welcome any reader who is interested to reach out to us with their thoughts on how to better educate family physicians about how to counsel their patients on safe firearm use. Lastly, we would like to present a recent statistic from the Centers for Disease Control and Prevention that did not make it into our original article—in 2019 alone, there were 39,707 firearm-related deaths in the United States—to drive home the need for more education and awareness on this extremely relevant topic.


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