PERSPECTIVES

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Rationale for Advocacy Training in Undergraduate Medical Education

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INTRODUCTION

Advocacy is the outspoken support of a cause or group of people. Within the context of medicine, it includes any individual or organized effort that strives to improve health outcomes, expand the inclusivity of the field or promote awareness of a systemic problem that can be ameliorated through legislative efforts. Examples of advocacy in medicine range from fighting for a patient's costly prescription drug to be covered by insurance, to ensuring that historically underrepresented groups are given the opportunity to achieve a presence in a certain specialty, to contacting legislators to fund efforts to decrease the overcrowding of emergency rooms in public hospitals. Thus, advocacy is crucial across all specialties in the medical field. We believe increasing the exposure of medical students to advocacy training is imperative and will provide them with the necessary tools to beneficially influence the field during their careers. The American Medical Association (AMA) states that physicians must "advocate for the social, economic, educational and political changes that ameliorate suffering and contribute to human well-being" in its Declaration of Professional Responsibility, and other physician and specialty organizations urge such important professional activity as well.[1-7]

Undergraduate Medical Education (UGME) refers to the instruction received during medical school by students when pursuing an M.D. or D.O. degree. Graduate Medical Education (GME), on the other hand, refers to any type of education after completing an M.D. or D.O. degree, which usually includes residency or fellowship training. Both the United States and Canada recognize the importance of training physicians in advocacy at the GME level, however, advocacy training at the UGME level is less cohesive.[8,9] In addition, even at the GME level, though some specialties such as pediatrics do have a requirement for advocacy training, there are no standardized curricula or standards across specialties.[10,11]

UGME currently lacks compulsory advocacy training integration into the medical school curriculum, although The American Council for Graduate Medical Education (ACGME) in the USA and the Royal College of Physicians and Surgeons (RCPS) in Canada recognize training in advocacy as an objective of GME.[12] This could explain the gap between the AMA's vision of professional responsibility and medical students' perception of their duties as future physicians. In a 2014 survey, McCrea and Murdoch-Eaton found that medical students "expressed limited appreciation of the concept of social accountability and acknowledged little explicit teaching around underpinning core concepts such as awareness of local health needs, advocacy and nurturing of altruism."[13] They did, however, recognize "the importance of qualities such as advocacy in their future professional careers." In order to close this gap, UGME should ensure curricular components that foster the nurturing of advocacy are included from an early stage in the instruction of medicine. This will help prevent negative ramifications such as the decline in interest for social issues during medical training, which Bhate et al. describe.[14] Bhate also notes that training in advocacy has been shown to change physician's attitudes towards its practice. Additionally, Press et al. argues that "exposing all medical students to advocacy

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within medicine may help shape and define their perceived professional role."[15] As advocacy in healthcare can contribute to the enactment of regulations and standards that ultimately improve the public's health, students should be exposed to formal training that equips them with the necessary tools to engage in effective advocacy and understand their responsibility for engagement. UGME should, therefore, have a requisite to offer advocacy training that is evidence-based, influenced by clinical expertise and contextualized to account for social, economic and political realities.

Lastly, these advocacy-driven initiatives are likely to lead to an improvement in patient-centered measures such as patient satisfaction. Feuerwerker et al. argue that the creation of a position called "Patient Advocate" by a medical student in pre-clinical years would make patients feel more satisfied with their care in the ED and teach students to actively solve patient's frustrations.[16] In a similar project, Ward et al. show through their "Patient Advocate Project" that outpatient satisfaction survey data from pre-, peri-, and post-provider (patient advocate) periods demonstrate the implementation of a Patient Advocate Project improved overall satisfaction scores in the ED during the peri-intervention period.[17] Knowing that advocacy training can positively impact the quality of care as judged from a patient's perspective should stand out as a driving force to implement these changes at a formative time in the careers of medical professionals: during UGME training.

