

## Developing the Next Generation of Physicians

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**ABSTRACT** To improve health care, the USA needs to create a longitudinal medical education system that will develop physicians able to lead the transformation of health care toward a focus on the promotion of healthy behaviors aimed at preventing disease. The development of patient-centered care has been an important step in promoting healthy behaviors. However, to truly develop a meaningful relationship with a patient, a physician must first see them as a person, not as a list of diseases. Medical education should develop physicians able to provide *person-centered* care – moving beyond patient-centered care to focus more broadly on the entirety of the person, for whom being a patient is merely one aspect of their personhood. Restructuring medical education begins with the admission process itself, followed by longitudinal changes at the undergraduate, graduate, and continuing professional development levels that will reinforce the attributes critical for future physicians. The authors view this longitudinal approach through the theoretical framework of situated cognition, exploring personal, environmental, and social factors leading to success; outline several key stages of medical education from matriculation through continuing professional development; and identify potential areas that merit longitudinal efforts to develop future physicians able to promote positive health behaviors.

### INTRODUCTION

The U.S. health care system has rising costs but significantly higher rates of health care associated mortality than other industrialized nations.<sup>1</sup> To improve the quality of health care, the educational system must develop physicians who can effectively lead health care teams in complex systems focused on optimizing health, rather than developing physicians reliant on technology, obtaining unnecessary diagnostics and applying treatment guidelines without addressing the context of their patient. Medical education must move away from training individuals to do the work of a physician, and move back towards the ideal of *being* a physician.<sup>2</sup> This transformation begins with personal attributes that must be consistently fostered over time, and modified as the needs of society change. For this reason, it is necessary to begin any transformation of medical education with the admission process to medical school, followed by longitudinal changes at the undergraduate, graduate, and continuing professional development (CPD) levels that will reinforce the attributes critical for future physicians.

We believe the goal should be to create a longitudinal medical education system that will not only develop physicians able to adapt to the next iteration of our nation's health care system but will develop physicians who are able to lead the transformation of health care towards a focus on the promotion of healthy behaviors aimed at preventing disease.<sup>3</sup> To that end, the professional identity formation and leadership skills required of military medical officers within the military education system can serve as a model for the rest of the nation. Additionally, we view this longitudinal approach through the theoretical framework of situated cognition, exploring personal, environmental, and social factors leading to success. Situated cognition places emphasis on dynamic interactions in potentially complex situations that emulate the practice of medicine. Situated cognition views an event or situation as being located in the specifics of the social dynamic – the participants (e.g., patient, physician, trainees, and other health care providers), the environment or setting (e.g., ambulatory or hospital) and their interactions (See Fig. 1).

The development of patient-centered care has been an important step in promoting healthy behaviors. However, to truly begin developing a meaningful relationship with a patient, we must first see them as a person, and not as a list of diseases. Medical education should develop physicians able to provide *person-centered* care. By person-centered care, we expand on the concept of patient-centered care to focus more broadly on the entirety of the person for whom being a patient is merely one aspect of their personhood. In this essay, we outline several key stages of medical education from matriculation through CPD, and identify potential areas that merit longitudinal efforts to develop future physicians able to promote positive health behaviors (See Table I).

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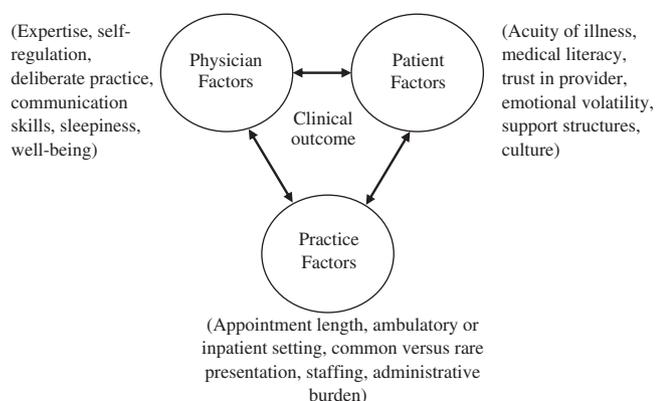
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**MATRICULATION**

Selecting “ideal” candidates for medical school and ultimately for a medical career remains challenging. Current knowledge-based assessments like the Medical College Admission Test (MCAT) and college grade point averages (GPAs) are often the main source of admission criteria for U.S. medical schools. Undergraduate GPAs and MCAT scores have been shown to be predictive of academic performance in medical school.<sup>4,5</sup> Although the medical profession

has been well served by formalizing the licensing process since the first Flexner report in 1910, the attributes of an effective physician extend far beyond academic prowess. Assessments of medical student applicants beyond those focused on fund of knowledge (see Fig. 1), such as maturity and motivation, have long been known to predict clinical performance.<sup>5,6</sup> One of the more difficult tasks for medical school admission committees is how to define and measure the ideal personal qualities in applicants – a task further complicated by significant changes in health care, demand for outcomes in medical education, and competency-based residency training requirements.

