Academic Medicine and the Social Determinants of Health

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Social accountability is achieved through a structured and purposeful partnership in action between the educational institution and the wider health structures existing in the community, area or region it serves.

—Boelen C, Pearson D, Kaufman A, Rourke J, Woollard R, Marsh D, et al. Producing a socially accountable medical school: AMEE Guide No. 109. Medical Teacher. 2016;38(11):1078–1091

1.1 What Is Academic Medicine?

The term academic medicine has evolved over generations. While historically academic medicine was synonymous with formal medical education [1], the past few decades have seen it being recognized as a domain where members, in addition to a transfer of knowledge, must demonstrate a culture of sustained and applicable research.

However, while the focus primarily remains on 'teaching, research, and service' [2] in clinical medicine and tertiary care, academic medicine must expand to include primary health care, public health and, importantly, the social and physical environments that impact them [2].

1.2 What Are the Social Determinants of Health?

The World Health Organization defines social determinants of health as, "*the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include*

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Fig. 1.1 The intersection of the five key factors that can contribute to health inequalities. (Source: United Nations Sustainable Development Group. Leaving No One Behind: A UNSDG Operational Guide for UN Country Teams. UNSDG; 2019)

economic policies and systems, development agendas, social norms, social policies, and political systems" [3].

These could include social, physical, and economic risk factors that further up the causal chain can influence health of populations (Fig. 1.1). Their effects in an individual can extend through the prenatal period, along the life course contributing to a range of health inequities leading to mortality, morbidity, and even suboptimal growth and development outcomes in children. These health inequities are typically inequalities attributable to the external environment and are largely unavoidable for the individuals concerned. Poverty and its intergenerational transfer are the underlying determinants for much of the global health inequity. Household food insecurity, limited access to health care, suboptimal living conditions, and lack of resources all contribute to health inequalities. Similarly, educational achievement, women's empowerment, religion, and gender, can all affect health outcomes. Geographical disparities in health are often a consequence of governance, discrimination, economic status, and access to services. Conflict, migration, and natural disasters are also critical social determinants that can create adversities in the living condition and health services, increasing the risk of disease and death. Many also allude to the political and commercial determinants of health; we have largely focused on social determinants of health as they underpin many of the sustainable development goals.

1.3 How Can Physicians Help Address Social Determinants of Health?

The role of physicians in helping circumvent and address social inequities in the population can extend from the patient–doctor interaction to a broader community-based role. Identifying underlying social challenges, providing support to a patient, and helping them access appropriate social services are some of the immediate steps a physician can take. At the next level, the physician can ensure their practice or facility operates in an equity-sensitive manner and facilitates access to services for

the underprivileged or marginalized communities. These could include subsidized services, special outreach camps, or on-site counsellors. In addition, physicians can extend their role beyond their facilities into the community by supporting and implementing collaborative community-based interventions that would help achieve equitable health outcomes in the local population.

Conducting research and generating evidence could influence policy change and advocate for better services. Given their clinical expertise and knowledge, physicians are placed uniquely in a community to help avert and tackle these, often hidden, underlying social reasons for poor health. However, they cannot work in isolation; they must collaborate with multiple sectors to ensure equitable solutions are found. Most importantly, none of this could be achieved without the necessary ambition and initiative to intervene and improve the community's environment and health.

1.4 What Are Boyer's Principles of Academic Scholarship?

In 1990, Ernest Boyer challenged the status quo by presenting an alternate, broader approach to higher education, as compared to the traditional 'teaching versus research' path [4]. He suggested that academic scholarship should encompass more than just research, publishing articles and teaching. He proposed scholarship to be considered a more dynamic and non-linear process where the interrelated scholarships of discovery, integration, application, and teaching could cover the full scale of academic work.

What do the scholarship of discovery; the scholarship of integration; the scholarship of application; and the scholarship of teaching mean? To put it simply the *scholarship of discovery* refers to the process of research and investigation. Next, the *scholarship of integration* underscores the significance of linking knowledge gained to a larger context and 'across disciplines' [4]. The *scholarship of application* is seemingly a self-explanatory term. However, Boyer cautioned *not* to perceive it as a 'one-way street' where knowledge always has to come before application and practice [4]. *Teaching* is a scholarship that focuses on knowledge transfer and student learning.

1.5 What Can Be the Role of Academic Medicine in Addressing Social Determinants of Health?

Globally, medical schools have typically focused on learning and research with the sole purpose of building clinical knowledge and skills. Despite decades of studying subjects such as community medicine or population-based care, with scattered content on determinants of health, the commitment and role of physicians in addressing health inequities remain limited. An enormous gap in the medical curricula exists with the focus being on acquisition of medical knowledge without an emphasis on

health disparities and inequities. Recognizing pervasive health inequalities as well as developing the skills and approaches to addressing them would be an essential competency for any physician trainee in the run-up to the Sustainable Development Goals (SDGs).

However, experience indicates that the mere acquisition of knowledge of social determinants of health and their impact on communities is not enough for trainees to realize their social responsibility [5]. The integration of social determinants of health within the curriculum must be accompanied by an effort to equip the trainees with the right attitude and tools to address these disparities, to the point when they believe that they are not just clinicians who treat sick people, but rather occupy a distinctive position in the community where they are able to address these inequities in a far more effective manner than others.