BACKGROUND

Countries and their healthcare systems are a result of their history. Culture, armed conflicts, social movements, economic crises and the political realities of a nation, among others, are all factors that eventually influence how healthcare is delivered. Therefore, if future physicians want to pursue structural changes to positively affect the public's health, they must understand their country's status quo and the social determinants of health specific to their nation. For instance, in the United States, health insurance coverage status has been shown to predict poor aftercare compliance for pediatric ED patients.[18] In this case, if students lack appreciation of the factors that can negatively impact their patients' health, they will be less likely to recognize the need to counsel them on the value of compliance for the effectiveness of treatment. Furthermore, limited exposure to underserved populations also negatively impacts advocacy. In Canada, Bhate et al. discuss "the growing socioeconomic homogeneity amongst Canadian medical trainees as a potential barrier to advocacy work, especially on behalf of vulnerable populations."[14] If students do not engage in advocacy training early in their education, those without a personal attachment to the underserved or those who lack an intrinsic drive to advocate for them will be less likely to do so during their careers. Currently, we believe that UGME fails to fully equip students with the necessary tools to be drivers of change in healthcare and combat interests that may contradict the wellbeing of the population they serve. Doobay-Persaud et al. supported this notion and developed a scoping review of the literature to identify publications about teaching Social Determinants of Health (SDH) topics in UGME.[19] Out of the 3571 articles screened, and out of the 22 included in the final review, only 10 described "school-wide curricula, of which only three spanned a full year." Limited exposure to SDH components in UGME curricula, therefore, may obfuscate future physicians' views of a patient's circumstances that can best be counteracted by effective health advocacy.

Understanding the social determinants of health on its own can influence the treatment of individual patients, but even a mastery of this competency is insufficient when attempting to establish large-scale structural changes. To this end, it is also necessary to understand the political landscape for a given country and how to use this knowledge to achieve political influence–either as an individual physician or as part of a professional organization. The legislative process in any country is likely to be complex and not part of common knowledge for the average citizen. Since the interests of corporations and lobbyists that have an influence on healthcare legislation may sometimes be at odds with a patient's best interests, it is crucial to have engaged physicians that understand effective ways in which to advocate for the citizens they serve. Hubinette et al., however, propose that isolated curricular interventions are often not enough for students to achieve competency in the skills necessary to become a health advocate.[20] They recommend that successful advocacy instruction "will require a broader examination of processes, practices and values throughout medicine and medical education and will involve education enterprises, organizations and institutions as well as the communities they serve." Similarly, Bhate et al. believe that "the ubiquitous curricular content focusing solely on teaching the social determinants of health is incomplete without the provision of tools for students to address those determinants."[14] This suggests that advocacy training is most effective when UGME students are educated on the factors affecting health outcomes and when they can engage in projects or activities that allow them to cultivate the necessary expertise to address those factors. Long et al. argue that "a curriculum in advocacy and leadership skills that includes an intensive, community-based service-

learning experience is effective at increasing student empowerment and disposition toward community service."[21] Ultimately, it is important for the success of these programs that all stakeholders affected by physician advocacy efforts contribute to the creation of tools that enhance the instruction of advocacy in UGME.

Since legislators enact healthcare policy, Hemphill et al. focus on effective strategies to achieve political influence. These include: 1) to reach out to local legislators (face-to-face contact is preferred), 2) to speak clearly and concisely, 3) to seek mutually agreeable areas and offer to support those initiatives (and respectfully disagree on issues where compromise is not possible) 4) to preempt the critics by anticipating possible criticisms and having sound arguments with which to counter those criticisms and 5) to find allies in professional organizations or groups advocating for similar causes.[22] Additionally, when referring to advocacy by academic Emergency Physicians, Hemphill et al. also argue that they need to publish reports of their policy and advocacy work in the appropriate journals. If physician leaders are not informing their peers and students about their advocacy efforts, it is more difficult to create a collective effort to influence policy in the benefit of patients. These reports of policy and advocacy offer a model that can be used as examples for students during medical school, not only to illustrate relevant positions held by specialty leaders regarding specific issues, but also to inspire students to become advocates in their own careers. Therefore, the role of these skills and approaches to advocacy should be taught in UGME, as it will prepare future physicians to influence policy based on the expertise gathered through their subsequent clinical experience.