Responding to this challenge through its Strategic Vision in 1996, the Association of American Medical Colleges (AAMC) announced its organization should stimulate change to “create a better alignment of educational content and goals with evolving societal need, practice patterns, and scientific developments.” After the first phase of the Medical School Objectives Project (MSOP) was published, a group of leaders in the medical education field identified four critical attributes that a physician must possess: altruism, knowledge, skill, and dutifulness (AAMC, 1998). Studies have searched for consensus from both medical students and practicing physicians on the traits that are most important or desirable in



**FIGURE 1.** A situated cognition approach to the clinical encounter.

**TABLE I.** Key Features for Improvement in the Current Spectrum of Medical Education

	Areas of Focus	Recommendations
Admissions process	<ol style="list-style-type: none"> <li>1. Applicant attributes:                             <ul style="list-style-type: none"> <li>– Altruism</li> <li>– Knowledge</li> <li>– Skill</li> <li>– Dutifulness</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1. Increased emphasis on non-cognitive measures                             <ul style="list-style-type: none"> <li>– Medical judgment vignettes</li> <li>– Structured interviews</li> <li>– MCAT 2015</li> </ul> </li> </ol>
Undergraduate medical education	<ol style="list-style-type: none"> <li>1. Communication Skills</li> <li>2. Professional identity</li> <li>3. Leadership</li> <li>4. Scholarship</li> </ol>	<ol style="list-style-type: none"> <li>1. Foundational teaching and assessment in communication                             <ul style="list-style-type: none"> <li>– Essential elements of communication</li> <li>– Meaningful patient interactions</li> </ul> </li> <li>2. Greater emphasis on human context courses and the determinants of health                             <ul style="list-style-type: none"> <li>– Frequent opportunities for self-reflection</li> </ul> </li> <li>3. Work within inter-professional teams</li> <li>4. Develop foundations of life-long learning</li> </ol>
Graduate medical education	<ol style="list-style-type: none"> <li>1. Communication skills</li> <li>2. Academic health center</li> <li>3. Professional identity</li> <li>4. Leadership</li> <li>5. Scholarship</li> </ol>	<ol style="list-style-type: none"> <li>1. Develop meaningful patient relationships                             <ul style="list-style-type: none"> <li>– PCMH immersion</li> <li>– Motivational interview</li> <li>– Culture</li> <li>– Health determinants</li> </ul> </li> <li>2. Faculty development support                             <ul style="list-style-type: none"> <li>– Teaching and innovation</li> <li>– Productivity metrics</li> <li>– Mentorship</li> </ul> </li> <li>3. Inter-professional teams                             <ul style="list-style-type: none"> <li>– PCMH neighborhoods</li> <li>– Integrated health service</li> </ul> </li> <li>4. Quality improvement projects                             <ul style="list-style-type: none"> <li>– Translational research</li> </ul> </li> </ol>
CPD	<ol style="list-style-type: none"> <li>1. Communication skills</li> <li>2. Leadership</li> <li>3. Scholarship</li> </ol>	<ol style="list-style-type: none"> <li>1. Focus on person-centered communication skills                             <ul style="list-style-type: none"> <li>– Impact on patient care</li> </ul> </li> <li>2. Translational research</li> <li>3. Mentorship                             <ul style="list-style-type: none"> <li>– Resident and medical student role-models</li> </ul> </li> </ol>

**TABLE II.** Comparison of the Top 10 Attributes Most Important or Desirable for Physicians to Have as Identified by Surveys of Medical Students (Hurwitz) and by Surveys of Clinicians (Lambe)

	Medical students (Hurwitz et al <sup>8</sup> )	Clinicians (Lambe and Bristow <sup>7</sup> )
1.	Empathy	Recognition that the patient is the primary concern
2.	Motivation to be a doctor	Probity (being honest, trustworthy and acting with integrity)
3.	Good verbal communication	Good communication and listening skills
4.	Ethically sound	Recognition of one's own limits and those of others
5.	Honesty	Pro-social attitude (empathy and non-judgmental)
6.	Ability to work on a team	Ability to cope with ambiguity, change, complexity, and uncertainty
7.	Perseverance	Commitment of life-long learning, competence and performance development
8.	Composure under pressure	Compassion
9.	Emotionally mature/stable	Motivation and commitment
10.	Supportiveness of others	Ability to be a team player

physicians.<sup>7,8</sup> The top 10 attributes cited by physicians and medical students are not only remarkably similar, but interestingly academic abilities are not mentioned in the top ten of either survey (Table II).

