

Social Determinants of Health: An Essential Element in Dental Education

Tamanna Tiwari, MPH, MDS, BDS

The World Health Organization (WHO) has defined social determinants of health (SDH) as “the conditions in which people are born, grow, live, work, and age.”¹ SDH emphasizes that social, physical, and psychosocial environments are the contextual components that impact proximal factors such as individual behavior and lifestyle choices, which in turn lead to optimal or poor health. Although all individuals are affected by SDH, some groups experience health disparities as outcomes of inequalities in income, education, social status, neighborhood, and cultural factors. These factors affect health disparities through a complex interplay at the community, family, and individual levels. Oral health, no different from systemic health, is affected by the same conditions of daily living and the social and physical environments of modern society, which dictate the choices and options open to individuals.

As research in SDH has expanded, there is augmented emphasis on addressing these fundamental causes of health. National and international organizations including the WHO, FDI World Dental Federation, and U.S. Department of Health and Human Services have produced reports that emphasize the importance of social and structural determinants and the causal pathways linking these determinants to health.¹⁻³ These reports not only stress the importance of understanding SDH but direct us towards solutions that include modifying SDH through policy and system-level changes. One of the changes suggested is to train the next generation of health care providers to cultivate a deep understanding of these nonmedical factors affecting health.

In 2010, Frenk et al. proposed a vision of “transformative learning” in health professions education to attain equity in health.⁴ This vision later became the foundation of the National Academies of Sciences, Engineering, and Medicine’s framework for SDH.⁵ Frenk et al. promoted the idea of moving away from biomedical-centric training approaches

to an integrated model that creates an understanding of social and environment frameworks that influence health at population and individual levels. The goal is to produce health care professionals who are competent to innovate, adapt, and respond to the changing demographics and needs of the patient population.

Dental schools are striving to incorporate these approaches into their curricula through various means including cultural competency training, models to train students in rural and underserved areas, and interprofessional education to prepare graduates for interprofessional practice.⁶⁻⁸ An example is the introduction in 2015 of a poverty simulation at the University of North Carolina at Chapel Hill (UNC) School of Dentistry.⁹ This activity simulates the experiences and struggles of low-income families and helps students better understand the choices made by individuals living in poverty. Since the poverty simulation was introduced at UNC, other dental schools including the University of Colorado School of Dental Medicine have introduced similar activities for their students.¹⁰ The poverty simulation facilitators reported feeling this activity could make students more empathetic towards low-income and underserved patients and provide a context for their rotations in underserved areas. However, the question remains about the lasting impact of these experiences on students, and the challenge remains to integrate these topics across all four years in both didactic and clinical training.

The American Dental Education Association Commission on Change and Innovation in Dental Education 2.0 (ADEA CCI 2.0) is providing a vision to bring change to dental curricula to include training on SDH through three goals: person-centered care, future-ready practitioners, and transformative learning environment.¹¹ These goals echo the SDH framework presented by the National Academies for training health care professionals.⁵ In addition to the three goals, the ADEA CCI 2.0 has proposed

five domains—technology, education, demographics, health care, and environment—that can act as maps for dental schools to navigate their journeys of change. In this issue of the *Journal of Dental Education*, members of the ADEA CCI 2.0 team provide an overview of the process of integrating SDH into dental curricula from start to end, providing examples of creative approaches used by two schools that have started this journey.¹² As Sir Michael Marmot has emphasized, “If the major determinants of health are social, so must be the remedies.”¹³ Dental education is beginning to embrace this concept in preparing future generations of dentists.

REFERENCES

1. World Health Organization. What are the social determinants of health? At: www.who.int/social_determinants/sdh_definition/en/. Accessed 15 Jan. 2018.
2. Glick M, Williams DM, Kleinman DV, et al. A new definition for oral health developed by the FDI World Dental Federation opens the door to a universal definition of oral health. *J Am Dent Assoc* 2016;147(12):915-7.
3. U.S. Department of Health and Human Services. 2012 environmental justice strategy and implementation plan. Washington, DC: U.S. Department of Health and Human Services, 2012.
4. Frenk J, Chen L, Bhutta ZA, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *Lancet* 2010;376(9756):1923-58.
5. Health and Medicine Division, National Academies of Sciences, Engineering, and Medicine [formerly Institute of Medicine]. A framework for educating health professionals to address the social determinants of health. Washington, DC: National Academies Press, 2016.
6. Behar-Horenstein LS, Warren RC, Dodd VJ, Catalano FA. Addressing oral health disparities via educational foci on cultural competence. *Am J Public Health* 2017;107(Suppl 1):S18-23.
7. Shannon CK, Price SS, Jackson J. Predicting rural practice and service to indigent patients: survey of dental students before and after rural community rotations. *J Dent Educ* 2016;80(10):1180-7.
8. Hamil LM. Looking back to move ahead: interprofessional education in dental education. *J Dent Educ* 2017;81(8 Suppl):eS74-80.
9. Lampiris LN, White A, Sams LD, et al. Enhancing dental students' understanding of poverty through simulation. *J Dent Educ* 2017;81(9):1053-61.
10. Bohland K. Poverty simulation helps dental students gain knowledge, compassion. 2017. At: www.cuanschutztoday.org/poverty-simulation-helps-dental-students-gain-compassion/. Accessed 22 Jan. 2018.
11. Palatta AM, Kassebaum DK, Gadbury-Amyot CC, et al. Change is here: ADEA CCI 2.0—a learning community for the advancement of dental education. *J Dent Educ* 2017;81(6):640-8.
12. Sabato E, Owens J, Mauro AM, et al. Integrating social determinants of health into dental curricula: an interprofessional approach. *J Dent Educ* 2018;82(3):237-45.
13. Marmot M. Social determinants of health inequalities. *Lancet* 2005;365(9464):1099-104.

Dr. Tiwari is Assistant Professor, Department of Community Dentistry and Population Health and Associate Director, Center for Oral Disease Prevention and Population Health Research, School of Dental Medicine, University of Colorado Anschutz Medical Campus, Mail Stop F843, 13065 East 17th Ave., Room 104F, Aurora, CO 80045; 303-724-9539; Tamanna.tiwari@ucdenver.edu.

doi: 10.21815/JDE.018.021

The opinions expressed in guest editorials are those of their authors and do not necessarily reflect the opinions of the *Journal of Dental Education* or the American Dental Education Association.