METHODS

In order to develop a comprehensive view of the types of advocacy efforts and advocacy training offered worldwide, we conducted a literature search and a web search of advocacy training as it relates to GME and UGME. The secondary objective of this search was to identify ways in which the medical school curriculum can incorporate advocacy training, given its importance across all branches of medicine. The results consisted of a combination of examples of advocacy training modules, individual school initiatives incorporating such training into their curricula, and toolkits provided by schools or professional/resident organizations. One challenge when attempting to standardize advocacy training worldwide comes with the immense variability in political systems and their avenues for advocacy, income levels, social justice issues. To account for these differences, our search was guided with the intent of gathering relevant manuscripts and websites from countries throughout the world.

CURRENT LANDSCAPE AND EXAMPLES TO FOLLOW IN UGME

Though the Australian Medical Council (AMC) requires that Australian medical schools teach health advocacy as part of their training, Douglas et al. illustrate how a formal recognition is not enough.[23] A lack of "broad and specific course learning objectives" can act as a barrier in the enforcement of accreditation requirements. In the United States, only a handful of medical schools have advocacy training programs or elective courses. Some of the current advocacy training programs are the University of Colorado School of Medicine, the University of California, San Francisco and the University of New Mexico, Albuquerque. One of the elective courses with an emphasis on physician advocacy is found at Albert Einstein College of Medicine in Bronx, New York. This advocacy-focused elective course was found to incite students to desire additional reading on complex topics. However, several challenges were found with its condition as an elective course.[24] Firstly, since electives (and any additional reading) could potentially distract from required coursework, the advocacy course presents an inherent conflict with the general curriculum for medical students. Secondly, because the program is not part of the mandatory curriculum, it is less likely to receive funding, so its sustainability is questionable. Advocacy-focused courses are rare, and even when they exist, they may not teach the same content at two different medical schools.

The lack of standardization and its impact on student attitudes and preparedness can be compared with Canada's physician advocacy struggles. While medical students in Canadian schools have the option of developing advocacy skills through a myriad of experiences and optional training courses, Bhate et al. argue that "greater practice complexity and growing health system pressures have recently highlighted opportunities for broader advocacy training in medical school

curricula."[14] Just as professional organizations like the AMA and the AMC consider advocacy training as one of the crucial elements of medical education, Canada has several physician and academic organizations, which the authors use as support for the implementation of a mandatory advocacy training requirement across Canadian medical schools. These physician's associations assert that "if advocacy is to be accepted as an important component of Canadian physicians' practice, as professional bodies have dictated it should, then all physicians upon graduation must possess the skills to engage in it competently."[14]

As mentioned above, the University of Colorado School of Medicine developed the Leadership Education Advocacy Development Scholarship Leadership (LEADS) curriculum track. The track includes courses in advocacy, a summer internship and a mentored scholarly activity addressing population health. Long et al. oversaw the development and implementation of this advocacy track and note that the students involved reported a sense of empowerment, improved self-efficacy and increased likelihood of future engagement in leadership and health advocacy.[21] These findings illustrate a trend that suggests a correlation between increased exposure to advocacy training and the desire for future involvement in advocacy efforts. Advocacy education is not only important for the near future and the current generation of medical students, but also for the sustainability of advocacy as a practice that is ingrained in the everyday practice of medicine. If the accrediting organizations promote advocacy training as a mandatory component of UGME curricula, the outcome will likely be a more abundant and accomplished generation of advocacy mentors for the medical trainees of tomorrow.

Because both Australia and Canada possess single-payer universal healthcare systems, the nature of their health advocacy efforts is slightly different. For example, in the US advocacy often focuses heavily on increasing access of care to uninsured/underinsured patients, while Australian and Canadian physicians may place more of their efforts in assuring an adequate level of funding for the delivery of quality care and research in a certain field. Despite these structural differences, the avenues through which physicians can become involved in advocacy (e.g. contacting a legislator, becoming involved in a professional specialty organization, etc.) are fairly similar. For this reason, the curricular components described in the examples mentioned are useful in the gathering of effective strategies to address issues in which health advocacy could make a tangible difference.