Recognizing the limitations of standard knowledge measures and the importance of other attributes, many medical school admission committees are implementing a formal medical judgment vignette, shown to reliably measure morality, altruism, and dutifulness.<sup>9</sup> Applicant performance on medical judgment vignettes has also correlated with history and physical exam skills, problem-solving, professionalism, and motivation.<sup>10</sup> The MCAT 2015 also included sections on psychological, social, and biological foundations of behavior, indicating the increasing importance of attributes beyond basic science knowledge.<sup>11</sup> The decision to admit an applicant is arguably the most crucial step for ensuring well-rounded physicians. A rigorous process focused on both knowledge and other factors would likely save countless resources in remediation efforts downstream. As healthy behaviors become a more central concern of health care, it will be increasingly important for medical school matriculants to be able to engage each individual as a whole person.

**UNDERGRADUATE MEDICAL EDUCATION**

The current system of medical education is significantly influenced by the initial selection process emphasizing test scores. In UME, a series of knowledge-based assessments are used as “gates” students must pass. Inclusion of assessments with an emphasis on other needed skills, such as communication, in the USMLE Step 2 Clinical Skills exam has had a positive impact on medical school curriculum across the country.<sup>12</sup> Although it is vital for students to adeptly use complex medical information while adopting a scientific approach in a dynamic patient care environment (see Fig. 1), it is arguably more critical for students to develop a professional identity which combines the promise of duty, development of expertise, an ethical approach to professional behavior, and the responsibility of becoming self-motivated, life-long learners.<sup>13</sup> Unfortunately, the development of a professional identity is often relegated to a variety of “orphan

topics” over-shadowed by traditional curriculum in organ systems and pathologies.<sup>14</sup> In essence, we must begin to focus more attention on cultivating the formation of a professional identity, and an expectation of future leadership.<sup>15</sup> Regardless of how medical school curricula adapt to the needs of each institution, developing this professional identity with the requisite skills should be the overarching longitudinal theme as a student progresses toward increasing levels of responsibility. Next, we will discuss how this plays into the different phases of UME, pre-clerkship, clerkship, and post-clerkship periods.

The pre-clerkship period begins with establishing a solid foundation in basic medical science, and acquisition of foundational clinical diagnostic and communication skills. As we move toward a healthy behaviors model, communication skills will be a cornerstone for providing high-quality health care and is an important aspect of situated cognition (see Fig. 1). Teaching effective communication skills has already been shown to improve patient satisfaction, shared decision-making, and ultimately patient outcomes.<sup>16-18</sup> At the nation’s only federal medical school, the Uniformed Services University of the Health Sciences (USUHS), we immerse our students in communication skills education on the second day of medical school with structured interviews and role-playing exercises based upon a framework developed out of the Kalamazoo consensus statement in 2001.<sup>19</sup> This framework established the essential elements of communication for a successful interaction: open the discussion, gather information, build the relationship, understand the patient’s perspective, share information, reach an agreement, and provide closure. These elements are introduced as a foundational skill in the pre-clerkship period and are integrated into a variety of clinical settings through role-playing, self-reflection, standardized patient encounters, and real patient encounters. Many medical schools in the USA have moved to a pre-clerkship curriculum that integrates the basic sciences with clinical skills and clinical reasoning. However, they still do not emphasize courses like ethics, humanism in health care, global health and diversity, and others despite the fact that the writing and self-reflection processes of these courses are correlated with long-term educational outcomes.<sup>20</sup> In the pre-clerkship period, there should

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be full integration of basic medical science, clinical skills, and ethics within the real-life patient encounter allowing for a truly multi-dimensional approach best suited for each patient.