We feel that the Boyer's principles of academic scholarship would be relevant and valuable tools for effective 'teaching' of social determinants of health and health inequities as part of academic medicine.

1.6 Boyer's Principles of Academic Scholarship, Academic Medicine, and Social Determinants of Health

While the medical curriculum may touch upon or cover social determinants of health and health inequities in some form, self-reported competence, and practice of physicians in addressing social determinants of health remains low [6]. Importantly, as described in surveys, physicians with reported higher levels of competence and involvement were from low-resource backgrounds or had experience working in such settings or in primary care clinics. The common theme noticed was that real-life practical experience is key in ensuring higher awareness, better attitude, and competence amongst physicians for identifying and addressing health inequities and social determinants. On the flip side, only practical experience alone would not be sufficient. If that were the case physicians in low- and middle-income countries would be the most competent in promoting health equity and addressing the underlying social causes of ill health.

Academic medicine must adopt a multidimensional, transformative approach for training future physicians in social determinants of health. For this incorporating *discovery*, the first of the scholarship principles, is important for emphasizing implementation research in health inequities and needs assessment in communities. While research and investigation are critical to the subject [3], the scholarship of *integration* is imperative. Educating trainees on social determinants with simplistic curricul a without providing the perspective on how these inequalities and determinants practically affect health of communities would be pointless. Unless the trainees can grasp the importance of community surroundings, social and economic influences, and cultural sensitivity, their ability to tackle these inequalities would be limited. Academic medicine must main strong ties with public health systems to ensure knowledge, science, and implementation find a way to be integrated with active student and trainee experience within those communities, as much as possible.

The principle of *application* would include the community engagement component where learning from the community and identifying the social and structural determinants of health would be key. Thus, application could be part of the learning process as well as a consequence of the knowledge gained. *Teaching* is the last link which focuses on knowledge transfer and can aid in building the trainee's communication skills and attitudes which are essential in identifying social and health equity challenges.

1.7 What Is the Way Forward?

Strengthening academic medicine especially in LMICs must remain a priority. Promotion of academic research, strong ties with public health systems, innovative solutions to enhance access to information and building linkages between academic institutions in developing countries and academic centres in high-income countries are sustainable actions to improve inventive academic medicine and, ultimately, promote health equity. *The Education of health professional for the 21st century: a global independent Commission* identified transformative learning and interdependent education as key to developing responsive, patient-, and population-centred health systems that can advance equity in health [7] (Fig. 1.2). Thus, the focus should be on learning which creates leaders, who are not only professional or researchers, but rather change agents who can identify and address health disparities.

The 2030 Agenda for Sustainable Development vows 'leaving no one behind'. Achieving equity for the most vulnerable groups has been identified as a key domain for achieving the health and health-related SDGs [8]. The role of academic

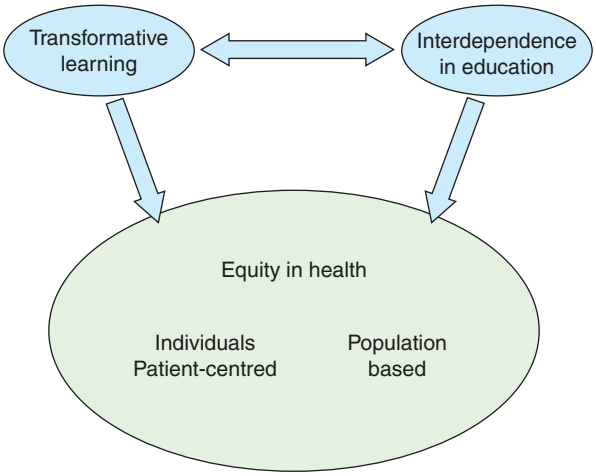

Fig. 1.2 Vision for the future of academic medicine. (Source: Frenk J, Chen L, Bhutta Z, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The Lancet. 2010;376(9756):1923–1958)

medicine and trained physicians is thus central to achieving equitable health outcomes for all, with an 'endeavour to reach the furthest **behind** first' [9].

References

1. Modanlou H. Historical evidence for the origin of teaching hospital, medical school and the rise of academic medicine. J Perinatol. 2011;31(4):236–9.
2. ICRAM (the International Campaign to Revitalise Academic Medicine): agenda setting. BMJ. 2004;329(7469):787–789.
3. CSDH. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva: World Health Organization; 2008.
4. Boyer E. Scholarship reconsidered; priorities of the professoriate. The Carnegie Foundation for the Advancement of Teaching; 1990.
5. Sharma M, Pinto A, Kumagai A. Teaching the social determinants of health. Acad Med. 2018;93(1):25–30.
6. Gard L, Cooper A, Youmans Q, Didwania A, Persell S, Jean-Jacques M, et al. Identifying and addressing social determinants of health in outpatient practice: results of a program-wide survey of internal and family medicine residents. BMC Med Educ. 2020;20(1) https://doi.org/10.1186/s12909-020-1931-1.
7. Frenk J, Chen L, Bhutta Z, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010;376(9756):1923–58.
8. Siddiqi S, Aftab W, Siddiqui F, Huicho L, Mogilevskii R, Friberg P, et al. Global strategies and local implementation of health and health-related SDGs: lessons from consultation in countries across five regions. BMJ Glob Health. 2020;5(9):e002859.
9. Transforming our world: the 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs [Internet]. Sdgs.un.org. 2020. Available from: https://sdgs.un.org/2030agenda