ADVOCACY GUIDES, WORKSHOPS, AND TRAINING PROGRAMS

Formal training on how to become an effective health advocate and linking students, residents and physicians with the necessary resources to get involved in advocacy efforts is a task often undertaken by professional organizations. The Emergency Medicine Residents' Association (EMRA), for instance, developed a brochure with recommendations for those interested in engaging in advocacy.[25] Furthermore, ACEP's website includes national and state advocacy overviews as well as tools for effective state advocacy.[5,26,27] These tools include an outline of the state legislative process, a guide on how to develop a legislative program, effective techniques to interact with state legislators, instructions on how to introduce legislation, a key contact program, directions on how to work with a professional lobbyist, strategies to build a successful coalition, an overview of regulatory agencies and approaches to manage media relations.[27] All of these resources would be valuable for medical schools attempting to add advocacy training to their curriculum. As these organizations are based in the U.S., the additional development of country-specific tools is also necessary to spread this practice globally.

A clear example of training for Emergency Medicine (EM) residents and physicians that seeks to solidify them as "health advocates" is a collaborative effort between medical educators from Canada and Oman to begin health advocacy training in Oman. The workshop themes included "Resident as health advocate", "Teaching and Evaluating health advocacy" and "Social determinants of health". Furthermore, the training introduced the residents to the "many ways in which advocacy can be integrated into medical practice at the individual, institutional, community and societal/governmental levels, with examples discussed for each level."[28] The authors hope this

is serves as evidence of the benefits to push "for innovative curricula that provide the framework for integrating these skills into all levels of medical training."[28] Lastly, the University of Toronto's Fellowship EM training program implemented a formal curriculum to address the health advocate role in EM.[29] This model curriculum can be used by medical schools in Canada and abroad seeking to train their students in advocacy.

These efforts, however, are only found in certain specialties and are largely optional. As stated before, national physician organizations consider advocacy essential to the practice of medicine. However, there is a disconnect between medical students' and these organizations' view of the profession's mission of social accountability. As a result, students report few curricular components that cement awareness of "local health needs, advocacy and nurturing of altruism"; compulsory UGME advocacy training may help bridge the gap and make these values universal in the profession.[13]

RESEARCH AS A TYPE OF ADVOCACY

When developing advocacy training modules, it is important to consider that they can be integrated into components of UGME, such as research. To illustrate this practice, Earnest et al. point out that "application of preventive strategies in populations, the practice of community-based participatory research and the use of process improvement and outcomes research in community health are all methods that translate interventions from individual patient health to broader public wellness."[2] As with any part of the medical curriculum, sustainability is essential. Thus, Earnest et al. emphasize the need for adequate resources for advocacy research, trainings and activities, since "successful advocacy is achievable with both a clearer understanding of its components and deliberate practice from committed physicians."[2] Schools or organizations struggling to find the appropriate funding or research priorities can consult the available literature for guidance. Hansoti et al. discuss research priorities in the context of gender, pediatrics and migrant/refugee health (given the multiple migrant and refugee crises around the globe), whereas Levine et al. discuss barriers for clinical research funding in the context of EM and the need for "increased advocacy for global emergency care research funding."[30,31] Although these examples are specialty-specific, they can be used to highlight the role that advocacy can play in the development of research agendas. These agendas, usually developed through consensus-based expert panels, serve the crucial purpose of generating current medical knowledge tailored for the understanding, prevention and treatment of diseases associated with high morbidity and mortality. Additionally, these agendas attempt to assess the present state of the global burden of disease.

Another example of how the interaction between research and advocacy can be mutually beneficial are pilot research projects. In the Democratic Republic of Congo, Binanga and Bertrand conducted a study that combined the study of efficient methods of advocacy through a public health campaign in which medical and nursing students were involved.[32] The advocacy component sought to "obtain approval from the Ministry of Health to allow medical and nursing students to administer a novel injectable contraceptive, as a first step toward authorization for community health workers to provide the method."[32] In their discussion they also mention that, in the context of family planning, "advocacy toolkits present guidelines for developing communication strategies and materials designed to influence policy decisions, including developing an advocacy strategy; engaging policy makers, health sector leaders, community leaders and the private sector; working with the news media; and other resources."[32] Similarly, Belkowitz et al. conducted a research project on the attitudes, knowledge and skills of medical students before and after they took part in a mandatory community health advocacy training.[33] This initiative incorporated a hands-on capstone project in which they worked in partnership with a local community-based organization (CBO). The authors concluded that a partnership with a CBO "could be beneficial in improving student advocacy knowledge and skills in addressing community health issues and in developing sustainable community partnerships."[33] Taking advantage of research experiences to increase medical student exposure to advocacy training can prove useful when planning the integration of advocacy to UGME. In fact, Press et al. support this idea by stating that "exposing all medical students to advocacy within medicine may help shape and define their perceived professional

role."[15] Because of the impact that medical research and advocacy can have on each other, curriculum committees for UGME should consider the creation of resources that serve as a liaison between advocacy training and research. This can promote early engagement in the development of research projects and agendas and a generation of physicians who are empowered to serve their professional responsibility, not only by accounting for the social determinants of health in their practice, but also by advocating for research (and its funding) that can impact the public's health in a significant way.