The clerkship period is often a series of apprenticeships in major clinical specialties, which take place across a variety of settings from small private practices to large academic medical centers. Given the heterogeneity of our population and the move toward patient-centered medicine, a broad diversity of clinical training locations and settings is a necessary aspect of UME. However, we should continue the pre-clerkship efforts to strive toward greater horizontal and vertical integration across the entire spectrum of UME using unified assessments of communication skills, basic medical knowledge, and clinical skills.<sup>21</sup> Clerkships provide students the opportunity to further develop their professional identity under the supervision of clinical faculty. Recognizing and addressing the factors that impact learning from the perspective of situative cognition (see Fig. 1) is crucial in subverting the hidden curriculum. In this context, the hidden curriculum is defined by how health care is actually delivered, driven by limited appointment times, regulations, and administrative burdens, as opposed to how health care is taught. This discrepancy offers opportunities for current leaders in medical education to help shape the future of health care and underscores the importance of developing future leaders in medical education to continue the transformation of the health care system. To that end, communication skills should be developed not just through role-modeling of clinical faculty but through direct involvement in patient counseling, family meetings, and end-of-life discussions. Additionally, students working within integrated, inter-professional teams of nurses, pharmacists, and physicians across medical specialties foster an understanding of the role of a physician in the context of integrated health care teams with a person-centered paradigm and can help foster a culture of person-centered care.<sup>22</sup>

The post-clerkship period in UME has traditionally been left for “audition” rotations and relatively unstructured clinical experiences.<sup>24</sup> While most medical schools require sub-internships that allow students to take on greater clinical responsibility, there is still significant variability in these rotations with mixed student satisfaction.<sup>23</sup> At USUHS, as with other medical schools, we have recently developed a Capstone Elective, which provides an opportunity for the student to participate in a longitudinal project of advanced scientific inquiry in a chosen area of interest. A hallmark of this program is that students will work under the guidance of experienced mentors to develop basic skills in scholarship that can foster life-long learning. The post-clerkship period should be a time to further increase student responsibility for patient care and to begin putting into practice competencies outlined in the Institute of Medicine report deemed to be critical for future physicians: provide patient-centered care, work in interdisciplinary teams, employ evidence-based practice, apply quality improvement, and utilize informatics.<sup>24</sup> The post-clerkship time is also ideally suited to develop the next

generation of leaders, able to re-design the health care system and lead us out of our current crisis of high-cost care focused on chronic disease and toward person-centered, high-value care focused on healthy behaviors.<sup>25</sup>

## GRADUATE MEDICAL EDUCATION

The next generation of physicians must have a strong knowledge base, but the current health care landscape requires additional skills critical to developing a high value patient-centered health care system focused on promoting health. Physicians must be able to fulfill diverse roles including expert communicator, team leader/member, community advisor, collaborator, educator, and researcher. This is indeed an intimidating list and will require transformation of GME while continuing the mission to educate future physicians to provide patient care that is safe, effective, patient-centered, timely, efficient, and equitable.<sup>26</sup>

Careful attention to the structure of the academic health center and the role of faculty is critical in the transformation of GME. This ambitious curriculum must also be delivered in the context of work hour restrictions and implementation of the Next Accreditation System (NAS).<sup>27,28</sup> The current structure of the Academic Health Center does not easily support innovation, integration of new ideas, medical education research, and translation of research into improvements in health outcomes. It is difficult to conceive of transforming GME without giving proper training to existing faculty, who were taught in a “reactive health care system oriented toward sickness rather than a proactive system oriented toward wellness.”<sup>3</sup> Serious consideration should also be given to adopting more appropriate measures of the productivity of clinician educators to be more closely aligned with the educational mission.<sup>29</sup> Additionally, transformation of GME will be impossible without adequate support, as new initiatives or requirements (e.g., the NAS) are piled onto a system already struggling to keep up.

Teaching, observing behaviors, giving feedback and targeting remediation all require a system that gives faculty sufficient resources to accomplish these tasks. The tenets of patient-centered care, interdisciplinary teams, evidence-based practice, quality improvement, and informatics outlined in the 2003 IOM report should also be further developed in the GME setting (CITE). A robust faculty development program and a health system that encourages this professional transformation will help develop skills necessary for an effective physician-patient relationship.

Patient trust in their provider is a key determinant of treatment adherence and patient outcomes. Trust is essential for a successful patient encounter (see Fig. 1).<sup>30</sup> Trainees may also face difficulties building a meaningful connection with patients. They are often limited by inexperience, attending oversight, and lack of adequate role-modeling by attendings stuck in a physician-centered model.<sup>31</sup> Teaching hospitals and clinics must be encouraged to look for solutions to these

challenges (e.g., clinical co-management with an attending, block scheduling, asynchronous communication).