POTENTIAL IMPACT OF SPECIALTY-SPECIFIC ADVOCACY

Just as research can allow medical students to precociously engage in advocacy efforts through the development of research agendas, students can gain exposure to advocacy efforts within their specialty of interest. Potential benefits of producing physicians that have engaged in specialty-specific advocacy include future physicians who will be more likely to understand the important advocacy topics in their chosen specialty before they even start practicing. Besides the increased understanding of how to make a change within a certain specialty, they will have developed important leadership skills that allow them to be better communicators and, consequently, better advocates for relevant issues. Indeed, we need a generation of physicians that can adapt to an environment despite the challenges that "changing models of healthcare, financial pressures on the health care system, the chronic disease burden and the aging population" bring and who are able to become leaders in advocating for a patient's wellbeing.[14] Furthermore, engaging in specialty-specific advocacy (based on their stated interest) can provide UGME students with insight into a career in that specialty. Consequently, the medical student decision on what specialty to choose can become a more informed one. For this initiative to be carried out effectively, there will be a need for advocacy mentors and faculty leaders who are able to inculcate a "culture of advocacy" in their students. As Bhate et al. write, "this strategy would be the most resource intensive and involve the most stakeholders, but may be the best opportunity to ensure that a firm grounding of advocacy skills to support physician practice becomes second nature in medical education."[14] If the addition of advocacy training to UGME curricula is accompanied by a group of motivated mentors, medical students will be more likely to recognize their professional responsibility to become a health advocate at one or more of the multiple levels at which advocacy can occur. Finally, mentors can serve as role models who inspire students to become outspoken advocates in their career. In short, these activities allow a student to participate in a particular field in a novel way, rather than direct patient care preceptorships; they allow involvement from the very earliest part of medical school, and perhaps longitudinally within a specialty.

Medical students typically decide on what specialty to go into during the later stages of their third year. Future physicians will be more likely to understand the important advocacy topics in their chosen specialty before they even start practicing. Consequently, increased exposure to these specialty-specific advocacy efforts before making such a life-shaping decision can help them decide on which medical field to choose if they identify an advocacy cause they are particularly passionate about within a certain specialty. In short, specialty-specific advocacy can be utilized as an exploratory tool and also as a way provide medical students unique opportunities in research and career mentorship.

RESOURCES TO AID IN THE DESIGN OF ADVOCACY TRAINING PROGRAMS IN UGME

UGME committees charged with planning effective advocacy education can consult the available literature urging this reform. When it comes to identifying the means through which schools can offer education in advocacy, GME should also be examined for guidance. In a systematic review of advocacy curricula in GME, Howell et al. enumerate the most prevalent forms of training.[12] These include lectures/didactics, small groups/seminars, experiential learning and individual or group projects. GME advocacy curricula emphasize the following themes: health policy/legislative advocacy, persuasive communication (media advocacy, op-eds, public speaking), grassroots advocacy, community partnership and research-based advocacy. On the other hand, UGME also offers valuable models such as the University of Chicago Pritzker School of Medicine's

mandatory Health Care Disparities course, which included "guest lecturers' perspectives on their advocacy experience; reflective essay assignments assessing self-identify as an advocate; advocacy-specific lectures and large group discussions; and participation in small group community projects."[15] Their discussion can also inform the creation of mandatory advocacy curricula in UGME. Croft et al. outline three broad requirements for the execution and evaluation of effective advocacy training: 1) "to create an evidenced-based approach for implementing advocacy training into undergraduate medical education", 2) to measure the outcomes of this training for medical professionals and 3) to assess "the impact of advocacy education and training on patient care and public health."[34] While there is little research in this area, it follows that students participating in such training would improve students' skills for patient-centered care. Indeed, programs described from both Mayo Clinic Alix School of Medicine and the Warren Alpert Medical School of Brown University describe curricular models including advocacy in meeting goals for person-centered care and outcomes in establishing patient trust in general health care delivery programs as well as in interdisciplinary service learning surrounding homelessness.[35,36]

Finally, UGME can take advantage of resources provided by other health organizations in order to shape their advocacy curricula. The World Health Organization's advocacy manual is a useful tool that elucidates the following step-by-step strategy to train health advocates: 1) defining the situation, 2) establishing your goals and objectives, 3) identifying your target audience, 4) developing key messages to influence your target audience, 5) developing and implementing your advocacy plans, 6) engaging media interest and 7) monitoring evaluation and useful tools.[7] The outcomes reported following the implementation of an evidence-based approach should be interpreted, and this assessment should dictate what modifications or components could increase the value of such training. To this end, Bhate et al. also offer components they believe are critical for the development of an UGME advocacy curriculum. From their review of the literature, they identify these as 1) "understanding health care systems and financing", 2) "the provision of social services", 3) "familiarity with the process of policy development" and 4) "although not essential, exposure to political advocacy."[14] Indeed, there are potential impediments to making the fourth component mandatory.

CHALLENGES AND LIMITATIONS OF INCOPORATING ADVOCACY TRAINING TO UGME

One challenge faced by UGME in the implementation of mandatory advocacy training is confronting the time constraints associated with the ever-increasing amount of medical knowledge students must master worldwide. Douglas et al. conducted a series of interviews with faculty leaders involved in advocacy to assess the barriers to health advocacy learning that may hinder medical students at an Australian school. These experts reported that students "perceived the curriculum content covered in population health as not as important as the scientific and clinical knowledge components."[18] Other components found in UGME curricula, which are seen as competing demands for time, include classes which seek to increase medical students' understanding of humanism, value-based care, patient-centered care, global health topics, interprofessional collaboration, etc. For this reason, some argue that this type of training should wait for GME. However, we believe that early engagement is necessary if we are to create a culture that considers health advocacy part of our professional responsibility.

The social contract that exists between physicians and society is one that can be tainted if physicians use their entrusted power to advocate for causes that are not in the public's interests. Because of this potential conflict of interest, some argue that physicians should not be at all involved in advocacy efforts regarding healthcare. However, as stated by Croft et al., "advocacy training can also help providers find equitable and affordable ways for the health care system to honor its social contract."[34] They also assert that "as iterated by the many leaders in medicine and organizations that have called for advocacy training for physicians, its potential benefits far outweigh the possible risks of self-interested or malicious advocacy."[34]

Because of the complexity of both healthcare and advocacy, devising ways in which to assess the success of advocacy training programs will likely become a challenge for UGME. As Hubinette et al. state, health advocacy is a "multi-faceted set of skills that includes ensuring access to care, navigating the health care system, mobilizing resources, addressing health inequities, influencing health policy and creating system change."[20] Assessment methods are described in both GME and UGME literature, but each metric will have to be contextualized to account for the intricacies of the school in which it is implemented, as well as for the patients and/or community served. Fortunately, the literature offers resources for the implementation and evaluation of advocacy training programs. For example, Nerlinger et al. propose an advocacy portfolio, which is intended to serve as a "novel standardized tool provides the foundation for physician–advocates to document advocacy scholarship and further support the health of communities and populations."[37] With this objective in mind, the five evaluative domains identified by the authors are 1) advocacy engagement, 2) knowledge dissemination, 3) community outreach, 4) advocacy teaching and mentoring and 5) advocacy leadership and administration.[37] With the use of these frameworks for evaluation, medical schools can assess and, when applicable, quantify the success of their advocacy education using reliable student data.