The internal medicine (IM) residency training program at the Walter Reed National Military Medical Center is one of the few IM residencies to fully immerse our trainees in the patient-centered medical home (PCMH). We attempt to strengthen the relationship between the patient and the health care team by keeping residents and patients in the same “firm” (an educational-practice partnership within the PCMH team). This system allows for patient familiarity with the resident assigned as their primary care provider, as well as clinical faculty and other resident trainees assigned to their “firm” when their resident is unavailable or graduates. Additionally, this system allows for the development of longitudinal teaching and mentoring relationships between residents and clinical faculty. Regardless of the approach, GME training sites must strive to create an environment conducive to the development of meaningful relationships between residents and their patients, and between residents and their clinical faculty.

Residents will need to be competent in patient-centered interviewing, shared decision-making, motivational interviewing, and cultural awareness (see Fig. 1). Not surprisingly, these tasks build upon the major domains found in the essential elements of communication (EEC) previously discussed, and have been reliably applied and validated in the assessment of resident communication skills.<sup>32</sup> Incorporating these essential communication skills into milestones and entrustable professional activities may enable faculty to effectively evaluate trainees’ proficiency in these skills and provide targeted feedback. Faculty role-modeling of effective communication skills based on the EEC will be critical in the transformation from patient-centered care to person-centered care.

Increasingly, physicians will both work within and lead interdisciplinary teams to deliver care where communication with the patient is affected by the collective and individual communication abilities of the team. The provider and the team must strive to build a trusting relationship with the patient. There must be effective communication between the physician, residents, and other team members about health care goals and plans of care. The PCMH model often includes a variety of integrated health services such as health educators, behavioral health consultants, mind/body medicine specialists, nutritionists, social workers, and clinical psychologists. Educating faculty and trainees about these professionals and their capabilities will enable health care providers to leverage inter-professional teams to improve patient care and outcomes. These teams are also well suited to engage in clinical research to address the social determinants of health, such as economic inequality and cultural factors.<sup>33</sup> Medical neighborhoods, a coordinated system of medical providers and institutions outside the PCMH, should function to strengthen the PCMH model, but will require future physicians to be proficient in working within an inter-professional

system.<sup>34–36</sup> Future physicians must also use robust communication skills to establish partnerships with communities that can help to plan community-based interventions.<sup>37</sup>

Many GME training sites struggle with providing opportunities for interns and residents to become involved in meaningful research, quality improvement projects, and patient safety initiatives. Lack of support for faculty development in this area has likely led to a slower than ideal adoption of these principles.<sup>38</sup> Consistent with the new competencies outlined by the IOM, we need to ensure that faculty and trainees alike are fluent in the principles of evidence-based medicine, quality improvement, and patient safety. These principles should be consistently integrated into real-time patient care using clinical decision-making tools and databases to ask clinical questions and evaluate outcomes for patients at multiple levels. Residents should be empowered as future leaders to participate in the improvement of these systems with robust IT and administrative support to prevent external factors from eroding the use of these tools in patient care.

## CONTINUING PROFESSIONAL DEVELOPMENT

Physicians obtain CPD for licensure and board certification requirements, learning new procedural competencies, staying abreast of current research and clinical practice standards, and informing medical practice quality improvement efforts. CPD should facilitate improvement in clinical communication, high quality integrated care, and a scholarly approach to enhanced individual and system practice.

Physicians in unsupervised practices should continue to refine and enhance their communication skills. Medical practice involves complex patient populations such as the economically disadvantaged, chemically dependent, mentally ill, and persons and families confronting complex end-of-life dilemmas. Enhanced communication skills are key to optimizing clinical outcomes in each of these situations.

For years, many have opined that patient-centered communication would improve patient satisfaction, lead to enhanced clinical decisions and improved health outcomes. Patient-centered decision-making, an advanced type of clinical communication, facilitates patient-specific behaviors leading to optimal care plans *directly associated* with improved health outcomes.<sup>39</sup> Poor attention to patient-centered communication and socioeconomic factors has even been associated with greater costs than that of physician failure to adhere to practice standards.<sup>40</sup> Therefore, improvements in patient-centered communication are likely to result not only in improved patient and physician satisfaction, but also higher quality care at a lower cost. There is the potential for even greater benefits with a focus on person-centered, care rather than simply patient-centered care. Optimum physician CPD will enhance person-centered communication as well as bring the newest research and innovative clinical approaches to practitioners. It should also provide cutting-edge approaches to person-centered care delivery that integrates services with patients’

desire, while eliminating services unlikely to improve outcomes or satisfaction of the patient. This type of CPD cannot be delivered only through the passive method of lecture attendance. Rather, it requires didactic sessions followed by practice improvement activities that are reported weeks, months, and years after a CPD event to incentivize and assure long-term change in practice patterns. The didactic sessions can be delivered in-person or online. The follow-on practice improvement activities can be tracked and reported through mobile “apps” or office-based electronic health records (EHR).