On the other hand, Solá and Sánchez discuss their experience working with UGME students and residents through the Latino Medical Student Association Health Policy Summit. In their program they suggest the use of the Centers for Disease Control and Prevention policy analytical framework, which they qualify as a "structured, evidence-based approach to investigating and addressing issues" and consists of five steps: "1) problem identification, 2) policy analysis, 3) strategy and policy development, 4) policy enactment and 5) policy implementation."[38] They believe that this tool–evaluated with over 100 trainees–can contribute to training standardization efforts and "to integrate policy or advocacy content into the standing medical school curriculum through its alignment with curricular competencies."[38] Within this framework, their trainees "approached advocacy and policy through an evidence-based, academic lens, allowing them to better understand the integration of social determinants of health, clinical care and academic development as future physicians."[38] Nerlinger et al. and Solá and Sánchez are examples found in the literature that can guide the development of core competencies and evaluative measures for advocacy training in UGME.

Pivalizza et al. highlight potential barriers for legislative advocacy training in UGME. They note that U.S. school administrators can be reluctant to send "electronic reminders or nonpolitical announcements about educational events in fear of state policy which prohibits use of state 'resources' for legislative advocacy."[39] Furthermore, the authors believe that state medical associations usually prefer to not get involved in specific school curricula and, therefore, policy changes to establish mandatory advocacy training is likely to be met with skepticism. Both regulations and a tendency for inaction at the state level signify important barriers that will need to be overcome in order to make effective advocacy education in UGME feasible.

Since an emphasis on legislative advocacy is usually a theme across proposed advocacy training curricula, Bhate et al. believe that it is important to "recognize that political involvement is a permissible but not required avenue of physician advocacy."[14] Political advocacy might not be as readily accepted as other types of physician advocacy because of the sporadic warnings UGME students receive during their training. They are advised to avoid topics such as religion and politics as much as possible when interacting with patients. Earnest et al. believe that "perhaps physicians tend to generalize this soft, interpersonal clinical boundary and become reluctant to engage in the processes required for effective advocacy."[2] With this in mind, one option is for UGME to exercise flexibility in the implementation of its teaching methods and make projects that have a component of political engagement optional rather than mandatory. However, this should be supplemented with a wide range of non-political or non-legislative initiatives in which students can participate and still acquire the necessary set of advocacy skills.

More generally, Smith and Stewart also discuss potential limitations for academic advocacy in public health, based on qualitative data gathered by interviewing 147 professionals concerned with

public health in the UK.[40] These include: 1) "the tension between policymakers' need for clearly defined proposals and the limitations of traditional academic research for developing such proposals, 2) whether academics engaging in advocacy do so for ideological, rather than empirical, reasons, 3) engaging in significant amounts of advocacy work may compromise a researcher's actual and/or perceived independence which, in turn, can reduce both their academic and their policy credibility and 4) advocacy by 'expert' researchers and large NGOs has the potential to be elitist and undemocratic."[40] The authors, however, argue that all of these issues can be addressed through effective advocacy training that is responsive to the potential obstacles associated with bringing advocacy to everyday medical practice.

CONCLUSION

Advocacy in medicine refers to any individual or organized effort that strives to improve the quality of care, to expand the diversity of the field, or to increase public and governmental awareness of structural problems that can be addressed through legislative efforts. Physician organizations ubiquitously argue that physicians must incorporate advocacy into their careers. Though UGME and GME believe that teaching and practicing advocacy is essential to adhere to the profession's social contract, no uniform curriculum currently exists. We believe that are many potential benefits of having compulsory advocacy training for medical students. These benefits include educating students on the social determinants of health, and showing how to conduct effective health advocacy, including practical, hands-on initiatives like the opportunity engage in important aspects of a specific field though public health, social engagement, research, and mentorship. Hurdles include time constraints associated with the ever-increasing amount of medical knowledge students must master during medical schools, which could be solved by the added opportunity for specific career mentoring while tackling research advocacy or advocacy with a specific social group. Another potential obstacle is developing a framework to measure the impact of these programs at a population level. Fortunately, as discussed in this manuscript, there are examples in the literature which can guide schools in assessing these programs' levels of success. Finally, we anticipate that political advocacy might not be as readily accepted as part of mandatory advocacy training in UGME. One potential solution is for UGME to make projects that have a component of political engagement optional rather than mandatory, while still offering a broad range of non-political or non-legislative initiatives in which students can participate and still acquire the necessary set of advocacy skills. Overall, the purpose of this manuscript was to call for compulsory advocacy training at the UGME level and to offer resources in the available literature that may aid medical schools in the design and implementation of such programs.

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