Scholarship for practicing physicians should be viewed not just as the ability to pass certifying exams or publish studies. A physician engaged in a scholarly approach to care should demonstrate to licensing and accrediting agencies ongoing improvements in person-centered, higher quality care delivered in an integrated medical system. For example, the National Physicians alliance and several other primary care physician organizations have initiated programs to promote the appropriate use of screening and diagnostic tests to facilitate high-value care.<sup>41–43</sup> Attending CPD events (online or in-person) that describe these programs is useful, but optimized CPD should ask attendees of these sessions to demonstrate implementation of these standards over the succeeding months to years through EHR reviews or internal practice audits. Medical systems could then collate individual improvements into system-wide best practices that could be disseminated at future CPD programs. Reporting also allows the ability to evaluate which person-centered approaches are more valuable than others.

## **DISCUSSION**

Transformation of the medical education system must begin with the admission process. Entrance exams and knowledge-based performance will remain important, but more focus should be placed on the non-cognitive attributes of our medical school applicants and ought to be primary measures of equal value. Innovative methods, such as medical judgment vignettes, should be used during the admissions process to measure key attributes like altruism, dutifulness, conscientiousness, and motivation for medicine. Once admitted, these key attributes need to be nurtured across the spectrum of medical education.

Transformation of UME is challenging, since reform must occur across a wide range of clinical and educational settings. Developing foundational skills in communication, clinical skills, and clinical reasoning through assessments and longitudinal curricula rooted in the realities of patient care (human factors, system factors, and environmental factors) could facilitate this transformation and soften barriers that exist between clinical clerkships and basic science courses. As pre-clerkship periods are compressed, one of the challenges will be to transition from a primary focus on the mastery of large amounts of information to a greater emphasis on appropriate and ethical application of clinical skills and knowledge. This

must occur despite the persistence of national incentives emphasizing successful performance on information-based assessments. Modifying fourth-year curricula will allow medical students to develop basic skills for life-long scholarship as well as several new competencies identified by the IOM as crucial for future physicians.<sup>26</sup> The development of a professional identity and leadership abilities must be emphasized and fostered to transform the health care system.

Implementing change in GME while still fulfilling the dual missions of education and direct patient care is uniquely challenging. Further emphasis on other attributes of a physician beyond knowledge – through mentorship and role-modeling – is necessary to move from patient-centered care to person-centered care. Dedicated time for scholarship will also cultivate a desire for life-long learning necessary for continuing education after graduation and will improve evidence-based practice and patient safety.

At USUHS, we have instituted a Masters in Health Professions Education (MHPE) and PhD in Health Professions Education. These degrees will educate a cadre of health professionals to become leaders and experts in the theory, practice, and research on health professions education. This program will develop a core group of faculty to lead changes for the next generation of physicians and enhance faculty development efforts. The military health systems (MHS) is uniquely positioned to lead the charge in GME reform. As a “closed system” (medical students become physicians in DOD training hospitals and then become faculty in the DOD system), there is an opportunity to explore questions across the continuum of medical education that are not as feasible in other US medical schools. Recognizing this, The Long Term Career Outcome Study (LTCOS) has conducted numerous investigations of our USUHS students and graduates. Finally, hospitals like Walter Reed Bethesda are committed to exploring and testing innovations that could improve care in the MHS. We are providing needed education to those who will be at the forefront of innovation, leading the development of the next generation of physicians.

However, effective communication remains key in developing meaningful relationships with patients, and the cornerstone of providing high-quality health care. Medical knowledge and skills will still be critical, but we must begin to fully integrate communication skills into the realities of patient care (see Fig. 1). Furthermore, we must develop future physicians able to function in an inter-professional environment able to adeptly coordinate effective treatment options founded in medical science and grounded by the context of the individual person under their care. Future physicians must be able to both implement the most sophisticated medical treatments, and also understand that respecting their patient’s personhood can provide the highest quality care. The changes necessary across the spectrum of medical education will require “bold leadership and institutional commitment,” but the benefits of developing a generation of physicians able to transform our health care system from

focusing on chronic disease to focusing on health and person-centered care will be invaluable.<sup>44</sup>

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